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College de France

Graduation Thesis - 1851 -

by David Kerr. A. M.

"Treatment of Organic Stricture of the Urethra - by Sound Surgeons."

It is intended in the following pages to bring together & compare the recorded opinions of some of the most eminent surgeons of France on the subject of Stricture of the Urethra & with the view of elucidating some important Practical & practical points in the treatment of this disease.

In adopting this mode of illustration the propriety of which might be called in question, we have taken as a precedent, the principle evinced in a series of posthumous letters by Mr B. B. and some of his contemporaries which appeared edited by Prof. Syme in a late number of the Edinb. Monthly Journal. These letters originally intended to counteract the pernicious effect which the opinions of Sir Everard Home and his supporters were producing on Medical Profession appear to have been published by Prof. Syme with a purpose somewhat similar. and may be regarded as a protest against recent attempts to reintroduce Sir E. Homes doctrines into English practice by proving that even in the "Golden" Age of Cauterization its dangers & insufficiency were generally acknowledged.

In both cases — in the original production of these Letters and in their recent publication has the principle been recognized that in the study of individual subjects such as the employment of cauterization in stricture - a comparative acquaintance or even a mere comparison of the opinions of those who have had extensive opportunities of forming a candid judgment, furnishes useful & practical indications.

The subject of Stricture of the Urethra may be considered as made of a series of practical questions each of which may be judged of individually - the propriety & select some of the most important of these & by submitting them to the test of general experience, a

termine the value which they hold in the Pathology & Therapeutics of stricture.

Among the crowd of such questions which the subject presents there are several which demand peculiar attention from one who is a candidate for the Medical honors of Edinr. From this University has lately emanated a new procedure for the cure of Organic Stricture - the value of which has been justly canvassed in the Lancet and other English Journals. The discussion thus produced has elicited from several London Surgeons eminent in the treatment of Stricture opinions, with regard to the theory & treatment of this disease diametrically opposed to those which we have been accustomed to hear taught from the Chair of Clinical Surgery in Edinr. The Utility, Safety & necessity of Perineal Incision have been questioned - The publication of the Bells letters has been characterized as contrary to the laws of common courtesy & liberality which should characterize all scientific discussions - Cauterization is advocated as being peculiarly serviceable 1st. In stricture of a cartilaginous nature & impermeable to instruments 2nd Strictures of long standing admitting with difficulty small instruments & bleeding more or less freely on their introduction 3d. In irritable stricture.

The Impermeability of Stricture is acknowledged to be a common occurrence in practice & puncture of the bladder from the Rectum recommended as an operation free of danger & inconvenience and preferable to protracted attempts at Catheterism - The most common seat of stricture is said to be the membranous portion of the urethra - The Pure absorption theory of dilatation as taught & practised in Edinr is characterized as always

In the following pages devoted to an examination of the views held
Organic stricture by the living surgeons of Paris many if not all of the abo
points will be brought under consideration; and it appears to us. that the
positive results which we thus hope to obtain may be advantageously em
employed to judge them questions which are still subjects of controversy
in the English Journals—

In the First Section we shall examine in how far an
unanimity of opinion exist as to the situation - Varieties. Cause & mod
of development of Organic Stricture.

In the Second Section we propose to present first a series
general descriptions of the treatment recommended & put in practice by
MM. Civiale. Amussat. Perrone. Segalas. Velpeau. Ricord
Deguerrois. Vidal de Cassis. Cusi d'Etiolles. Lallemand
Mercier Begin. Roux. Jobert. Reybard - Thayer &c - &c.
& having thus by a study of the general views of these surgeons
obtained sufficient data to prevent ambiguity. we will proceed
to compare their testimony as to the value of the diff. modes of treat.
ment by Dilatation - Cauterization: Incision - Excision &c. the
immediate and remote effects (on the urethra) their power simpli
or combined of performing permanent cures. &c. &c. &c -

We had intended in conclusion to devote special attention to the
subject of Cauterization of the Urethra - and by a reference to the past
History of this method of treatment determine in what estimation
was held by the earlier French Surgeons - especially then contemporar
with Desault - Sir Everard Home of Bance

The reasons which have induced us to abandon this purpose & examine in preference the subject of Incision of the urethra - will appear in the concluding part of the thesis -

On the Situation of Organic Stricture -

(Extract from Lancet May 1844 - "Proceedings of Westminster Medical Society May 5th)

"Mr Henry Smith" read a paper on the seat of Stricture of the urethra. He stated that it was a generally entertained notion among the profession, that permanent stricture of the urethra was most frequently situated in the membranous portion of the canal; but he had been led to believe that this was by no means the case. Of 98 specimens of stricture he had found the disease situated in the membranous part of the urethra only in 21 instances - In 77. the stricture was found to be in front of the triangular ligament and in the majority of these the obstruction was seated either in the substance of the bulbous portion of the canal or a little way in front of it.

"Mr Erichsen remarked that strictures were usually situated at the membranous portion of the urethra - If the specimens observed in museums did not exhibit this it must be recollected that it was only the rare cases of the disease which were preserved: and then in the membranous portion were too common to point up.

In commencing. —— Organic Strictures never exist beyond the bulb - They have been described as existing in the prostatic part of the urethra - but we do not know any anatomical preparation demonstrative of this - - - Although they may be situated at any point in the spongy portion there is one which is most

frequently affected the point of union of the bulbous and membranous parts of the urethra × × × When there is but one stricture it is often at the bulb and when there are several there is almost always one at this point.

Mr Malgaigne — Organic stricture exists so rarely beyond the bulb that Mr. Amussat professes never to have met with one at this situation. They affect specially the spongy portion & may take place at any point in its extent. But the most frequent seat is in front of the ligament of the bulb that is in front of the membranous portion.

Mr. Perrève — Stricture may exist at all the parts of the spongy portion but it is met with most frequently at the angle of the urethra. As all authors admit the existence of stricture in the membranous portion I shall also admit it. But I cannot do so without observing that this stricture is extremely rare. For I do not recollect ever having met with it in my practice — I cannot however admit the existence of pendulous stricture — for no one has ever encountered it either in the living or dead body.

Mr. Segalas — Organic stricture may exist along the whole length of the urethra but they become developed most commonly in those parts of the canal in the vicinity of the bulb. Strictures of the prostate are almost always produced by an inflammatory engorgement of the gland.

Mr Ferrey (d'Etioles) — Nineteen twentieths of all strictures are at a distance five or six inches from the meatus — that is to say in the membra

behind the bulb beneath the pubis at the commencement of the membranous part. at that point when the urethra is naturally retracted. With reference to membranous stricture M. Leroy adds "I have myself observed this & have a preparation of this nature in my museum." M. Cooper not only admits the possibility of stricture in this region but places them second in point of frequency — So me this does not appear to be correct.

M. Civiale — The most common seat of stricture is at the bulbous part of the canal, at the junction of its moveable with its fixed part. × × × × If there are several it is the almost invariable rule to find one often the most considerable at the bulbous portion & the other between this & the glans. × × × As to strictures seated behind the bulbous portion it is at present well known that (that except in diseases of the prostate (which do not always cause contraction) the alterations constituting organic strictures are rare at this part of the canal. × × × The membranous part of the urethra is ordinarily large & developed when there is a stricture at the bulb.

M. Dupuytren — M. D. states that his opinions on the situation of stricture are almost identical with those of M. Civiale. He adds "Most has made so much difference of opinion on this subject as the confounding of hypertrophy of the prostate with true stricture. × × × This is fact worthy of observation that notwithstanding all

our researches the most minute and the most persevering we m
still recognize the existence of stricture in all the regions of the
urethra × × As to their most frequent seat this is a point not
determined -

Mr. Begin — Organic strictures occupy in general the spongy regi
& from the bulb to the meatus - Behind the bulb, near th
Lallemand origin of the membranous portion the greater number of stricture
are formed × × Organic strictures may affect the whole le
of the urethra from the glans to the neck of the bladder - T
perforation is generally admitted as incontestable. But co
ners differ as to the most common region - We again repe
that they are most common in the vicinity of the bulb.

M. Ricord — It is true that strictures in the neighbourhood of the bu
are the most frequent of all. × × As to the prostatic portio
it may be affirmed in spite of the observations of Bell &
negations of Sommerring that is sometimes the seat of
stricture not caused by prostatic disease -

M. Mercier — In my opinion the views of Desault that the most
-mon seat of stricture is in the neighbourhood of the bulb is m
conformable to truth - But it appears to me that there are
facts which prove the statements of Sœmmerring & Amussat
to be a little too exclusive -

M. Cruveilhier — Stricture may exist at all points in the canal between
the meatus & the prostatic portion. but almost always it occup
the membranous or the bulbous portion - I have never met with

in the prostatic part of the urethra." He describes several autopsies but no distinct case of membranous stricture. In one "the canal of the urethra was interrupted by a stricture which occupied the head of the symphysis pubis and consequently the membranous part of the urethra. In a second" the stricture occupied the bulbous portion and the neighbouring part of the membranous portion. In a third "there was a fibrous stricture an inch in length on the head of the bulb & in the spongy portion. with considerable dilatation of the urethra between the stricture and the neck of the bladder.

On the Cause - Development & Pathological Nature of the Stricture

The cause of this disease is unanimously referred by French authors to chronic inflammation of the urethra, induced in a large majority of non traumatic strictures by one or several attacks of gonorrhœa.

The importance of astringents (so generally employed in the treatment of this disease) as a cause of stricture is but little acknowledged by French Surgeons & Pathologists - although there are a few exceptions to the general unanimity of opinion. "Blennorragies" says M. Petit in his work 'Leçons de M. Amussat' & still more astringents injections are the most common causes of strictures - But how happens it that individuals are attacked after their use, while in those who have abstained from them it is more rare although they may have had not one but several blennorragies - In sixty five patients in whom observations were made by M. Petit under M. A's direction sixty two had been

treated by injections.

The opinions of M. Amussat on almost every other point of P
Pathology of the urethra – his views on spasmodic stricture – his an
-tomical descriptions & have been generally adopted & it therefore a
pears more remarkable that the value which he ascribes to astr
-gent injections as a cause of stricture is not generally recogni
Thus. in an article in the "Dictionnaire de Médecine" which
adopts verbatim many of M. A's views the foll: passage occurs
"The employment of astringent injections has often been assigne
as a determining cause of stricture – But strictures consequen
on urethritis resemble the obstructions of intermittent fever
In these the Prostate is accused & in the former the astringe
the fact being that the two kinds of obstruction equally are
from prolonged inflammation in the affected parts." In the
Nouveaux elements de pathologie medico-chirurg: by M.
the foll: passage also exceptional appears to attribute impute
to astringent injections "Stricture of the urethra succeeds
most generally to urethritis above all when it has bee
treated by astringent injections" &c &c

The Mode of Development of Organic Stricture. The
modus operandi of the exciting cause is a point much
less unanimously determined "We do not possess" says M.
Civiale "a sufficient number of pathological facts relative
to the state of the urethra in blennorragy to answer this

question satisfactorily - The formation of stricture can only be accounted for in two ways. by chronic inflammation of the mucous membrane or by ulceration - I am inclined to consider the last the most probable reason; for it is difficult to conceive how the effect of this inflammation should be limited almost invariably to a single point in the length of the canal.

Mr. Amussat — when an acute inflammation of the mucous membrane, whatever be the cause that has produced it passes to the chronic stage, one or more points of this membrane may become the seat of an engorgement very circumscribed - which if not always followed by a distinct induration, deprives the mucous tissue of its natural extensibility. x x x. Gradually the urine in its egress, meeting with a point in the canal where its passage is resisted, pushes it forward raises the membrane at the affected part, thus forming a distinct elevation, most distinct posteriorly, which soon becomes an obstacle to the emission of urine — when the Inflammation has involved all the circumference, the urine finding greater resistance presses forwards the mucous membrane in the form of a diaphragm, in the form of a circular bridle, thus forming a valvular stricture ... Another, but much less common manner in which stricture commences, is by diffuse Inflammation, thickening

of the mucous or submucous tissue, or of both combined
M. Ausset at considers this form to be rare idiopathical
and to be generally caused by the acute inflammation co
sequent on the use of caustic—.

Civiale— When the mucous membrane, which lines the excretor
canal of the urine, becomes under the influence of some irri
ating cause - the seat of inflammation, it sometimes happe
that instead of completing all its stages and gradually
abating, it passes from the acute to the chronic state
It then concentrates itself on one point of the canal of u
it modifies the vitality, so that its walls appear to becom
contracted and diminished in a part of their extent;
submucous tissues increase in thickness, acquire greate
consistence, and change their characters— From this,
results that the canal diminishes in diameter, and abo
all loses its dilatability, its elasticity, its suppleness, ess
sial to the double duties which it discharges in man

M. Civiale considers the induration to vary in character, according
the portion of the urethra which becomes affected - I
the spongy portion, the disease generally commence
by a thickening of the mucous membrane but the grea
characteristic of this stricture of the urethra, is the
of stricture at this part of the urethra
rapid and extensive involvement of the submucous an
spongy tissues and it is in this situation that almost all
fibrous and cartilagnous strictures are met with

stricture at the bulb may commence in the same way, but in the majority of bulbous strictures, the mucous membrane has a healthy appearance, and the induration is chiefly confined to the submucous and adjacent tissues. The stricture at the bulb from the laxity of the surrounding tissues seldom except from mal-treatment, undergoes the fibrous transformation.

M. Leroy d'Etolles — as to the nature of the alterations, which produce organic stricture, this is still a disputed point, on which there will probably be no agreement for a very long period — This disease is not like Cancer, Phthisis &c. of which the pathology is ascertained & the therapeutics little known x. The pathological anatomy of stricture leaves much to be desired, and does not furnish such exact results as to lead to a unanimity of opinion.

M. Ricord. The great proportion of organic strictures is incontestably due either to an alteration of the surface of the urethra or to an alteration in its walls.
Engorgement of the whole thickness of the urethral walls is a very frequent cause of stricture, but this does not always exist in the same condition — circumscribed or diffused it may occupy either a single point, or the whole circumference of the urethra, and as in other tissues, it may exist either with ramollissement or induration.
In some cases the fungous degeneration may take place

but generally indurations are produced more or less bo
ing on the cartilaginous state. xxx There is an indurati
to which the theories in vogue have tended to direct th
necessary attention; I speak of those engorgements more co
than is generally supposed, which depend on specific indu
accompanying chancre of the urethra.

M. Dupierris— It is easy I think to explain the manner in which pa
or general inflammation of the urethra acts in producin
stricture. The explanation of this fact presents no difficulty,
we hold M. Ricord's opinion, that the chronic discharge is
chiefly caused by the inflammation of the mucous follicle
In most cases of urethritis, by passing the finger along
urethra, we feel it studded with granular bodies,
which I have always considered to be the follicles in ga
In the event of the persistence of the discharge, that is to s
if the urethritis passes to the chronic stage, the granulati
assume a much more marked character xxx It appears to
me very natural that the continued inflammatory stat
may terminate by induration xxx Inflammation of the
mucous membrane itself is often also a cause of stricture
In such cases, layers of plastic lymph are thrown out
which by their accumulation diminish the calibre of the
canal— It may also happen that this inflammati
terminates by suppuration— In these cases there
a virulent ulcer or chancre which gives rise to flex

papular bridles, carnosities prominent & indurated cicatrices — One may establish an analogy between the mode of origin of submucous organic stictures, and the termination of a simple bubo or phlegmon by induration —

Roche / Lanson / Lenoir — The form of stricture varies according to the intensity of the inflammation, its duration and its nature — When the inflammation is limited to the free surface of the mucous membrane it produces redness and turgescence, but never as has been thought, induration — It does not in consequence determine a permanent obstacle to the excretion of urine ××. When on the other hand inflammation has involved the whole thickness of the mucous membrane, when it has reached the subjacent tissues, it then terminates by hypertrophy, by induration, and this is one of the most common forms of stricture — The mucous membrane is sometimes simply thickened, and it is the projection, the relief which it forms in the side of the canal that prevents the emission of urine. Sometimes a portion of the mucous membrane is as it were cartilaginous, but the induration is continuous — equal — Sometimes on the contrary, one finds small distinct callosities — In the intervals between these, the mucous membrane remains normal, or at least extensile. While the indurated portions are destitute of elasticity & suppleness, and are inextensible, and very resisting — The induration may

extend to the cellular submucous structures, and even
the spongy tissue which these contract, and as it w
strangulate the canal at a part of its extent. ——
A fact, interesting in a diagnostic point of view, has be
obsewed, that nodosities may exist in the spongy he
without forming a projection in the interior of the cana
"with reference to bridles" they may arise from ulceration, w
is rare, or from the effusion and organization of false
membrane.

Dr. Perrine. all organic stictures of the urethra are the result o
thickening of the walls of the canal, in one or more poi
of its extent - This is not the result of a sanguineous
gestion the parts which obstruct the passage of the ur
are, formed by a tissue compact and firm - There is at the point of oblite
an increase of substance - superabundance of it - a gelatin
matter - there is in fact Hypertrophy xxx It is probabl
that organic stictures of the urethra commence by inflam
mation of the mucous membrane, and that, this after a du
more or less long is propagated to the cellular submuc
tissue, and gradually augmenting, finishes by involving
the whole thickness of the canal. The tissues at length
by a mechanism, the action of which we do not under
becomes tumefied, hypertrophied, & produces in the inter
of the canal, the projection which we denominate "stric
of the urethra"...

M. Mercier. - has presented a theory of the formation of stictures - He considers it to be always caused by the atrophy succeeding to inflammatory deposit - He quotes in illustration the manner in which atrophy of venous branches takes place - after limited phlebitis

The Different Species or Varieties of Stricture -

M. Cruveilhier - Modern authors appear to have gratuitously multiplied the organic affections in Stricture of the Urethra - As for me I have never encountered more than one single species the fibrous stricture or more correctly the fibrous transformation of the walls of the canal - a transformation which sometimes occupies only a single point so as to constitute a circular stricture as if a thread were drawn tightly round the canal - sometimes to a more considerable extent eight ten lines or more - Independantly of this difference in extent we must admit the existence of superficial strictures that is limited to the mucous membrane & profound strictures in which the whole thickness of the canal has undergone a fibrous transformation -

M. Leroy d'Etiolles - admits nine varieties - Inflammatory - Fungous - Fibrous - Turgescent or Erectile - Ulcerations - Vegetations Varicose & cartilaginous strictures - The most important of these are the Valvular & Turgescent as the great majority of strictures commence by one or other form -

Valvular. At the meatus they are described as being generally valvular consisting of a small transverse band or fold of thickened mucous membrane adherent below & with a free concave border. At the spongy portion

they generally commence by a turgescence and chronic inflammation - If
treatment be employed the progress of the disease is slow - The cut mucous t
becomes involved & gradually the spongy tissue takes on the inflammatory act
& assumes a dense & fibrous consistence - The external layers of the spongy tis
may retain for a long period their normal character - the stricture then
presents the disadvantages of contractility with it is also dense & unyielding -

M. Leroy considers it a point of the utmost importance to treat such case
by dilatation alone - If the mucous membrane be destroyed by caustic
divided by the scarificator - the disease rapidly advances - The spongy tis
forms a species of hernia in the urethra - becomes inflamed & indurated

M. L. refers the origin of almost all fibrous & cartilaginous spongy stric
to this mal direction of treatment in the first or turgescent stage.

Strictures when situated at the bulb may be either vascular or turges
in their origin - They seldom possess either the induration or the contracti
of strictures situated in the spongy part of the urethra -

M. Amussat. — M. A. divides strictures into four classes - 1. Bridles -
2d Vascular 3d Strictures with chronic congestion or inflammatory induration
of the mucous membrane - 4. Callous strictures which are
formed in the cut mucous & spongy tissues " The vascular
strictures are perhaps the most common - They with the bridles
rarely exceed a line or a line & a half in thickness - xxx There
is however a species of greater breadth - those in which there
is either extreme induration of the mucous membrane or which
are formed by the cicatrix of an ulceration -

Strictures of the third species are more common in the old

than in adults. They are particularly observed in those who have for a long period made use of bougies more or less irritating. M. A. appears to have seen few such cases. Two only are quoted by M. Petit. In both of these which had been long under treatment the p.m. examination revealed extensive vascularity & turgescence of the mucous membrane. M. A. considered the stricture of J. J. Rousseau to be of this nature. His urethra was impassable and yet no organic alteration was found at the autopsy. "A point remarks M. Petit" which confirms this opinion, is, that M. R for a long period made use of the bougies of Daran. His case was thus the same as that of the two patients just mentioned. Sometimes adds M. Petit "the submucous tissue is affected in this form of stricture which renders the case more grave & difficult to cure.

4th Callous stricture. These cases comparatively rare in those who have not been submitted to cauterization, are much more frequent when repeated & profound applications of caustic have been made. They may also be formed by the cicatrization of wounds & fistulas. At the autopsy of such cases the mucous membrane is generally normal & the induration has its seat in the cellular submucous & fibrous tissue. The spongy tissue is also affected. Its cells have disappeared and it is transformed into a white tissue which with the neighbouring structures occasionally forms a cartilage which may acquire the hardness & consistence of cartilage. When the canal is laid open in its whole extent there seldom exists any projection, any sensible elevation but simple constriction of the

diseased part × × If we throw a glance on the representations ...
are given of these diseases one cannot help suspecting that they ...
all either the fruit of the imagination of their respective authors ...
have been designed from the imprints of the unfaithful f...
-nished by exploratory bougies — Never for instance will on...
find in strictures of the urethra however produced such p...
-jections & as are represented in the plates of Messrs Hunt...
Ducamp Deybrand & Civiale —

M. Segalas — Organic strictures are formed sometimes by a bridle or fle...
excrescence which projects into the interior of the urethra — Mo...
generally they consist of a thickening of the mucous membran...
of this canal, or in an induration of the neighbouring cellular
tissue they rarely depend on an accidental tissue developed ...
the walls of the canal. They may be circular & exist alo...
the whole circumference of the urethra or be limited to o...
or more of its sides. Their length varies from the thickness
of a simple membrane to twelve fifteen lines & even more —

M. Civiale — M. C. describes four species of stricture — Bridle or valve shaped st...
Cicatrices. Induration of the urethral walls &c. 1st " The existence ...
these in divers parts of the urethra has been proved by a con...
-siderable number of autopsies. One often observes also the ex...
bougie employed for dilatation become serrated as if by a ligatur...
or a delicate thread × × × Its extent, thickness, consistence ...
duration are extremely subject to vary — Nothing certain ca...
be established on this point — Our knowledge does not ...

on a sufficient series of observations < > All that we can establish reasoning from the data furnished by the imperfect of appearances, or rather those from autopsies which are hitherto too few in number is, that the bridle structures have their seat at the inferior part of the urethra principally at that portion of the canal situated beneath the symphysis pubis. That they rarely occupy the whole circumference that they are most common towards the lower surface that their direction is almost always transverse although they have been seen oblique & even longitudinal. That there may be several one in front of the other but that in most cases there is only one. That their consistence & thickness appear to vary in proportion to the duration & development of the disease. It appears that the folds or valvular structures do not rest stationary — whether from the deposition of coagulable lymph or from the hypertrophy of the submucous tissue the structure gradually acquires extent & consistence.

6th Thickening & induration of the urethral walls — M. C. considers them much less common than the other forms of stricture — to be frequently characteristic of the spongy portion & to be in general produced by badly directed treatment or injury. In advanced cases the tissues are hard, serrated, compact, of a pearly white colour. The submucous tissue & the membrane which covers them are confounded to such a degree, that no trace can be distinguished of its primitive forms. The spongy tissue chiefly diminishes or entirely disappears — Sometimes I have seen this change extend in vain uniformly the whole extent of the urethral canal.

In other cases there may be only two or more wavy indurated points alternating with intervals less distinctly indicated. Sometimes the small cavities thus formed are normal (except in diameter) while at other times the surface is rough & granulated. It is no uncommon thing to see these long & irregular structures after repeated cauterizations.

M. Ciniselli draws an important practical distinction between simple induration & fibrous degeneration. He considers the latter of these to be a or the bulb in uncomplicated cases. "It is worthy of remark he adds that fibrous or callous structures have often been confounded with the valvular. thickened. indurated. elongated variety. In truth the distinction between these two species is difficult to establish on the living & even the dead body. often from the examination being too superficial.

In the present state of the science it is only by what is observed during treatment that we can accurately distinguish during life the fibrous or callous structures. which then exhibit special characters independent of the heat derived from their situation. I have already said that they occupy the most cable part of the penis from the bulb to the meatus. while the valvular elongated indurated variety. is more particularly situated at the angle of the urethra. What distinguishes above all the fibrous structures in the eyes of practitioners is the resistance which they oppose to the means of dilatation. They are undilatable when they have acquired a great development: & as least the temporary dilatation which may be produced does not persist. Very soon after the use of bougies has been interrupted the urethral walls are as much contracted as at first & even more.

Valvular strictures are

other hand situated beneath the arch of the pubis yield to dilatation & thus if conducted according to rules sanctioned by experience may be maintained at least for a long period. This then became people have confounded two species of stricture so different that we find mention made even by very eminent authors of fibrous stricture at the union of the bulbous & membranous portions of the urethra.

M. Dupierris — In the first edition of his work M. D. adopted M. Civiales views on this subject but in the last edition he divides strictures into 1st Strictures beneath the mucous membrane. 2d. mucous strictures including those which are caused by thickening of the mucous membrane itself 3d. ~~some~~ mucous stricture. 4th strictures on the mucous membrane depending on the accumulation of plastic lymph. Carunculæ. those which arise from venereal ulcerations. comprehending vegetations, tubes, cicatrices. The most common of all these lesions is the thickening or induration of the urethral walls.

M. Perreve — There are some strictures which occupy the whole circumference of the canal. They are named circular or annular strictures. There are others which occupy only a part of the circumference above. below. or one side. x x x Strictures are not easily distinguishable but by their extent from before backwards. They present nodular & tuberculous indurations which may be felt by the finger through the external integument. I name them carunculous on account of their resemblance to muscular tissue & of their being formed of well marked fibres. They vary in consistence. At their commencement.

They are soft and dilatable extensible. may be named dilatable stictures but in this. They become more and more consistent & more indurated. Sometimes they even pass into a cartilaginous condition.

M. Mercier — He says that there is an organic structure of the urethra when the walls of the canal have undergone in one or more points of their extent a permanent diminution in circumference in consequence of a change of texture. These appear to him to be the only cases which merit the name of stictures. & the change of texture which abolishes more or less the elasticity of the tissues appears to me to be a character constant & essential. x x x From my numerous researches on this subject I can state as an absolute fact that in all true stictures the walls of the urethra are smooth. white. fibrous & absolutely destitute of vascularity. I may add that M. Cruveilhier has arrived at the same result. Stictures do not differ but in their form their extent their width, their induration. their seat & their number.

M. Marjolin — M. M. adopts M. Amussat's division adding two varieties scarcely admitted by M. A. into his classification. Cicatrices & Vegetations.

M. A. describes the bridle stictures as "characterized by small white fibrous lines situated transversely & generally on the lower wall. little or not at all projecting to the eye. & best distinguished as a dead subject by drawing the nail along the lower wall of the urethra from behind forwards." He adds that the valvular stictures are nothing but bridles occupying the whole circumference.

Lallemand & Ségalas — Divide org: stictures into four classes. 1. Valvular dilatations of the mucous membrane caused by circumscribed ulcerations

2ᵈˢ Thickening of the mucous membrane - the extent of which may vary considerably - Two varieties are described - Sometimes the mucous membrane becomes rough & vascular, bleeds easily - at other times it passes to an almost pulpous condition & becomes white & indurated - In the first case there is great sensibility, contrasting with the callousness of the second

On the p. m. examination - the morbid projection is more marked larger and of greater extent than in the simple vascular structure

3ᵈˢ Sub mucous engorgements - These are described in opposition to 2ᵈˢ. Amussat to be the most common form of idiopathic structure "Without denying that the treatment by cauterization may produce results equally grave. to us it appears demonstrated that the sub mucous engorgements are of all varieties of structure the most common in practice - They do not always exist isolated - Almost constantly the mucous membrane participates in the anatomical alteration which constitutes them - These two forms or varieties of organic structure are in a great proportion of cases united and can ᵉᵗ with difficulty - etc well authenticated cases of their complete isolation - In the mucous canals - the rectum anal - the oesophagus the intestine the larynx we seldom find a chronic submucous induration without a similar change in the mucous membrane -

On the autopsy the stricture point is more fixed & resistant than the other parts of the urethra -

From the preceding pages it appears that Dr. Cruveilhier hypothesis as to the importance of ulceration & cicatrization in producing stricture is not generally recognized - & that in non traumatic strictures it cannot be regarded as a common but as a rare occurrence.

The following extracts may serve to indicate the state in which the question rests -

M. Civiale — Ulcers of the urethra are perhaps not so rare as has been thought. M. Velpeau has reported a case in which ulcer formed at the distance of an inch and a half from the neck of the bladder, a stricture formed by a true cicatrix. smooth dense & surrounded by wrinkled folds directed towards its edges - " These cicatrices may be the result of cured ulcers - In a patient of whom M. Cruveilhier speaks the mucous membrane was found ulcerated in several points & cicatrized towards its orifice. The author makes no mention of stricture but as the ulcerated part was not cicatrized it is not surprising that the canal preserved its calibre.

M. Leroy. — M. L. Leroy testimony to the unanimously acknowledged fact that secondary ulcerations posterior to the stricture are common. "But" he adds "ulcerations may also be primary " " It happens occasionally that the base of the ulcer is already cicatrized for some time & has begun to project into the canal of the urethra while the surface is not yet cured. In this way ulcerations may be found on the stricture itself. " " Almost every one agrees in recognizing the reality of ulcerations of the urethra & of cicatrices

chancres in this canal - In another passage (in which however it is doubtful whether he refers to traumatic stricture) "Analogy & fact equally prove that these (abscesses & cicatrices) are the cause of the most severe species of stricture.

M. Malgaigne - M. M. after giving M. Amussat's division of strictures remarks "It is necessary to add two varieties much more common - ulcerations & cicatrices - which are sometimes like the bridles transverses, sometimes longitudinales."

Lallemand - Although ulcers are rare as a consequence of blennorragy. Begin. yet certain suppurations - little abundant but chronic & rebellious are caused by them. & the cicatrices which are consequent on them may constitute a species of the bridle or valve shaped stricture - x x They do not however produce any distinct series of symptoms & do not leave other p. mortem appearances than strictures caused by simple inflammation -

M. Mercier - Malgaigne has demonstrated that ulcerations are very rare

A second variety of stricture to which allusion has been made by almost all French writers on urethral disease & which it is thought important to examine is 'Strictures from Carunculæ or hypertrophies of the mucous membrane - There appears to be among the surgeons of France a common desire to defend the opinions of the older Pathologists - M. Ricord has written a work on this subject & M. Laugier has attempted to prove that the opinions of the early writers have been misunderstood - & that the words

structure & carnosity were at one time synonymous.

M. Leroy — When almost every one agrees in recognizing the reality of ulceration of the urethra — when the existence of concealed chancres is admitted — it is not easy to comprehend how the production of papillæ or these ulcerated surfaces shd be denied as impossible —
It even appears to me that the destruction or alteration of the mucous membrane is not a necessary condition. Do we not see warts on the corona glandis assume this form without any previous ulceration?— Is it not so in the bladder? And why not so also in the mucous membrane intervening? But there are facts which better than analogy reply to such objections.
Carnosities are developed more particularly in the fossa navicularis when the mucous membrane by its viscosity & texture has greater resemblance to the membrane which covers the glans & prepuce.
During the last fifty years a number of such cases have been observed — They have a different aspect according to the different situations which they occupy. At the neck of the bladder they resemble small polypi while in the other parts of the urethra they are more akin to the ordinary vegetations on the corona glandis. M. Leroy gives a drawing of a urethra in which both species were found — He also describes two other cases which fell under his own observation.

M. Civiale — The existence of these abnormal productions has been proved by a multitude of autopsies — I have met with a small number of them — I have met with a small number of them

I. a case at the Hospital Necker the membranous portion was covered with small granulations of a dirty greyish color some of which adhered slightly to the mucous membrane - which others more constant formed part of it - He describes three cases which he saw in the museum of St Georges Hospital London. "Carunculæ" he remarks "always occupy the fixed part of the urethra"-

M. Malgaigne — M. M. enumerates carunculæ as a form of stricture. "but" he adds "they are much more rare than the other varieties.

Sallmard } — We cannot presume to say that these growths cannot exist
Bigelow } on the mucous membrane of the urethra - since all other analogous membranes offer numerous examples - It is sufficient to say that new researches are still indispensable to prove their existence. to establish their ordinary situations - to determine their treatment.

M. Segalas — Strictures are sometimes formed by a fungous or fleshy excrescence - which projects into the interior of the urethra -

M. Dupuytren — Their importance is often exaggerated - They have been admitted to exist in many cases where it was impossible to demonstrate their existence - But this is no reason why we should fall into the opposite extreme and deny them in toto.

M. Velpeau. — describes several cases under the name of polypi of the urethra

M. Marcias — In his work on the prostate describes a single case in which he had met with vegetations.

M. Ricord — In certain circumstances more common than modern writers would appear to think - the calibre of the urethra is obstructed & its arcs retracted by these vegetations (Carunculæ

of the ancients) denied by Morgagni & Others - but which Bell Hunter. Andral & Baillie have admitted with reason - These ulcerations as Rokitan Lobstein & also Sommerring have observed may be situated at any point in the urethra - I have met with them completely organized at the meatus where they are very common (in both sexes) at the fossa navicularis, and at the membranous part of the urethra - They may sometimes be diagnosed by their tendency to bleed and by their giving a constriction analogous to what an ulcer would experience in preparing the tissues of the uterus - They yield readily to calomel in powder conveyed by a bougie - or to cauterization by nitrate.

A third species occasionally mentioned is the Varicose Structure M. Serres. The existence of varices at the neck of the bladder cannot be doubted - They frequently accompany engorgement of the prostate but in the other parts of the urethra they are far from being generally admitted * * Their existence can hardly be proved but by dissection on the living subject - The abundant hemorrhage produced in certain patients by the slightest contact of a flexible sound - sometimes even producing a jet - induces the belief that nothing but the rupture of a vein could produce such an amount of hemorrhage - I have seen at different times days after the cauterization at the moment when the eschar became detached

M. Depierris - Varices of the urethra on which Desault has so

thought insisted - but of which many hereat surgeons absolutely deny the existence ought not I think to be completely rejected. I have once had occasion to observe a fact which in some measure favours the idea of their existence - Constipation produced a hernia-sac so considerable that the patient became alarmed, did not dare to continue the treatment If this fact establishes a probability it is far from being a Demonstration

M. Ricord — Mr. pointed out the various morbid changes of the urethra vascular developments more or less considerable which to a certain extent diminish its calibre. This vascular vascularity whatever explanation Some ascribing Certain and others adopt is more common in the posterior part of the canal and at the neck of the bladder where it presents a sort of hemorrhoidal condition - This also not with at the anterior part of certain strictures in consequence of the obstruction which they occasion to the venous circulation.

M. Mercier — The veins of the urethra probably more distended the canal so as to cause complete retention of Urine

The Hypothesis brought forward by M. Civiale[?] has not as we have seen been generally adopted — neither does his limitation of organic strictures to a single species coincide with the numerous varieties & forms of stricture which have been described in the preceding pages. On taking however a brief retrospect of what has been written — it appears to us that the division of M. Civiale (if division it may be called) comprehend all the ordinary forms of stricture described by other authors.

The Pathology of this disease has been examined by French Surgeons in two ways — by exploration with the bougie & by p.m. examinations — The facts obtained by the latter are still confessedly insufficient to render clear many of the points which have first been examined — but it appears to us that the gaps thus left in the Pathology of Stricture can never be filled up by the imperfect results of exploration. That this has been in some measure attempted by French Surgeons cannot be doubted & there are several species of stricture described by authors which have no other foundation than the evidence furnished by the plastic bougie.

This Refinement of Diagnosis which was introduced as an aid to the use of caustic has already begun to share in its downfall & it is not unreasonable to expect that its complete abandonment in the French treatment of Stricture will lead to a corresponding simplification in its Pathology —

the value of the Plastic diagnosis - & the estimation in which it is held in France will be again examined after completing the sketches of treatment which we now hasten to commence -

M. Civiale -

In the early part of his practice M. Civiale became aware of the imperfections of the plastic bougie of the camp. at that time generally employed in diagnosis - and substituted the soft conical wax bougies which he still recommends - In diagnosing stricture he first passes into the urethra a silver catheter of medium size - If this be obstructed he introduces a conical bougie which having passed the stricture is retained in the urethra for several minutes in order that a mould of the stricture may be formed on its soft substance -

M. C. conceives the decided advantages of this method of diagnosis especially in advanced strictures and in those situated deep in the urethra - but he considers it an indispensable aid both to the diagnosis & the progress of treatment.

In the treatment by Dilatation M. C. employs the same instruments - the soft wax conical bougies - & from this fact may be deduced one of his greatest characteristics in practice - the gentleness of his mode of dilatation - In passing a bougie he uses an extreme amount of care - producing no pain - seldom more than a feeling of gentle pressure - He considers that one of the most important points in treatment - is to

avoid over distension of the stricture part.— In ordinary cases M. C— introduces a bougie (gradually increasing the size) daily at the morning visit and allows it to remain from a few minutes to half an hour.— The time varying according to circumstances.

The cure he does not consider complete — till the normal state of the urethral walls has been completely recovered. When much induration exists. The treatment is continued long after the disappearance of urinary symptoms.

× In advanced strictures whether at the bulbous or spongy portion, M.C. as far as practicable makes use of the same method but in many cases where the canal is much retracted, and admits with difficulty only the smallest bougies he commences the treatment by the "mode à demeure" or permanent dilatation. This mode of practice he considers especially urgent when there is partial retention of urine or tendency to complete retention — when there is catarrh of the bladder — or finally when it is an object to relieve the suffering caused by long continued & violent expulsive efforts — He has found that in a large proportion of such cases the "mode à demeure" produces instantaneous effects — relieves pain produced by the involuntary efforts to expel the urine. Obviates the local & constitutional effects of partial retention & diminishes or even checks the rapid constitution.

With all these advantages M. Civiale reprobates the employment of the "Sonde à demeure" & considers it as only indicated except to relieve urgent symptoms at the commencement

of treatment – When the urethral irritation has been subdued and the stricture admits a moderately sized bougie he has always recourse to the temporary dilatation by which the treatment is subsequently conducted –

There are however many instances in which the "stricture in demeure" becomes intolerable to the patient & in which even the occasional & gentle passing of a bougie is resented & increases the tendency to Retention – It is with reference to such cases that Mr. Civiale remarks – "There is not perhaps "in the practice of Surgery a point which presents more embarrass- "-ment & uncertainty – On the one hand the patient finds himself "in a situation the most precarious & in dread of having added "to his existing miseries the tortures of Urinary Retention – On "the other hand the resources of art – if he wishes to attack di- "rectly the evil – are difficult of application – uncertain dan- "-gerous and sometimes impossible – They may even contribute "to provoke the accidents which we wish to ward off – xx Lastly "the indirect means at our disposal act with slowness & "often remain without result – Yet it is to them that we "must have recourse."

In such extreme cases he considers attempts at dila- tation often contraindicated from their tendency to aggravate the irritability of the stricture & indeed to produce complete Retention of Urine which is more than often to be avoided –

When this complication does supervene he indicates ex-

- treme care and caution in the use of the catheter. from the fact that though necessary it causes additional irritation & aids in maintaining the state of retention - The indication of treatment is thus to diminish local irritability and obviate the necessity of catheterism with the double view of arresting the constitutional irritation which so often proves fatal & of commencing the progressive treatment by bougies - In addition to the usual general & local remedies there is a peculiar method of treatment on which M. Civiale appears to place great reliance - namely the sedative & antispasmodic influence of pressure on the anterior part of the stricture - by means of a soft bougie passed into the urethra - The practical results which M. C. has thus obtained have sometimes been such as to excite his surprise & it is to his knowledge of this method that he ascribes his never having been compelled to perform puncture of the bladder -

† When such an attack does not terminate fatally - & careful general treatment has rescued the patient from immediate danger - it does not always happen that the case proceeds to a satisfactory termination - The inflamed but contractile walls of the urethra are often capable of being dilated to but a small part of their normal diameter and the attempts to exceed this by the introduction of larger bougies are resented by the stricture & if persisted in may prove dangerous to life -

At a late period (both before his days inciting urethrotomy) M. Civiale

considered such cases to be incurable by Surgical means.
& in the foll: passage he describes this form of stricture
& the palliative means best adapted for its treatment.
"In these grave cases the means to be put in practice
"must necessarily vary much - If a large extent of the canal
"be contracted - indurated - tendinous - even although a skil
"ful hand be able to introduce a small sound we must
not reckon on a cure whatever method be had recourse to.
Dilatation - Incision - Cauterization. I have seen all
these modes of treatment fail - even when prudently conducted
& long continued - The patient must retain a "mode à demeure"
If he withdraw it even for a few hours - so great is the
tendency to contraction that he will have often difficulty
in reintroducing it "It is not necessary always that the
instrument be passed into the bladder - Many patients
can urinate freely when the eyes of the sound are so fur-
ther than the membranous portion - Sounds of moderate
size shd be employed as they prove less fatiguing - than
those of large size - which in such cases do not possess
any advantage - If the stricture be at the moveable part
of the urethra one may substitute for the sound a bougie
which may be withdrawn & replaced at each period of mic-
turition - By such means life may be preserved for years -
& of this I have seen several instances -

In such cases M. C. considers that the application of Caustic, especially if long continued increases the indurated & callous state of the urethral walls. That superficial scarifications are useless & sometimes produce the same effect as the caustic. & that within a few years he considered deep incisions from the danger which attended them inapplicable when the stricture was situated beyond the neck of the bladder.

Towards the end of 1849 M. C. published a Memoir on urethrotomy in which he ascribes to M. Reybard of Lyons the merit of having drawn his attention to the value of deep incisions. In this work his ideas as to the utility of superficial incisions remain unchanged but both his own experience & that of M. Reybard appear to have convinced him that the method of deep & extensive incisions will ultimately become the established practice in the cure of indurated Stricture. He appears to have relinquished the idea of the danger attendant on such operations and does not scruple to advocate the complete division of the obstructed part both in its length and in its thickness. In one case mentioned in the memoir he practised an incision four inches in length & of proportionate depth without bad results.

In this work he gives the statistics of twenty two cases of non dilatable stricture treated by them at the Hôtel Dieu in which he had performed this operation during the three previous years.

In 19 Cures.

2 Improvement

1 Death.

In a clinical lecture delivered Jan.y 4th 1831. at the Hospital Necker. M. C. mentioned that his opinions remained unchanged as to the ultimate destiny of ~~cervical~~ the operation by profound incision. He had then performed in 30 cases with most favorable results.

M. C. never employs scarification. His use of caustic is exceedingly limited. only in very early strictures when the materies morbi can be diagnosed. He never employs it at the bulb. nor in the treatment of advanced strictures. He have always seen that he uses the "mode à demeure" only in this special cases.

M. Leroy d'Etiolles.

The practice of M. Leroy differs essentially from that of M. Civiale He proposes no general or uniform treatment of stricture applicable to all cases. but anticipates success in treatment more from the employment of a variety of means & a suitable combination thereof. Considering the great difference which exists in the situation. the degree. and the disposition of strictures he holds that a general method of treatment is not desirable. & that it is a more rational mode of procedure to attempt the cure of each species & variety of stricture by methods specially indicated by the existing peculiarities. He is an advocate of various forms of dilatation. cauterization &c. He considers the utility of each of these modes of treatment to be limited to special varieties of strictures & that a correct diagnosis is essential to successful treatment.

The instruments which he considers most useful for this purpose are "bougies a boule" cylindrical bougies terminating by a spherical or lenticular extremity - & of different sizes - By them he obtains the length of the structure - the distance of its anterior & posterior extremities from the meatus. He makes frequent use of the filiform bougie but bears testimony to its insufficiency if not used in combination with the other methods -

In addition to the ideas of extent character length &c. M. Leroy considers the importance of acquiring a knowledge of the pathological nature of the structure. This he often considers to be possible, even at the commencement of treatment - Cavernous structures are most surely diagnosed by the "bougie a boule" which although it passes into the bladder with ease cannot be withdrawn without dilatation the obstruction - In such cases the appropriate treatment (incision or excision) may be at once applied.

M. Leroy however confesses that it is very generally in the course of treatment that the pathological nature is revealed - & chiefly by the manner in which it yields to, or resists the means employed. When the diagnosis cannot be established at the first examination M. Leroy commences treatment by temporary & intermittent dilatation as being the safest & most general method. If this fail he has recourse in succession to more dangerous methods - Permanent Dilatation which may be done as rapid - Cauterization - Incision - Excision —

The Temporary Dilatation of M. Leroy differs in many respects from that of M. Civiale. I even in its simplest form approximates more to the mechanical dilatation by the order à demeure-

On the first day of treatment a bougie which passes with ease is left for a quarter of an hour in the urethra-

On the second day the same bougie is left for a similar period-

On the third day- the bougie is again introduced and after remaining for a quarter of an hour is replaced by one slightly larger which is allowed to remain from a quarter to half an hour-

This process is continued till dilatation is complete. The only modification being that in the progress of treatment the smaller bougies are gradually omitted & there only of the preceding day employed preparatory to the introduction of a fresh instrument.

In ordinary cases M. L. augments the bougie daily by half a millimetre. which makes the treatment last from 20 days. He makes it a rule never to employ force in introducing the bougie & never to pass at once to a superior number without having passed first introduced at least one of the bougies which had passed the day previously- When the dilatation is half completed he employs bougies with a fixed curve to the termination of the treatment.

In many cases M. Leroy has found this mode of dilatation capable of performing complete cures. He mentions cases which have been without relapse for fifteen years-

Permanent Dilatation.

When a structure does not yield completely to intermittent Dilatation by bougies or when at a certain point it resists their employment Dr. L. employs Permanent Dilatation of which he proposes two forms. The slow & the rapid. Of these he employs the latter much more frequently which is both more convenient & more dangerous.

In the Permanent Rapid Dilatation a bougie of sufficient size to fill the canal is allowed to remain in the urethra for 24 hours. The effect which this produces is to render the structure soft & yielding. so as to allow the gradual introduction of larger bougies which are changed every eight or ten hours. In five days the urethra is generally restored to its normal diameter. but from the strong tendency to contraction the cure must be followed up at least a week by the use of temporary dilatation. In many cases this contraction takes place so rapidly that the process must be repeatedly performed in order to ensure a permanent cure.

The experience of Dr Levy on this point is very valuable & he has narrated minutely a series of cases which appear to indicate that rapid dilatation is much less liable to objection than the usual "mode à demeure." The treatment is concluded in a few days a period which scarcely affords time for the development of the bad results of the latter which often lasts for months & seldom less than thirty days. The subsequent contraction which takes place when on the fifth or sixth day the "mode"

is permanently withdrawn is contrasted by temporary dilatation commencing always with a smaller size than that of the bougie which has been withdrawn. I from some cases incidentally mentioned by M. Leroy it would appear that the immediate contraction induced after the employment of this method is often not so obstinate as is generally believed & is of a nature that yields readily to the use of simple bougies.

M. Leroy seldom employs the slow permanent dilatation (or ordinary "mode à demeure") even when the other has failed. In a few cases however he has succeeded in establishing a cure but in general he prefers to repeat the continued rapid dilatation & to alternate it with temporary dilatation.

There are two complications of strictures in which he recommends the mode à demeure & in which he considers it to be incontestably useful. 1st When hypertrophy & congestion of the prostate coexists with stricture & produces partial or complete retention. he considers the pressure of the "conde" highly advantageous in such cases. 2nd When lithotripsy is practised he recommends the continued use of the "conde" subsequent to the operation; as it prevents the arrest of debris & small calculi behind the stricture.

Cauterisation

M. Leroy employs caustic in two forms of stricture

1st When dilatation has failed.

2nd In cases of recurrent strictures with or without retention of urine.

The opinion which he holds as to the action of caustic

is not apparently very decided. He appears to think that a slight loss of substance may be produced by even a slight application. while at the same time he reprobates the prolonged employment of this method as exceeding the bounds necessary for procuring the resolutive effect. The only one which is useful in the ailment.

In advanced structures at the spongy part he seldom cauterizes agreeing with M. Civiale that nothing has a greater tendency to render the callous stricture of this part of the urethra more callous & incurable. We have also seen that M. Civiale also recommends the use of caustic occasionally when the spongy structures are in their first stage. This practice M. Leroy appears to adopt by a series of cases that caustic is hurtful in all structures of the spongy portion & even in the early stage in abscess & hardness the fibrous transformation.

The cases in which he has succeeded after the failure of dilatation have occurred almost exclusively in the deeper seated parts of the urethra. The caustic ought to be applied carefully from behind forwards & in a few days dilatation by bougies commenced. If the urethra continue the cauterization ought to be reapplied until it has so modified the parts sufficiently to render dilatation effectual

In the 2nd class of cases there is little choice of treatment dilatation cannot be applied & M. L prefers cauterization from before backwards. to forced catheterism or puncture of the urethra. He appears however to have recourse to this operation unwillingly especially in strictures at the spongy part of the urethra - as his experience has

proved that although the cauterization may produce immediate benefit it generally tends to render the stricture more callous & indurated.

In cauterizing from before backward his intention is evidently to produce loss of substance - In some of his published cases he appears to have kept the caustic for ten minutes applied against the stricture. In one occasion he made use of Vienna paste -

Scarification & Incision -

Mr L. does not draw the distinction between this method that we have seen made by M. Ciniale. He has employed & recommends both in cases which resist other means - He has never advocated deep incisions; his instrument being constructed so as to incise only those parts which project into the interior of the urethra. When he can detect the existence of a braille or other shaped stricture he either ruptures it by the bougie a boule or by one of his incising instruments - Subsequently to the operation he prevents inflammation by slight application of caustic, or by dilatation -

He has also employed incision in strictures of the indurated type - but confesses that he has succeeded only in some cases -

Resection -

When all the preceding methods have failed Mr L. recommends resection by instruments acting within the urethra - The results which he has obtained are however very slight & he does not appear even to have established a complete cure - In many cases he has failed even in alleviating the symptoms - & in his most successful cases a long protracted treatment has been necessary -

Mr L at one point attempts to cure indurated structure by what he has named an excoriating instrument. This he has however abandoned having found that its action did not limit to the diseased parts.

M. Amussat.

M. A. considers the plastic mode of diagnosis to be imperfect more especially in structures during their early stage & that the hidden or valvular can only be detected as in the dead subject by instruments passing from before backwards. He has invented an instrument constructed on the principle of the "bougie à boule" but pretending to much greater accuracy inasmuch as it not only indicates the diameter of the posterior orifice but even the extent of transverse development which commencing structures have acquired. He does not entirely renounce the plastic mode of diagnosis but employs it to indicate the form & situation of the anterior orifice of the structure.

M. Amussat describes two modes of treating structure 1st The Palliative - consisting in the dilatation of the canal by mechanical means sounds. bougies. injections & 2nd The Curative - having for its end the restoration of the diameter of the urethra by destruction & removal of the structure - Cauterization Incision &c

The first of these M. A employs only for the relief of existing symptoms and as preparatory or adjuvant to the second. He considers that the treatment by dilatation however carefully conducted is generally incapable of performing a complete cure. that bougies & sounds acting

by simple compression on the vascular and cellular[illegible] of the urethra. Though they may flatten and temporarily distend them can never cause their entire disappearance.

Of the Curative methods Mr. Amussat in the early part of his practice employed only cauterization. But having found this method to be often inadequate as well as dangerous he was led to search for a more perfect mode of treatment.

In 1826 he read before the Academy of Medicine a description of a new method of cure by incision of the urethra & presented his first dilatator. This instrument had many imperfections which Mr. A. acknowledged in his memoir & he soon after substituted another which he deemed complete constructed on the principle of his explanatory instrument. It was of large size when the point could only be used after by a combination of caustic & forceps the stricture had been temporarily dilated. Mr. Amussat has since introduced a third instrument uniting the advantages of the two former. He employs it alone or combined with cauterization and this combination he considers to be the most effectual in establishing cures. He has in this manner obtained success after the failure of cauterization - & although he allows that it does not in all cases cure completely he has found relapses to be comparatively rare and infinitely less frequent than after the treatment by dilatation or caustic.

Even in cases curable by cauterization he proposes to employ incision & thus reduce that method to the level of dilatation making both auxiliary & secondary to incision.

M. P. has obtained many cures by scarification alone but is far from excluding the other two methods & considers the combination of all three to be the most effectual treatment - He commences the treatment by temporary or permanent dilatation - incises - cauterizes - & when the eschar has separated repeats the incision & cauterization.

Forced Injections

M. Amussat as is well known has introduced the practice of employing forced injections - with to relieve retention & occasionally to assist in the earlier part of the treatment by dilatation. This method is indicated in the writings of some of the earlier pathologists & more recently M. Bourn has claimed the priority of invention. but at the present day & by the present race of French surgeons it is universally named the method of M. Amussat. M. A. considers Retention of urine to be most frequently caused by a collection of mucous particles behind the stricture & believes the forced injections to be the most rational & least irritating means of removing these - Heat sometimes assists & generally assists and facilitates the employment of rigid bougies.

"When" says M. Pelat "M. Amussat has failed in introducing a bougie of small size he employs for several hours forced injections as a means of dilatation - When this has produced some effect he repeats his examination of the stricture using a straight silver sound about half a line in thickness. By this means he acquires information of the existence of a false passage &c &c. and after having by the use of this instrument for a short period become acquainted with the locality he with ease & seldom fails to introduce a small sized bougie

or sound."

This method may almost be considered as a mode of dilatation from before backwards & it appears to be judged by contemporary writers as a more gentle but less effectual mode than that commonly in use.

M. Perreve.

The mode of diagnosis recommended by M. Perreve is of a complicated nature & cannot be clearly explained without entering into considerable length. He employs three instruments. the sonde explorateur of Ducamp. the conical gum elastic bougie & the olive ended. Each of these assists in rendering the other method less liable to error & in forming a comparatively accurate diagnosis.

The mode of treatment which M. Perreve has adopted for all species & varieties of stricture is dilatation from within outwards. The instruments which he has invented for this purpose are introduced first through the stricture. & excentric dilatation is performed by means of mechanical arrangements which increase the diameter of the part situated within the stricture. By this method he believes that all the ordinary dangers of dilatation are avoided that the dilatation acting from within outwards & perpendicular to the walls of the urethra is incomparably more efficacious and at the same time less inconvenient than the dilatation by bougies. which in their introduction always excite a more or less injurious pressure on the anterior part of the stricture.

The temporary or intermittent dilatation he characterizes

as being by no means free of danger - inconvenient from the duration of treatment & affording no certainty of a permanent cure.

The Permanent dilatation he considers to have as many imperfections & dangers that it ought to be altogether abandoned. He enters at length into its dangers & characteristics & as a mode of treatment truly incendiary.

The objects to Cauterization on ground which has not yet been alluded to but which is also urged by M. Civiale & others - that the action of caustic cannot be limited to the diseased & contracted parts & in addition to the effects which it may thus produce he considers it to be little if at all more potent than dilatation to prevent relapse - & in many cases to require the continuation of treatment for months or years.

On Scarification the P.t remarks are very brief. He regards it as a method of treatment which none but a few rash surgeons resort to practice and he prophesies that it can never receive the sanction of the Medical profession. From some of his remarks it would appear that he considers the deeper incisions to be of very questionable importance. "If instead of simply dividing the structure this method had for its object a destruction of substance it might be taken into consideration."

The method of M. Perreve involves a principle which we have not yet met with the superiority (both as regards freedom from danger & efficacy) of dilation acting from within outwards. This depends says M. Perreve partly on the direction of the dilating force - part

on the greater extent to which the dilatation may be carried - & its freedom from danger as to the accidents more or less formidable to which the ordinary dilatation is exposed - M. Perrin considers that dilatation by bougies cannot be accomplished without exposing the stricture to considerable violence from before backwards -

By this new dilatation M.P. has ever found that dilatation can be accomplished in a space of time which if attempted by the ordinary bougies would almost infallibly lead to disastrous results -

In the first application the stricture is dilated to an extent of at least 2½ lines - In a few days a second application of the instrument, and subsequently at short intervals a third or fourth by which the treatment may be considered as terminated -

To prevent relapse a large bougie is introduced once every 14 or 15 days during six months subsequent to the use of the dilatator after which the interval may be prolonged & the instrument employed once in two three or six months - When the patient has been treated by cauterization great care must be exercised and the urethra examined every two or at most three months -

Freedom from relapse is one of the advantages which M.P. claims for his method of treatment & to procure this result with certainty he proposes a rule for the subsequent treatment which we shall transcribe in his own words -

"The patient may choose between two modes of after treatment to prevent relapse - The first consists in confiding to a

surgeon or other qualified person the exclusive care of passing into the urethra at intervals indicated above (3.6th lb) the largest sized bougie (illegible) which has been employed after the dilatation. The second consists in the introduction by the patient of the bougies 11 & 12. to ascertain whether the canal maintains its proper size. If it happen that N.o 12 becomes obstructed in the urethra or enters with difficulty the patient must by the use of my large dilatator enlarge the canal to the diameter of 3½ lines & subsequently proceed as before, examining the urethra every few months until another relapse appears when the dilatator must be again had recourse to. ×× He adds "the canal can never then have a less diameter than 3½ lines. It is manifest that relapses are impossible. & that my system of instruments fills up the lacune great & immense which has hitherto existed in the surgery of the Urinary passages. & which was the despair of Surgeons & of patients.

M. P. states that he has practised this treatment with success in nearly 200 cases (1847) without a single fatal result.

(illegible)

M. Segalas.

M. S. enumerates several modes of diagnosis useful in certain circumstances - among these - the plastic bougie method speculum but he appears to have most confidence in an instrument which

he has named the metroscyptic stylet - identical in principle with the knife.

The Intermittent Dilatation - he characterizes as very slight in its effects even when the bougie is retained for several hours - & to be attended sometimes with danger from the fact that the bougie must be introduced often - by the patient or other unqualified persons

He considers it applicable only when the patient cannot abandon his ordinary occupation to submit to treatment - "The slowness" he remarks "of the treatment by dilatation - the precautions which it exacts. the suffering which accompanies it - & above all its insufficiency to produce a radical cure have led to a search for other methods of combating Organic Stricture -

Scarification & Incision he regards to be dangerous remedies except at the fossa navicularis. where the latter is the most effectual remedy. In almost all other circumstances & forms of stricture he recommends Cauterization from within outwards - The superiority of this method he considers to lie not only in the cure being durable - but in the treatment being less tedious - less painful and much less liable to induce accidents. He opposes that retention of urine & hemorrhage. which he confesses to occur occasionally after the employment of caustic are neither of such a serious nature nor so common as is generally believed -

M. Dupuytren.

The treatment which M. D employs is chiefly <u>Escarification</u> with the view of promoting the absorption of the indurated tissue which more or less characterizes all forms of this disease. The instrument which he employs acts from before backwards and as it is necessary that it be first introduced beyond the stricture this must be partially dilated previous to the operation. When the canal has acquired a sufficient diameter & has lost the sensibility which generally exists at the commencement of treatment the Escarificator is applied against the internal surface of the stricture. After the operation a gum elastic or metallic bougie is introduced which after remaining forty eight hours (being withdrawn only during micturition) is replaced by another of superior size. This is withdrawn on the fourth day. and a succession of bougies employed in the same manner till the eighth or ninth day by which time complete dilatation is generally accomplished. The cure is evidently regarded by M. D. as being complete and of a permanent nature. In 1839. when he first published his views in the Bulletin: Therapeut: he had put the method in practice for several years & he states in the paper that "the results merit the serious attention of surgeons." In 1847. In his work on Organic stricture he appears to be still more sanguine in his expectations "the results" he remarks "which Escarification has furnished me are so favorable. the inconveniences which accompany it so slight and the dangers with my instruments so insignificant that in publishing my experience I shall perhaps have rendered a service

to Science.

In his first paper no mention is made of Incision but between that period & 1847. M. D.o attention appears to have been drawn to the subject and he has proposed a new incising instrument for the purpose of dividing old & indurated strictures -

Although he has adopted Incision properly so called. He has not like M. Civiale & M. Ruffard abandoned Scarification - but still recommends it in the great majority of cases - It is only when it is impracticable that he has recourse to incision - The foll: passage contains a brief synopsis of the views which he advocates on this subject.

" From all that we have said in the preceding article we must confess that Scarification & Incision are the means most efficacious to destroy Organic Strictures & complete occlusion of the urethra - The first of these operations is applicable in cases where the obliteration is superficial - when there is little induration when there is sufficient dilatability to admit the heat of the cranctome, in irritable patients - & in those who are in urgent haste to be cured - We have recourse on the contrary to urethrotomy in callous strictures which it is necessary to divide at their base (ante-post) when we cannot dilate it - in patients of little sensibility - in cases where there is an urgent necessity of giving issue to the urine - or when in virtue of unfavorable circumstances the treatment must be short & lastly to form a new canal when the urethra has been occluded by the contraction of cicatrices -

The dangers of incision M. D. confesses - but he holds incision from before backwards to be the best method of relieving retention of urine in impermeable stictures - The false passages which may thus be occasioned he considers to be absolutely free of danger. & that when they do take place they do not prevent the cure. "It must not however" he adds" he concluded that we authorize false manœuvres for from it - We avoid them as often as it is in our power" Among the other inconveniences of this method he mentions the almost inevitable occurrence of rigors & symptoms of nervous disturbance which occur more or less frequently after the operation, but he has found that these although they may at first appear of a serious nature seldom fail to pass off under some mild treatment - Notwithstanding this objection to incision from before backwards he considers it to be less dangerous than any other method & the only one which can with certainty produce cure "Dilatation" he remarks. "Cauterization & scarification can produce no improvement in such cases of occlusion of the urethra -

M. D. appears to have little confidence in the efficacy of the various modes of dilatation - although he does not absolutely deny that they can occasionally effect a cure - "When the stricture is very indurated & extensive the effects of Dilatation are very problematical - & if some improvement be attained it is always after a long duration of treatment & sometimes there is complete failure -

M. D. is no upholder of cauterization. He considers it whether simple or combined with the use of bougies to be little more effectual & greatly more dangerous than simple dilatation and to be on these grounds inapplicable as a general mode of treatment. He mentions only one class of stricture in which its employment is indicated in these cases namely - where after scarification has been practised & the cure almost complete, there remains a granular & irregular state of the mucous or the former seat of stricture.

M. D. considers a very minute diagnosis unnecessary with a view to scarification - as strictures are never treated simultaneously - but in succession from before backwards. He occasionally employs the plastic method & has introduced the modification of moulding the plastic materials at the extremity of rigid instruments. He considers this preferable to the waxy bougie of M. Civiale several of whose opinions he has adopted.

M. Mercier.

M. Mercier puts in usage only two methods in the treatment of stricture - Dilatation & Incision. & he employs the second of these only when the first has been tried & has furnished incomplete results. His mode of dilatation is peculiar & more resembles a combination of several of the ordinary forms. When the stricture has been examined M. Mercier commences his treatment by introducing a conical gum elastic bougie, broad at the base

last tapering to a comparatively slender point - This he presses forwards against the stricture till all the dilatation that can be produced has been effected & he appears to consider the sensations of the patient a better index to this than the resistance opposed by the stricture - The instrument thus introduced into the urethra is kept in application against the stricture for 15 or 20 minutes - On the following day the same instrument is introduced & the dilatation pushed as far as possible - Frequently the conical bougie may be replaced by another of larger size and occasionally several may be introduced successively - In favorable cases the treatment is concluded in a few days & the only after precaution is the use of a full sized bougie every 10, 20, or 30 days - according to the contractility of the stricture - When large bougies can be readily introduced he prefers metallic instruments with a fixed curve -

When the stricture is of a more intractable nature & will not allow the dilatation to pass beyond a point less than the normal diameter M. Mercier retains in the urethra for 24 hours the largest bougie which can be introduced & he has often found that this procedure, although not free from danger & often inapplicable in irritable strictures has the effect of softening the induration of the parts & rendering them comparatively dilatable - He wd thus appear to consider the permanent dilatation effected in cases where the temporary use of bougies had failed & capable of enlarging the canal if not always to its normal diameter - at least to a nearer approximation to this than had been obtained by the other method - but he

qualifies this by subsequently stating that in the great majority of cases experience has assured him that this excess of dilatation is of a lasting nature & that the real limit of dilatability in such forms of stricture is the degree of dilatation attained by the temporary bougies.

In such cases when complete dilatation has not been obtained in those cases also which are of an unusually irritable nature M. R. recommends incision - not however in the proposed manner advocated by M. Civiale - but now resembling the superficial incisions of other writers.

Before employing his instrument he diagnosis the extent of the disease chiefly by the "bougies à boule" but partly also by the plastic method - He does not however to consider accurate diagnosis essential - The instrument which he employs is constructed with four blades & he considers that it can seldom do injury to the healthy tissues as the stricture generally involves the whole circumference of the urethra -

By incision he does not propose to cure radically - only in exceptional cases. & he inculcates the necessity of prolonged after dilatations by bougies to which the tendency to relapse - which sooner or later appears sooner or more distant periods than after treatment by simple dilatation

M. Sallemand –

M. L. employs the plastic bougie in diagnosis.

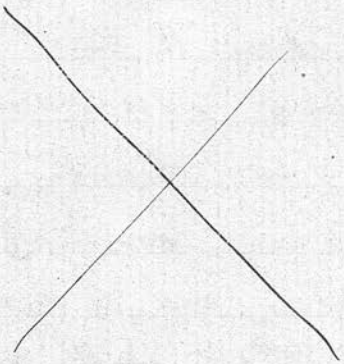
He has no general method of treatment & remarks "That all the means imagined for the cure of stricture may find an application." He considers dilatation applicable to a large majority of cases. & the method which he recommends is the rapid permanent dilatation very closely resembling that of M. Leroy. He commences treatment by introducing a metallic bougie – / curved or straight / which after having remained in the urethra for 7 or 8 hours is replaced by a gum elastic catheter of a slightly larger size – In three or four hours this instrument is withdrawn and a third still larger introduced &c – The duration of treatment seldom exceeding ~~three~~ two days.

M. L. asserts that this method produces complete cure in many little developped strictures. but in advanced cases there is sooner or later a tendency to contraction – He submits such cases to a repetition of the dilating treatment which can generally be effected in one half the former time 24 hours. He advises the patient to have recourse to dilatation whenever the stricture reappears. & his experience has convinced him, that such attacks become more & more distant –

M. L appears to have occasionally practised scarification in advanced strictures as an aid to dilatation. He considers incision to be the most appropriate treatment at the meatus. & from the full extract we have appear that he has made use of external incision in a peculiar form of stricture. "Lastly there are obstacles to the course of the urine which are situated external to the urethra. Thus are the small tumours developped

in the spongy tissue & even still more superficially. By dilatation they may be prevented from projecting into the canal. but they return with equal promptitude to their former position - caustic will have no effect on the internal ramifications & not reach them. Happily external incision of these tumours causes them to disappear in a manner equally prompt & sure - The projection which they form through the spongy tissue permits them to be easily felt through the integument - above all when the urethra is distended by a large sound. It is necessary to incise freely the integument & the subjacent tissue. & to divide the tumour in its whole extent. following the direction of the sound - without dread of penetrating the mucous membrane or the cavity of the urethra. The cure will not be ever instant attended. The tumour thus divided suppurates becomes absorbed & the incision heals even with the aid of a few applications of caustic -

Cauterisation



M. Begin.

In an article on stricture published in the Dictionnaire de Medecine Ducamp's mode of diagnosis by prepared bougies is recommended in preference to the bougie a boule which is reserved for special cases. Its imperfections are in some degree recognized.

The mode of treatment recommended is primarily dilatation & when this fails cauterization which is regarded as especially applicable in difficult & aggravated cases.

The dilatation is conducted by bougies of cat. gut or caoutchouc when the stricture is very small but in general by the ordinary gum elastic instruments except in very irritable strictures. When the soft wax bougies are preferable. These should be retained in the urethra at the commencement of treatment 8 or 10 minutes twice or thrice daily. gradually increasing the length of the periods till the patient can support them for three hours at each application.

These limits ought not to be surpassed and on all possible occasions the prolonged dilatation by the sonde a demeure ought to be resorted.

The treatment by Cauterization is considered to be of great value and with all its inconveniences ought to be regarded as applicable to many forms of stricture. It is even recommended that dilatation should as far as possible be dispensed with & the reason assigned for this preference is that it renders patients less liable to those accidents which are usually ascribed to cauterization. The application of caustic from before backwards is regarded as a dangerous remedy. Three successful cases are recorded. but in all the treatment was long & persevering

The results of incision & scarification by the ordinary instruments are regarded as being comparatively favorable - but not of a very decided nature.

M. M. Senoir - Roche - Lyons -

The general mode of treatment recommended in the "nouveaux elements de Pathologie medico. Chirurgicale." (the work superintended by M. Senoir) is cauterization from within outwards & subsequent dilatation by bougies - Three or four applications of M. Vallemands instruments at intervals of a few days. until a moderately sized bougie can be passed when the treatment shd be terminated by dilatation - This is performed by "bougies à ventre") instruments with rounded cylindrical extremities which are allowed to remain each day in the urethra - 20 or 30 minutes. A radical cure is said to be obtained in less than a month - There is one species of stricture in which this mode of treatment is said to be insufficient viz strictures formed by one or more fibrous bridles consequent on a loss of substance in the canal. Against these incision by some kind of instrument is recommended in order to establish a complete cure - In all other forms of stricture the combination of caustic & bougies is to be preferred to simple dilatation which requires at least two & sometimes eight or nine months to perform a cure which in a great majority of cases is only temporary. It is confessed that this combination is not exempt from dangers. & that its success is not uniform - but its inconveniences are regarded as being less real & less numerous than those of (simple dilatation -

M. Velpeau –

M. V. never employs the plastic bougie in chronic cases & speaks strongly of the errors in practice which a too great confidence in it may induce.

For all practical purposes he appears to consider it sufficient to ascertain the situation & diameter of the stricture – by the ordinary gum elastic bougie – or catheter. When it is necessary to determine its length. the he considers the bougie à boule to be much less liable to fallacy. than either Vacamps or Civiales instruments.

M. V. in general conducts the treatment of stricture by dilatation He seldom allows the bougie to be withdrawn in less than half an hour and often retains it in the urethra for several hours – The interval between each application varies – Ordinarily he changes the bougie daily but when irritation supervenes he often suspends the treatment for several days. – He does not disapprove of rapid continued dilatation & considers it dangerous to be much exaggerated – The affections of the cord testicle &c which come on during the treatment he denominates exceptional or accidental. & he affirms that the greatest evil of dilatation is, that the cure is frequently only temporary –

In those cases which do not yield readily. M. V. employs cauterization to modify the affected parts & render them more dilatable

We have seen that M. Civiale employs caustic only at the commencement of treatment to render the subsequent use of bougies more rapidly effectual – M. Velpeau's method of combining cauterization & dilatation is different. He commences by dilating the stricture. In a few days he applies his first cauterization & follows it up by

a second interval of dilatation then a second cauterizations so as to the termination of the treatment. "The object of the former is to enlarge to dilate the effect of the caustic is to cure to reinduce the healthy quality of the tissues.

He appears however to have met with cases in which the above treatment was insufficient "If the urethra is contracted "in consequence of a wound or rupture or any loss of substance "whatever the cure is in general extremely difficult. I have seen "a multitude of cases belonging to this category. Dilatation. "Scarification. Cauterization cure at first as in these cases. "but if the urethra be left alone for three days the disease reappears "immediately on the removal of the dilating body. retractions com- "-mences and one may conceive the difficulty of curing radically "this form of stricture. It is in such cases only" he adds "that "the incision of Mr. Arnold or the excision of the cicatrix are indicated

1. On the Value of the plastic method of Diagnosis

M. Velpeau. — The "porte-empreinte" of Ducamp is a deceptive instrument which does not merit any confidence - & is fit for nothing but to serve the projects of charlatanism. When passed into the urethra the soft wax changes its form - equally under the tension of a fold of mucous membrane - a momentary compression - a spasmodic movement - as under the influence of a true stricture - and I have never been able to comprehend how practitioners of merit could with this sole guide have recourse to the nitrate of silver. How many urethras have been needlessly cauterized because the bougie of Ducamp withdrawn from the urethra has given rise to the idea of imaginary strictures - M. Bazin has been good reason for proscribing it - I consider it an instrument that ought be banished from Surgery

M. Perrève — The indications of the "sonde explonatrice" are always uncertain. always doubtful. & to cauterize on this evidence would be is to expose to injury the sound parts of the canal.

M. Dupuytren — The numerous trials to which I have submitted this method enable me to advance that it is indispensable to take two or three impressions before operating - I do not believe in the possibility of diagnosing the number of strictures when there are several & still less their form & situation.

M. Malgaigne — The sound of M. Amussat is well adapted for discovering commencing strictures - but for those which are narrow the bougie of Ducamp appears more sure. Without doubt it is pos

by engaging the sonde explorateur on the muscular portion - of a healthy urethra to obtain an imprint due to the natural shock at this part. or to a spasmodic stricture. But on the one hand this chance of error does not exist but at this part & on the other it may be corrected by the other means which Ducamp has recommended.

M. Mercier — M. Mercier considers the plastic instruments both of Ducamp & Civiale to be insufficient. "The bougie à boule" he adds "is a much more convenient & more sure.

M. Civiale — The inutility of the ordinary exploratory comes in a large number of cases. The pain which it induces invariably - the incorrectness of the casts which it furnishes - have led to the introduction of several other instruments. × × The instruments which I employ are soft wax bougies × × They do not deform the urethra & cause neither fatigue nor irritation - if in some rare occasions its results do not answer our expectations it produces no inconvenience to the patients.

M. Leroy. — The bougie of Ducamp is not as he thought an indispensable guide even for his mode of operating - Yet it is advantageous before employing a porte caustique to make an exploration with the bougie - taking care however not to place too much confidence in the corrections of his indications as to the length of the stricture. for the best & most exactly defined imprints are almost always the most incomplete & dangerous. - Many surgeons admirers of Ducamp have allowed themselves to be thus deceived

& have fallen into grave & unfortunate errors. for the effect of causing the healthy part of the urethra beyond the seat of the disease - is to transform into true, indurated, & often incurable strictures. those which were at first only valvular & over which a more rational treatment might have easily triumphed. x x In spite of its imperfections & inconveniences the bougie of Ducamp ought not to be entirely abandoned. It is applicable in some special cases.

Amussat — If the exploration be conducted with a round or ordinary bougie - even with the conic explorateur of Ducamp - one may in numerous cases penetrate as far as the bladder without encountering any obstacle & without furnishing any imprint of a stricture situated at some point in the urethra. (Mr. Amussat has introduced an instrument on the principle of the bougie à boule.) Although the conic explorateur is still much in use - it is often an imperfect guide to the surgeon in the treatment of stricture & may by misleading him as to the situation of the organ induce serious errors in practice. A true & correct imprint is with difficulty obtained in the straight part of the urethra and almost never at the bulb. the ordinary seat of stricture.

Lewis. — We cannot deny that exploration by the plastic bougie is sometimes little satisfactory —

II. On Dilatation -

1. On the curability of Stricture by Dilatation -

M. Civiale — If a large extent of the canal is constricted - indurated & if above all the surjacent tissues adhere forcibly to this species of ligamentous cord- even although a skilful hand may introduce a small sound- one must not reckon on a cure - whatever method be employed - dilatation - cauterization - incision - I have seen all these methods fail - even when conducted with prudence & long continued x x x The long - indurated callous strictures have so great a tendency to reproduction that their complete cure can almost never be obtained -

M. Leroy — In the great proportion of strictures dilatation suffices - & even when it does not cure it at least produces no aggravation of the disease x x Many strictures arrest at a certain point. all the forms of dilatation & yield to cauterization while others after the employment of both methods having acquired an almost normal diameter - remain stationary without tendency to reproduction & are only exasperated by perseverance in appropriate treatment x x Our aim is not merely to cure sometimes we must aim at curing always or at least as often as possible -

M. Civiale — Two methods of treatment have been put in usage to obtain the cure of stricture - The first which can only be considered palliative consists in the dilatation of the canal by the aid of mechanical means - This method has for its end the destruction of the stricture & —

The rapid & frequent insufficiency of the treatment by dilatation

have led surgeons to imagine methods of destroying the stricture by instruments introduced within the urethra.

M. Velpeau.

We may accept as an established rule - that every stricture which allows the passage of an instrument however fine - is curable by dilatation.

M. Velpeau

The objection which is really applicable to this mode of treatment is, that it exposes the patient to a relapse.

M. Malgaigne — Dilatation is the indispensable complement of all the other methods and as it is even when uncombined - efficacious in a great majority of cases. It is this which we would adopt as a general method reserving the others for extreme cases. By whatever method we treat this disease we must never promise a cure without relapse.

Lallemand — The length of the treatment by dilatation is manifest
Bégin incontestable. This disadvantage can only be lessened by so distributing the times of dilatation as to give the patient great part of the day for his usual occupations.

Its insufficiency is equally real in many cases. but it is not so exclusively characteristic of dilatation as the partisans of cauterization pretend. It is certain that there are some varieties of stricture which are susceptible of being radically cured by this method.

Roche / Sanson / Lenoir — The treatment by dilatation lasts two or three months & sometimes eight or nine. In the great majority of cases it is only palliative and ought not to be employed unless in stictures of recent date & of little extent. The slight elevation of the relief which it procures, the small number of cases in which it is rationally applicable have led surgeons to search for methods of destroying the tissues which compose the stricture & producing a true loss of substance.

M. Perreve — The extent thickness and consistence on the one hand. The pain suffered by the patient. The fear entertained by the surgeon of rupture & false passage. unite to render excessively slow the progress of intermittent dilatation. — Relapses are so common that few patients can be considered exempt from them.

M. Dupuytren — It is now well established that dilatation gives only uncertain & little durable results. Whatever be the instrument employed. whatever the time that it is kept on the urethra. In very hard & inveterated strictures if any a mitigation be obtained or it is only after a duration of treatment more or less prolonged — and sometimes we fail altogether.

M. Lallemand — In the immense majority of cases dilatation (the rapid permanent which he considers the best & least inconvenient) may succeed & even merits the preference when properly followed out. There are many little contractions with existing structures which do not reappear. At least I have seen many

which had not been reproduced eight or ten years after. When
the indications of a relapse appear dilatation shd again be
had recourse to. — In spite of the incontestable advantages of
dilatation there are cases when it ought to be replaced
by other methods.

Mr Segalas — The intermittent dilatation succeeds but its effects are
very gentle — I do not recommend it but in those cases
where the patient cannot relinquish his occupation during
the treatment — which is a condition if not indispensable
at least very useful in the permanent form of dilatation.
Besides one is often under the necessity of entrusting the
patient with his own treatment & I have seen many acci-
dents occur in this manner — This treatment is only palliative

Mr Ricord — Dilatation is the most generally applicable method
that of all which uncombined has the best success. and
is a very great number of cases the useful adjuvant of
other methods.

(2.) The Sonde à demeure - Its effects on the urethra - Its Circuit. The permanent has not the same efficacy as the temporary dilatation to restore the suppleness & elasticity of the canal hence the cures which it effects are less complete & in consequence less durable - The sole advantage inherent in the permanent dilatation is - that it is less troublesome to the surgeon who directs the treatment - But the convenience of the practitioner ought not to be taken into account if it condemns the patient to a long inaction exposes him to a crowd of accidents / which several are very grave submits him to a tedious treatment & procures only an uncertain & temporary cure - But such is the case with permanent dilatation. Nothing can justify its employment but an imperious and absolute necessity - x x almost always it induces inflammation of the urethral mucous membrane accompanied by a discharge sometimes copious enough to weaken the patient - The inflammation may be suppurative intense to produce local disorders. & even the development of abscesses - or what is fortunately rare gangrene -

After the full sized sounds can passed & the urine expelled with facility - the patient is cured or at least supposed to be so - but sometimes soon after the last sound has been withdrawn the jet of urine diminishes & the dysuria reappears - This is an established fact & too much neglected - If more sufficient importance attached to it - it would not fail to

suggest a more rational practice - and prevent the urethra from being
treated as a purely inert body - This phenomenon presents
nothing surprising. It is due to the reaction of the canal &c &c.

M. Leroy — By this procedure the bougies instead of being changed
every eight or ten hours are only changed once in four or
five days - The circumstances in which this operation
still employed in the large proprietary hospitals is preferable are not
very common - Certain indurated strictures which resist
the temporary, & permanent rapid dilatation become cured
often a prolonged use of the sonde a demeure - These are how-
ever few in number and success is best obtained even
in such cases by frequently repeating the permanent rapid
dilatation followed by the intermittent dilatation - The use
of the sonde à demeure to be durable must always be
followed up by the bougies otherwise the abrupt aban-
donment of treatment will be followed by retraction of the
tissues x x The prolonged sojourn of sonde is not without
its inconveniences - the least of which are catarrh of the
bladder - purulent discharge from the urethra &c - Sometimes
the pressure which they exert is followed by sloughing &c.

M. Amussat — Must be carefully followed out - however well directed
the treatment by dilatation may be - it lasts several
months several years - & the patients can almost never
regard themselves as completely cured - The contracted urethra
may it is true by the aid of dilating instruments be restored

to its natural diameter, but as soon as these are left off - the canal tends like all other excretory canals to return to its primitive state. ×× The discharge that is produced during the sojourn of these instruments in the canal is nothing more than the mucous secretion augmented by the presence of a foreign body - ×× The treatment by dilatation is often accompanied by local and sometimes general disorders. ×× When this fever and irritation appears the wound must be withdrawn - & bleeding from the arm, leeches &c employed Patients under treatment must carefully avoid exertion &c - otherwise they will be exposed to inflammation of the testicle an accident very common in those who do not take this precaution -

M. Velpeau — I cannot agree as to the dangers which accompany dilatation of the urethra & the pain and suffering which is said to occasion - Properly directed I have seldom seen it produce grave accidents - The mucous or blennorragic discharge which is sometimes occasions disappears almost constantly of itself after having lasted a few days. The fever preceded by rigors & followed by sweating - like the intermittent fevers which it sometimes produces has nothing alarming - The nervous movements - engagements of the cord & testicles are exceptional accidents - The reproach to which dilatation is really exposed is that it appears to relapse & requires the dilatation to be carried beyond the normal dimensions of the urethra

M. Lallemand — The method of dilatation has been reproached as being
of difficult application — sometimes impracticable — always pain-
Bégin — ful & procuring after a long treatment only doubtful &
palliative cures. These reproaches although they have
much truth have been exaggerated & the inconveniences in
question may be in a great number of cases lessened if not
entirely obviated — They were however perhaps merited in the
days of Ducamp when bougies a demeure were
almost constantly employed — irritating the urethra — the
prostate & the neck of the bladder & producing all the
accidents which may be the result of violent inflammation

M. Lenoir — An inconvenience attached to dilatation is that it is
not always practicable — In many individuals it
produces painful erections rendering the withdrawal of
the bougie necessary — induces febrile disturbance — urin-
ous infiltration — abscess &c — &c — These accidents are not as
common as some authors would pretend — & the fear of seeing
these supervene ought not to cause the proscription of this
curative method which in a certain number of cases may
be useful — When they do appear it is necessary to with-
draw the bougie and have recourse to energetic antiphlo-
gistic treatment.

M. Lallemand — The long sojourn of gum elastic sounds in the last
construction has inconveniences both with regard to the bladder
the prostate the spermatic organs & the urethra itself.

not only does the mucous membrane become inflamed & its follicles contract the habit[illegible] of an exaggerated secretion - The inflammation extends often to the spongy & subjacent tissue sometimes of an acute character tending rapidly to suppuration x x In traumatic strictures however the long continued presence of a wound is necessary - It is in such cases an inopportune but an unavoidable necessity -

M. Segalas. — To most patients the prolonged retention of a foreign body in the urethra is very difficult to support & fever is often the first fruits of these ~~practices~~ patience - In the best directed treatment we have to fear divers inflammatory accidents. violent attacks of urethritis catarrh of the bladder, chronic engorgement of the prostate &c &c -

M. Perrève. — The treatment by bougies à demeure is always very long - It is rare that the patients do not return after a year a eighteen months - & in this way many persons affected with stricture may respectably make the tour of the hospitals of Paris. Inflammation is the result of this mode of treatment - If this were always moderate & limited to the point of stricture we would have little to say against the bougie à demeure - But it is ~~not~~ not so - It often acquires great violence - develops itself in all the parts connected with the foreign body. in all the canal consequently and also sometimes in the bladder &c It may even proceed to such intensity that notwithstanding every care &

precaution gangrenous abscesses suppurative infiltration of urine enormous ulcers followed by urinary fistulæ or death.

Sonde à demeure (continued) Treatment in Urethral Fistulæ.

M. Leroy.— The conditions which it is essential to fulfil to obtain closure of the fistula are 1st to destroy the stricture which generally exists 2nd to prevent the urine from passing by the fistula

To accomplish this last object the best means is to fix a "sonde à demeure" in the urethra. Examples of cure thus obtained could be given by hundreds. Nevertheless there are patients who cannot be cured by this method. × × Not only does the sonde à demeure fail to cure some fistulas but often at a certain time it appears to prevent their closure. which nevertheless seem to take place almost immediately after the instrument has been permanently withdrawn. Whatever be the explanation of this the fact is undeniable. When the fistulas are not closed by the use of the sonde à demeure & when they persist after it has been withdrawn. the cure may still be accomplished by introducing an ordinary bougie at each time of micturition.

M. Civiale — The method most generally adopted the sonde à demeure is a permanent source of irritation which will suffice of itself to prevent the obliteration of the fistula. without considering that it does not answer the indications proposed — almost always in fact the urine filters through between the wound & the walls of the canal.

M. Amussat — The only indication of treatment is to prevent the egress of urine by the fistulous opening - For this the employment of sounds à demeure is the most rational means - & that which is most certainly followed by success - They must be kept up till the parietes have cicatrized & the canal of the stricture must subsequently be bathed to by means of scarification & cauterization - It is prudent to continue the use of the "sonde à demeure sometimes after the fistula have appeared cicatrized as the cicatrix is apt to give way unless this be attended to.

M. Velpeau — The treatment by the sonde à demeure is not always free of inconvenience - If it remains open in order to draw off the urine as it escapes by the meatus - the heat of the instrument sometimes produces suppuration of the bladder &c. If it is kept shut the small quantity of urinary fluid which almost always settles between it & the walls of the urethra - suffices in many cases to prevent the obliteration of the fistula - This is a fact completely demonstrated - It is better in consequence to sound the patient & teach him to sound himself - with a silver catheter at each time of micturition - A patient whom I had failed to cure by the sonde à demeure in 1830 at La Pitié was radically cured at the end of three days - when I caused his water to be drawn every four or six hours & the instrument immediately withdrawn -

M. Malgaigne — There are four methods of obliterating fistulas - In the 1st ordinary method - the most indication of treatment

to re-establish the course of the urine by the urethra - by the retention of a sonde à demeure - When the urine no longer passes by the fistula it has a tendency to cicatrize - but sometimes the urine passes between the wound & the canal & produces fresh irritation. This is prevented by leaving the instrument open in order that the urine may always have a free issue.

II. The sonde à demeure according to Dr Campo has the necessary of irritating the fistulous wound: acting, in its quality of a strange body like a pea in an issue. It acts only by removing the stricture the canal has a tendency to shut of itself. Even if it shd persist it is not necessary to employ the sonde à demeure it suffices to introduce a sound at each period of micturition - In support of this method many facts might be quoted which have been published as cases of spontaneous cure when the ordinary method has been unsuccessful.

In speaking of sutures and autoplasty in those forms of fistula which demand such operations he must guard against

He thinks that the frequent want of success is owing to the employment of the sound after the operation - & that it wd be preferable to withdraw it immediately after the suture.

M. Begin & Gallemard. } - Less importance is now ascribed than formerly to the use of sondes à demeure in the treatment of urethral fistulæ

It has been remarked among others M. Gallemard has insisted with reason on the fact that their presence excite

in the urethra a continued irritability and a permanent secretion of mucous which is opposed to the cicatrization of the abnormal openings — When by proper treatment the stricture has been destroyed & the canal restored to its natural state. It is generally the better treatment to cauterize when necessary then to leave the wounds permanently in the urethra.

M. Lenoir. It occasionally happens in spite of the employment of sondes à demeure the fistulous pursuit. This may depend on various causes. Sometimes the wound itself produces in the urethra an irritation which propagates itself to the fistulous canals & prevents them from cicatrizing — This may be diagnosed by the difficulty with which the instrument is supported by the patient — the redness of the external openings — the increase of suppuration when it is kept in the canal. It is necessary — simply to draw off the urine two or three times a day. & leave the wound only a few minutes in the urethra to give the cicatrix of the cauterized parts a proper extent.

M. Percure — When after the dilatation of the stricture (by M. P.'s method) the urine continues to pass by the fistula — it is necessary to have recourse to gum elastic sondes. In order to avoid the inflammatory accidents which result from the use of the sonde à demeure — we ought at first to attempt a cure by introducing them only during the periods of micturition. If during emission no part of the urine escapes through the fistula we may be assured of a speedy cure —

But if it does pass we must then have recourse to the ordinary demeure. keeping it continually open for the free passage of the urine - If the inflammation be moderate the fistula will cicatrize but not if it be sufficiently violent to produce abundant suppuration - In this case the pus escapes by the fistulous passage - macerates & infiltrates its walls - & renders cure impossible -

2. Injections - When the canal has been dilated to its normal size & the fistula still persists - it is indispensable to furnish to the urine a tube for its removal & to prevent its passage by the fistula - To attain this end there are two means - The ordinary demeure & the temporary canal - It is this last which I have adopted - The patient must be taught to evacuate his urine every three or four hours -

3. Bougies - The temporary use of bougies often suffices to cure the fistula - But this treatment to which Boutin seems to give the preference is not that which cures the best & the most frequently - A great number of fistulas only yield to the ordinary demeure. For the urine may filter between them & the walls of the canal. & By this On this account many allow them to remain always open - But, advised at a certain degree of dilatation as Dupuytren has well observed - they oppose the cicatrization of the internal orifice by keeping its edges separate. & a cure is only obtained by reducing to nothing by successively smaller or even by withdrawing them altogether

III. On the effects of Cauterization – (on the urethra)

M. Dupuytren – Cauterization even when combined with dilatation is in general only palliative × × Simple cauterization does not differ in its ultimate effects from dilatation but it is more painful & more dangerous – not only in its immediate effects but also in the secondary accidents which it may determine.

The least inconvenience of caustic is to produce no action on the stricture The danger to which it may give rise are – induration of the stricture & of the urethral mucous membrane – &c &c.

M. Percival – "Cauterization is surrounded by great pain & great danger. × × As an operative procedure it is vicious in principle and difficult in practice. It exposes the patient to accidents the most terrible & the disease reappears in a more intractable form. The cure by cauterization is worse than the disease". He regarded it as, in the first instance a cause of the destruction of healthy mucous membrane – of false routes – urinary abscess &c – & as producing the secondary effects – the almost invariable reproduction of the stricture of greater length & greater induration & often increased sensibility to the action of curative means.

"I," he adds, "in spite of all that I have adduced to objection &c he urged that cauterization has sometimes produced cures. I will join my voice with that of my illustrious teachers & reply "Cures in the days of

Abulteau Paré after the amputation of a limb by bleeding stumps was plunged into boiling pitch + at this period even Cures. disp have been adduced - But how many have succumbed meanwhile to a procedure so barbarous - × × Experience has proved that the treatment by caustic is rarely of less than three months duration + is often postponed for six months or more - I have seen several patients who have been 15 or 18 consecutive months under treatment

Effects — Nitrate of silver modifies the parts to which it is applied - does not destroy them - On this theory far from wishing to excite ulceration or destruction of tissues or in short cauterizing - the use of nitrate of silver shd be limited to simple "attouchements" - the considered as a special topic to modify the diseased parts & produce at the same time - modification of the engorgements - absorption of the matters effused into the meshes of the mucous or submucous membrane - and not the effects of a true caustic - Hence the caustic potash of M. Whately is a pernicious method which ought never to be put in practice.

M. Ricord — When a too tight cicatrix cannot be sufficiently enlarged when a retracted, aponeurosis, ligament, tendon or muscle can not be extended or kept in sufficient extension Do we employ caustic? We are not in such cases accustomed to cauterization! — The action of it wd be to produce a loss of substance which wd be replaced by a cicatrix

still more disposed to contraction. Even this cd. not be accomplished without inducing other evils. - inflammation in the neighbouring parts - prolonged suppuration which wd. cause the still further spread of the fibrous degeneration.
Ed. bin! so it is with strictures of the urethra -
I have seen a great number of patients who had been treated by cauterization and all affirmed that their stricture was aggravated - I have treated one who had been cauterized more than sixty times by Ducamp & others - and yet the stricture disappeared with much ease. That the dilatation could not be intermitted for a day. I another patient who had a tight stricture in the spongy urine - Cauterization practised by a most distinguished practitioner was followed by an attack of urethritis so intense & an aggravation so rapid of the stricture that he immediately put himself under my care -
M. Segalas (1825) I have never for my part observed the spontaneous reproduction of strictures which I have attacked in this manner. I have sometimes seen it is true, new strictures form in patients whom I had cauterized - but I have remarked that the seat of stricture was changed - When they reappeared at the same points they were produced by new hemorrhagies and were therefore altogether different from the first. I speak of those only which I had cauterized sufficiently those which could not be detected by the sound of dilatation

after the conclusion of treatment - I have seen incomplete cauterization followed by a return of the disease - A partial cure by caustic is scarcely more durable than that obtained by ~~caustic~~ dilatation × × The superiority of this method is not only in its producing a more durable cure - The treatment by cauterization has the advantage of being shorter than the dilatation less painful less alarming & much less exposed to dangers -

Civiale — M. C. employs caustic occasionally to favour the dilatation of commencing membranous strictures - but he considers it invariably contraindicated in indurated cases. whereon relates "If the applications of it are multiplied - the condition of the patient becomes rapidly aggravated & retention of urine rarely supervenes. The stricture instead of being destroyed as the exclusive partisans of cauterization pretend. increases in induration & extent. The internal surface of the urethra becomes hard rough & altered in appearance. The induration & thickening gain the submucous tissues - The urethra feels to the finger like a resisting cord & the disease terminates by becoming incurable. × × The relapses following the treatment by caustic are more long & more consistent than the original strictures. & - & - & —

Lisfranc } Leroy } — Cauterization ought never to be employed to stricture situated in the spongy part of the urethra - It exasperates them - renders them fibrous. engenders callous incurable - The cauterization practised with moderation

in the membranous region cures undilatable strictures. but if it were applied primitively and indistinctively to all. it would greatly aggravate them. When practised with moderation it produces the resolution of the indurated tissues. Cauterising beyond a certain measure it determines the fibrous transformation & aggravates the disease.

M. Amussat — When the caustic has been applied a few times without obtaining any amelioration it is imprudent to persevere for experience has proved that in such cases cauterising often far from remedying aggravates the evil.

It appears in fact that the oft repeated application of caustic renders the part callous & favours the formation of indurations very difficult to destroy. There is no practitioner of experience who has not found how much more difficult of cure these strictures are which have been often cauterised × × Relapses as we may easily conceive are common after the use of caustic × × This method is liable to the following accidents. 1. Retention of urine 2. Destruction of healthy tissues. 3. Hemorrhages. 4. False passages & in consequence urinary fistulæ.

M. Malgaigne — Dilatation is the only general method. to the modes of treatment ought to be reserved for exceptional cases. Whatever method we employ we can never promise a cure free of relapse.

M. Sanson & Bégin — Cauterisation destroys the morbid tissues

and at the same time modifies the irritability of that which remains — Hence the rapidity & great cruelty of the cures obtained by it. Hence also the superiority which it has incontestably acquired; but it does not always cause to cease. The chronic irritation of the tissues the tendency to pink contraction.

M. Lenoir. — The inconveniences (retention &c.) which accompany the use of Hunters armed bougie. have been known doubt on the cases which it sometimes incontestably produces. The punch surgeons above all have lost all confidence in this curative means & prefer dilatation. — but Ducamp has proved that the grave accidents to which it is liable are to be attributed not to the nature of the agent. but to the manner in which it is employed. — The well directed treatment by caustic is much preferable to simple dilatation. — × — But whatever be the nature of the stricture cauterization employed alone will never prevent relapse. & will even favor the formation of bridles & adhesions. It is not sufficient to have destroyed the obstacle. & put the seat of stricture on a level with the rest of the canal. It is necessary to obtain a cicatrix of the normal diameter of the urethra. This is obtained by the dilatation. only the bougie à ventre. ×

There is only one species of stricture refractory to the action of caustics. Those, namely. formed by old fibrous bridles consequent on loss of substance. — We have often employed the urethrotome with advantage in cases where the repeated can-

terizations had had no effect. ×

Experience has in these last years slightly limited the advantages recognized in cauterization - and at present this method of treatment is only employed as an adjuvant to dilatation - It is believed to act less by producing a loss of substance than by modifying the vitality of the contracted part. & it is principally with this end that it is employed M. Ricord — If we attempt to make cauterization a general method applicable to all cases - it w^d doubtless be more hurtful than useful but when employed with discernment & prudence & according to indications it becomes if not the only means of cure for a large number of strictures, at least a powerful adjuvant to dilatation — But if caustic be employed in all cases - to destroy cicatrices then other cicatrices more extensive must replace them - If it be employed in hard callous strictures in which resolution is no longer possible - far from ameliorating it aggravates the disease and prevents the cure which other more appropriate remedies might have obtained -

We cannot help acknowledging that there are strictures which do not yield to dilatation & become aggravated under the action of caustic. Such are in a great number of cases those which depend on cicatrices bridles indurations &. &.

To these refractory strictures we may, (doubtless through difficulties) apply the action of incising instruments -

From the length to which this thesis has already been carried - it is impossible to discuss several of the subjects originally proposed - I among others those of Incision & Scarification - The latter of these methods has after a trial of more than twenty years - been almost abandoned in French practice - while the former as advocated by M. Dupuytren - has only begun to obtain from the Hospital Surgeons of Paris - that degree of attention which its pretensions merit -

It has however been adopted by M. Civiale as the only means of curing radically cases of undubitable Stricture & it has further been employed by him in upwards of a hundred such cases as the only certain means of preventing a return of the disease -

The examination of the past history & present state of the treatment of Stricture in France - has added confirmation to the opinions which we have been taught to entertain as to the important place that Incision of the Urethra is yet destined to hold in the treatment of all forms of Organic Stricture -

Philosophers have discovered not only in Medicine but in all Natural Sciences the existence of a principle of progressive improvement which at times manifests itself / may even when the science is complete be traced backwards - from its commencing stages - This progression is not uniform & may exhibit many interruptions. Centuries may have elapsed without perceptible advance - when, as if by a sudden - impulse -

impulse — simultaneous movements take place in contemporary schools — great discoveries are promulgated — & in a brief period of time several stages of development may be accomplished —

Retrospection may also accord & give force to the saying of a distinguished man. "Il est curieux de voir l'esprit humain roulant dans cesse dans le même cercle de vérité et d'erreur."

The opposition which Perineal Incision has met with in the English Journals has appeared to us directed against this progressive advancement to which we have alluded — & the attempts to reintroduce the use of caustic in cartilaginous & long standing strictures must be considered as a retrogression in the treatment of Organic Stricture —

Cauterization has long been abandoned in England — & there are few candid writers who refuse to acknowledge the frequent insufficiency of Dilatation — In the above pages we have examined the received opinions in a country supposed by many to excel our own in the treatment of urethral diseases — & We hope that satisfactory proof has been brought forward that no argument can be adduced against Perineal Incision on the ground of the superiority of the old operations & old modes of treatment —

We w^d have wished to enter further on this subject & have shown that simultaneously with the promulgation of Mr Syme's Perineal incision — an operation in some respects similar both in principle & results was proposed in France — which has had the effect of directing from the mind of the Medical Profession many erroneous opinions with regard to Incision of the Urethra.

We might also have shown by an appeal to the opinions verba of the different French authors — that a silent testimony has been given by them to the value of Incision — inasmuch as this has been for many years the established if not the universal practice in stricture near the meatus. We shall quote merely in illustration the words of M. Segalas — written soon after the death of Ducamp & those of M. Civiale at a later more recent period — "There is" says M. Segalas "a part of the urethra where the caustic succeeds badly — at the entrance of the gland the meatus — at the anterior part of the fossa navicularis. I have remarked that nowhere are the effects of caustic so slight so uncertain as here — It develops constantly more or less irritation at the gland — & there supervenes in consequence a proportionate inflammation of the spongy dense tissues which constitute this organ — x x Here is the case or never to have recourse to a cutting instrument."

"Divers curative means" says M. Civiale "have been put in
"use against this species of stricture. Temporary dilatation
"besides being very painful sometimes induces general &
"local accidents, when too great precipitancy is employed
"& requires a long period of treatment. × ×
" The sonde à demeure involves consequences so grave
"that recourse ought seldom to be had to them. × ×
"Cauterization is without result except in cases
"of slight membranous stricture —
" The insufficiency & inconvenience of these methods have
"led me to adopt employing (Division by the urethrotome) another & of which the practice of litho-
"tripsy has made me appreciate the advantages. Several
"Surgeons have already adopted this operation × × I shall
"cite among others M. Lallemand who has renounced cauteri-
"& had recourse to incision."

An argument has been adduced against Mr Syme's
operation from the alleged frequency of impermeable
stricture — This might have been submitted to the
same mode of examination — were it not that the many
operations which have been proposed in such cases —
forced dilatation — cauterization — incision from before back-
wards. puncture of the urethra rectum & — have rendered
many surgeons little alive to the necessity of
patient attempts to introduce the ordinary bougie —

Those among the eminent surgeons of France - Despo
Civiale - Amussat & - who consider all such operations for
the relief of urinary retention hazardous & unadvisable
have ample testimony like the concurrent dicta of Englis
& Scotch surgeons - to the extreme rarity of Impermea
Strictures -

FINIS -

Paris - March. 27th 183