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A few Remarks-

on

Encephalitis.

B R & S

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Inflammation of the Brain and its membranes is a disease commonly met with in practice under the name of Phrenitis. In which we find the symptoms of meningitis and cerebritis variously blended, according as the one or the other predominates, and hence the general inapplicability of the nosological definitions which have been given of Inflammation of the Brain - When meningitis occurs in a separate form, it appears to present the general characteristics of membranous as opposed to those of parenchymatous inflammation, that is to say, the pain is more acute, and the inflammatory excitement of the whole system is much greater.

Cerebritis again may be either general or partial. Acute inflammation affecting the whole or the greater part of the cerebral substance is indicated by symptoms very similar to those of acute meningitis, the pain in the head being intense, along with very high febrile excitement - the attack however not coming on so suddenly as in acute meningitis and is more frequently preceded by premonitory symptoms - such as pain, feeling of fulness in

the head, vertigo &c— The symptoms of general Cerebritis also usually terminate in coma and collapse much sooner than those of acute Meningitis— general cerebritis seldom takes place without more or less affection of the pia Mater, and is almost always an acute affection, and terminates fatally in a short period of time— persons have died so soon as within twenty-four hours, and few survive much longer than a week— partial Cerebritis may be acute, sub-acute, or chronic— The acute form being marked by symptoms which would seem to indicate inflammation of the cerebral substance— the lesion of the particular functions being more or less remarkable according to the part of the organ principally implicated— The sub-acute form which is the most frequent— show the same symptoms of the acute but in a minor degree of intensity. In this form the disease comes on very insidiously, the first symptoms consisting at first of simple headache, dizziness, dimness of vision, perhaps also stammering or drawing of speech— and all without either fever or delirium— causing little or no apprehension on the part of the patient or his

friends, untill he is suddenly seized with coma, or paralysis of a limb, or hemiplegia, under which he sometimes rapidly sinks, and at other times partially recovers, but eventually falls a victim to a second or third attack of palsy.

The structural changes produced by inflammation of the cerebral substance will vary according to its degree and duration - The only appearances usually observed in acute Cerebritis, are a florid injection of the diseased substance, shewing when cut into, a number of red dots which proceed from rupture of the capillary vessels.

Suppuration is seldom found, on account of the disease following so rapid a course, nor is mortification much more common, the more so where the inflammation results from injury, than where it is idiopathic -

The subacute forms of Cerebritis give rise to abscess, which is most frequent in the hemispheres - simple softness of the texture of the brain - ramollissement, induration of the substance, this last most frequently found in Maniacs and typhoid fever patients - The Chronic Cerebritis generally occasions softening or induration, but the lesions arising from the subacute are

also sometimes consequent on this -

as before stated Cerebritis and Meningitis frequently occur together, but it is plain that there must be great difficulty and uncertainty in attempting to diagnose each separately. indeed it appears impossible to do so. The symptoms of what is called Phrenitis which are most satisfactorily ascertained are as follows. There is great disturbance of the vital functions, a high state of excitement at the commencement, followed by a corresponding degree of depression, running speedily either towards recovery or a fatal termination with comparatively but little intermission of the acute symptoms. In partial Cerebritis the disease is seldom so rapid, its invasion being more gradual and preceded by symptoms of irritation in the organs of voluntary motion, sensation, or intelligence and in the advanced stage of the disease the functions of these organs almost invariably become impaired or destroyed.

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There are some well marked instances of apparent amendment even after paralysis has taken place, and altho' the febrile excitement may be diminished, the danger

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cannot be considered at an end - the favourable appearances are often fallacious, being soon followed by repeated relapses which frequently prove fatal.

In some cases of partial Cerebritis of some continuance, the symptoms assume a periodical character, returning regularly at certain intervals therefore care must be taken not to mistake the disease for Intermittent fever. Instances are recorded of such mistakes, the consequences of which have been fatal -

The well known tendency of most diseases of the brain to assume a periodic form, militates against the opinion of these exacerbations being the result of sudden congestions of that organ.

one of the most frequent symptoms in partial Cerebritis at an early period, is, a local paralysis, along with spasmodic rigidity of the muscles, producing permanent flexion of the limb or member - Such symptoms most commonly manifest themselves in the arms primarily, in which it is generally greatest, even when it extends to the lower extremities. The tension of the flexed limb sometimes being attended with considerable pain, which however is not always present. In some cases of acute

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Meningitis and phrenitis there is a convulsive rigidity, or retraction of the muscles, but no paralysis, and when the retraction intermits, the patient recovers the motion of the affected part, the rigidity alluded to being scarcely ever limited to one limb or even one side of the body, as in partial Cerebritis, affecting both sides in various parts at the time, the sensibility also remains entire, while in the greatest number of cases of partial Cerebritis it is obtuse, and in some members of the body is often entirely destroyed.

Although these rules may give some assistance in attempting to distinguish between Meningitis, Cerebritis, and partial inflammation of the brain, they are not always to be depended upon, there being such an endless variety of symptoms and changes during the course of this disease.

Some have thought that convulsion of both sides of the body may indicate Meningitis, but when the substance of the brain itself is diseased, the power of voluntary motion is more or less impaired, if not totally destroyed, as seen in paralysis - we sometimes see both sides of the body convulsed by paroxysms, and when this subsides, one side of the body or part

of it may remain paralysed - in such cases there is reason to believe that Meningitis has supervened to partial Cerebritis -

In the present state of medical knowledge we are not able to ascertain from the symptoms the exact state of disease the brain may be in, or when the disease is local, can we decide on its seat - Headache, delirium, convulsions, spasmodic rigidity, paralysis - with a greater or less degree of coma, are symptoms, some of which are always present in Cerebral inflammations, whether it may be a state of simple inflammation Serous effusion, ramollissement, Suppuration, (encysted or diffused), Ulceration, the disease always proving fatal in nearly all these states -

Before attempting to enumerate a few of the morbid appearances presented by the brain after death from inflammation, it may be proper to remark that several of these appearances may depend on accidental circumstances, which ought not to be mistaken for the effects of disease, The brain of a person who has died of an acute disease is always more vascular than in those who die of a chronic affection -

If the head of a subject to be examined be left

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in a dependant position for any length of time, a considerable degree of injection of a uniform redness will be found to have taken place from the mere gravitation of the blood, this frequently takes place in warm weather, or if the warmation be delayed until putrefaction may have commenced, It is very difficult in the early stage of inflammation to distinguish between this state and simple Congestion - There is however one incontestible proof of previous inflammation, viz, the deposition of a new product in any texture - Such as Lymph or pus -

The morbid changes which are observed to have taken place in the membranes of the brain after inflammation are - simple redness, thickening, opacity, with increased firmness, serous effusion, beneath, or upon the arachnoid, or into the ventricles as in Hydrocephalus - a sero-purulent exudation, and false membrane, when the exudation is beneath the arachnoid, it is elevated above the convolutions, or rests on the surface, the sulci between them is filled with a fluid of a gelatinous appearance,

When the cerebral substance is the seat of disease, there is a high degree of vascularity of the Brain, which when cut into, presents a great number of red points from which blood oozes, The naturally, colourless capillaries being then filled with that fluid, There are often observed larger red spots, somewhat resembling echymosis, which is owing to the rupture of several capillaries, when numerous, they give this organ a mottled or marbled appearance with various tints of red, when the substance of the brain is much infiltrated with these effused drops of blood, the delicacy of its structure causes it to be easily broken down, becoming softened round those spots, several of which may be found with small coagula of blood in their centre, constituting what is called the red softening.

Cerebritis may prove fatal by supuration, in such cases the pus is occasionally found in their ^{layers} under the arachnoid, sometimes between the arachnoid and Dura Mater, and between the latter membrane and the Bone, pus is also found in the ventricles, but purulent matter is most frequently

found in the substance of the Brain, either in distinctly defined abscesses, by a delicate soft cyst, or an extensive portion of the Cerebral substance may be found in a semi-purulent state, without any well defined cavity -

The cerebellum is very frequently the seat of these abscesses, both defined and otherwise, Dr Robertson (late professor of Practice of Physic of Mc Gill College Montreal) mentions the case of a boy, eight years of age, who had been affected with symptoms of chronic hydrocephalus for several years, after death, several ounces of a clear fluid were found in the ventricles, and an abscess surrounded by rather a firm cyst in the cerebellum. It was of the size of a hen's egg, and of a similar form, in this case no paralysis or convulsions took place until within a few weeks of the boys death, but he had always complained of headache, was dull, and disinclined to amuse himself, like other children of his age. Abscesses of the brain are sometimes the consequence of acute, at other times of slow, insidious,

or chronic inflammation, as appears in the case just quoted - the pus in these instances being circumscribed, is prevented from doing injury to surrounding parts, the containing cyst however is apt to bring on a fatal termination of the disease by exciting fresh inflammation in the adjoining cerebral substance. The cyst appears to be formed nearly in the same manner as it is in Phlegmonous inflammation. viz. by layers of coagulable lymph becoming organised and their delicate vessels mixing, or rather forming a union with those of the surrounding portions of the brain - The first layers are thin and remarkably delicate, other layers however being added until the walls of the cyst become completely organised, its sides have been found in cases of long standing to be nearly fibro-cartilaginous, and even encrusted with calcareous deposit. Suppuration has been known to take place or be produced by inflammation of the brain, in a very short time, Laurence has seen it within four and twenty hours - Abercrombie met with small undefined

abscesses at the end of four days illness—
 Cases are recorded of extensive suppuration
 existing in the brain without any symptoms
 indicating such a disease until almost
 immediately before death, when from
 some sudden exciting cause decided symptoms
 of cerebral disease manifest themselves, and
 the patient sinks into a state of coma and
 insensibility, or he may be attacked with
 Convulsions—

Another and very peculiar termination of
 inflammation of the brain, and which
 has lately been the subject of much enquiry,
 and observation, is what is called Ramollissem-
 ent or softening of a portion of cerebral matter.
 It is sometimes called a termination or a
 consequence of inflammation, owing to a
 large majority of those who have invest-
 -igated the subject, and who have given their
 opinions to the public, having viewed it
 in that light— There are some French
 authors who consider this change of structure
 as an affection, sui generis, distinct from any
 other, as one of them (Recamier) says analogous
 to softening of the spleen, and the primary

cause of certain nervous fevers - Mr Rostan one of the authors on cerebral diseases likewise considers it as an affection of the brain entirely, *in generis* although he admits that it is sometimes the result of inflammation - Almost, if not all the cases related by him occurred in persons about 70 years of age, he calls it *gangrena Senilis*, and considers it a real gangrene of the brain, depending on a diseased state of the bloodvessels -

This peculiar disorganization or softening of the brain, consists in a part of the cerebral substance being broken down into a soft pulpy mass, retaining its natural colour but having lost its cohesion and consistence. It differs from suppuration in wanting the colour and foetor of pus. Those portions of the brain in which it most frequently occurs are the white central parts, and they retain the pure milky colour, according to the observations of Dr Abercrombie it may be found in any part of the brain, but its most common seat is the dense white mass forming the Corpus Callosum & Fornix. -

Dr Robertson states, that all the cases

which came under his notice were ushered in
 by unequivocal symptoms of acute inflamm-
 ation, in two of those cases, pus was found in
 other parts of the brain, and in one, considerable
 effusion of serum into the ventricles, the
 subject was a boy eight years of age, who died
 with all the usual symptoms of acute hydroceph-
 alus — Ulceration is a rare termination of
 cerebral inflammation, it is said to have been
 found on the surface of the convolutions, on
 the optic thalami, and Corpora Striata —
 Dr Robertson says he saw a case of very
 decided ulceration on the surface of the
 convolutions of the left hemisphere, the
 ulcerated surface was partially covered with
 an albuminous exudation, its edges were
 jagged and irregular — He also saw a case
 where there appeared to be a considerable
 ulceration on the side of the left hemisphere
 towards its base, there was a fracture of the
 skull with a spicula of the inner table
 projecting into the substance of the brain at
 the ulcerated portion, the man died in six
 days after the accident, being the entire time
 insensible —

Effusion is more frequently a consequence of Meningitis than of Cerebritis, and when we see much effused fluid either on the surface of the brain, at its base, or in the ventricles along with inflammation of the cerebral substance the pia mater and arachnoid are usually, if not always found to be affected.

There are several diseases with which Encephalitis may be confounded, or for which it may be mistaken, (by Encephalitis is meant inflammation of any part of the cranial contents), although there are symptoms and phenomena which assist us in forming a nearly accurate diagnosis, yet no one can doubt that cases do occur in which the diagnosis must be involved in great doubt and obscurity. It is more difficult to distinguish between inflammation of the substance of the brain than of its meninges, it is often impossible to form a correct diagnosis in these cases, and fortunately it is not of much consequence as regards the treatment proper to be employed, it having been found that what is good for the one, is equally so for the other. In the greater number of cases of meningitis, the attack is not preceded by premonitory

Symptoms - There is decided febrile excitement without paralysis, followed by collapse. Convulsions and spasmodic symptoms take place on both sides of the body, while in cerebritis they are only partial at first, the paralysis becoming complete as the disease advances. In this there are well marked premonitory symptoms, with irregular exacerbations and remissions - Some of the premonitory symptoms of cerebritis resemble rheumatism - such for instance as pain in a limb with numbness, weakness, and stiffening, but there is no local swelling - redness or pain on pressure - There are several other diseases, many of the phenomena attending which, very much resemble some of the leading or prominent symptoms of cerebritis - such as Epilepsy, Chorea, Hysteria, nervous and bilious headaches -

Inflammation of the brain exists in combination with various other diseases, such as Hypertrophy of the Heart, inflammation (especially, chronic) of the Lungs, Liver, Stomach and bowels, as well as with more general affections of the system, as Continued fevers, some of the Exanthemata, as measles, Small-pox, Scarletina, Erysipelas &c

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It therefore ought always to be borne in remembrance when treating any of these diseases, the possibility of such a combination, more especially if any symptoms arise indicating head affections.

The presence of one disease often modifying the symptoms of another which may be existing at the same time - In endeavouring to form a just diagnosis we must be careful to discriminate between diseases attended with vascular excitement, and those arising from a purely nervous irritation, this is more particularly necessary as both causes sometimes react on each other - Much important information may be obtained by enquiring into the previous habits of the patient, as well as attending to the predominant character of the Temperament, and of the prevailing diathesis whether Sanguineous or nervous - The great irregularity of purely nervous symptoms form a striking contrast with the comparatively uniform and durable nature of those which originate in, or depend upon disorder of the vascular system - and the absence of all tendency to permanent paralytic affections in nervous cases greatly assists in forming a proper distinction -
As connected with the subject of cerebral inflammation

we may take notice of the opinion of some French pathologists who have made minute and most interesting enquiries into this subject. They attempt to point out the particular portion of the brain affected during Cerebritis by attending to the various modifications of the paralytic symptoms. They coincide with the opinion of many of the older writers, that if the nervous filaments could be traced up to their remote origin in the brain, it would be found that each part of the body receives its nerves from a determined part of the brain, consequently any lesion of that part must affect the functions of the organs to which it furnishes nerves - Pinel, Foivre and some others from numerous pathological observations made on the subject consider, first, That the paralysis of the organs of speech depends on disease of one or both anterior lobes of the brain, (M Boulland conceives that the anterior lobes of the brain presides for memory of words as well as of the organs of speech). secondly, They consider that paralysis of the inferior extremities depend on disease of the middle lobes of the brain, and of the Corpora Striata, thirdly, That paralysis of the upper extremities depends on disease of the

Posterior lobes of the brain, and of the optic thalami. Some of the same authors, particularly Foville considers that the cortical substance is the seat of intelligence or mind, and that the medullary matter is connected with motion - The principal grounds for this opinion are, that the cortical matter has been found in the case of Lunatics - highly injected, and often inflamed, whilst the medullary matter remained healthy, also that there have been several well marked cases of decrease of the cortical matter in imbecility. Dr Bennett in illustration of this, remarks, "that when disease (such as inflammation) attacks the parietes of the brain, or the Membranes, that the functions of mind cease nearly at the commencement of the malady - and on the other hand, when diseases, such as tumors, begin nearer the centre of the brain, and proceed outwardly, that the mind is last affected" - The small size of the convolutions and small quantity of cortical matter in the brains of idiots, also serves to illustrate the latter opinion of Foville -

In regard to the prognosis of disease of the brain, it may be observed, that, when the

extreme delicacy of the structure of the brain. The importance of the integrity of its functions to the preservation of life, and its being confined within a bony cavity, which prevent expansion in cases of inflammation, or the escape of effused fluids, are considered. almost any disease of the brain or its membranes must of necessity be attended with great danger - The symptoms indicating the greatest amount of danger are high fever, violent delirium, spasm or palsy of both sides of the body - Coma, paralysis of the bladder, retention of urine, oppressed, or embarrassed breathing - it may prove fatal in the acute stage, or its subsequent effects may destroy life, or terminate in paralysis more or less extensive - and again, when the spasms or paralysis are confined to one member, or on one side of the body, the sensibility but slightly affected. The prognosis is more favourable, as this indicates that only one hemisphere or a part probably of one side of the brain is affected -

Encephalitis is more dangerous in very young and old persons, than in those removed from both extremes, and it is better to have

to manage the disease in a child than in a person advanced in life, from there being a much more favourable prognosis in the one case than in the other. The more undisturbed the state of the intellect, the greater is the chance that the affection is confined within a small compass of the brain. The absence of delirium however must not always be taken as a favourable symptom, for it is well known, as before stated, that there may be extensive and fatal disease of the brain without delirium, and we consider as favourable circumstances, after an attack of Coma, a return to consciousness, without affection of the intellect, sound sleep - regular breathing, return of motion to the paralysed part, headache and delirium as less unfavourable than coma - It should always be borne in mind, that cases of inflammation, especially of the substance of the brain, are very liable to relapse, which should make the practitioner very guarded in his prognosis - when the disease assumes the chronic form, accompanied with creeping palsy, the prognosis

must be unfavourable, as there is great danger of failure of the powers of the constitution, and sooner or later it terminates fatally. Inflammation of the brain consequent on Concussion, is observed to be more dangerous than that caused by an injury of the head with an external wound -

Cerebritis in consequence of Sanguineous apoplexy is always attended with great danger. When profound coma is succeeded by headache and delirium, it may be favourable, as indicating an arretment of more or less of the previously paralysed powers of the brain, when on the contrary they are followed by coma, it is a bad omen -

The causes of inflammation of the brain and its coverings, are in most cases such as entirely elude our observation, we may notice such circumstances as are generally supposed to cause it. The difference between predisposing and exciting causes is sometimes merely nominal, for a predisposing cause, if its activity be sufficiently increased, may become an exciting cause - what are considered as

predisposing causes, are a plethoric habit, particularly in persons habitually costive. There is an hereditary predisposition, or tendency, to head affections in some families, whether they be of thin spare habit, with long neck and pallid countenance, or of a full habit, ruddy complexion, and short neck, which constitution constitutes what is called the apopleptic diathesis. Hypertrophy of the heart is a frequent predisposing and sometimes an exciting cause. Heart disease acts either by retarding the regular return of blood from the head, or causing it to be propelled with excessive impetus towards the brain.

Inflammatory affections of the brain often appear in the course of febrile affections. In the advanced stages of continued fever, it is always a bad symptom when head affections come on gradually and insidiously, requiring the most active treatment to give the patient any chance, in these cases again care must be taken not to mistake common delirium with stupor, so frequently met with in fever, for inflammatory

affections of the brain, the former passing off as the fever subsides -

one of the most common and severe examples of cerebral affections supervening on fever is met with in Scarlatina, some persons (especially children) recovering from which, whether it may have been mild or severe, after some exposure to cold, or irregularity in diet, severe headache, being neglected or improperly treated, is generally followed by convulsions and Coma - Anasarca which so frequently supervenes on these symptoms, or more correctly, on Scarlatina, precedes these symptoms, instead of attempting to support the strength of the patient. active purgatives low diet, and bleeding are considered the proper remedies -

Among the most common, and both predisposing and exciting causes are the suppression of long continued or natural discharges from the body, one of the best examples of which is the stoppage or suppression of the Catamenia in unsound or delicate young females, headaches or any other symptoms in the head occurring

under such circumstances require particular attention —

The suppression of artificial discharges, and of cutaneous eruptions. The healing of chronic ulcers, when followed by headache vertigo & ought not to be neglected, among the causes of inflammatory head affections may be mentioned. Gouty and Rheumatic affections, over exertion of the mind, depressing passions, such as grief, fear &c, great bodily fatigue, long continued nervous headaches, Epilepsy, Mania, and all neuralgic affections of the brain, for that organ cannot suffer long without a reaction taking place in the vascular system, unless the irritation be so intense as entirely to destroy its power. Painful dentition is a great source of cerebral irritation. Intense and long continued pain from any source may cause delirium and coma. External injuries, as falls, blows &c are among the most direct and more frequent causes than we are generally aware of, especially in children — The injury, being often apparently slight, and some time intervening between it and any alarming symptoms

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causes it to be entirely overlooked or forgotten
this certainly greatly adds to the danger, as
the first stage of the disease, and the only
time where remedies can be confidently had
recourse to, is neglected, —

In some cases of *P^htyris* there is a great
tendency, to sudden attacks of cerebritis or
meningitis — The patient being suddenly seized
with acute pain in the head and violent
delirium — The pulmonary symptoms sometimes
disappear for the time, and the patient who
before lay prostrate and breathless, starts out
of bed and exerts considerable strength — The
Cough, dyspnoea &c, seldom return until after
the attack in the head has subsided — The
two affections thus alternating with each other —
These are somewhat curious examples of the
actual transition of disease — Some authors
have even said that perfect recoveries have
taken place in the advanced stages of
P^htyris by the supervention of an attack
of mania — A derangement of the functions
of the urinary organs seems also to predispose
and to excite to cerebral disease — such as
"Ischuria renalis, which has often been noticed.

to have preceded serious cerebral derangement, when it ends fatally, effusion is found to exist along with marks of inflammation.

In many cases of this description, the patient complains for some days of a sense of weight and dull pain in the iliac region, this being usually followed by anxiety, restlessness, nausea, vomiting, hiccups, cramps, sluggish pulse, muttering delirium and coma, the urinary secretion in such cases being always much diminished, or sometimes entirely suspended, cases have been described where the perspiration had a urinous smell, it is easy therefore to understand that the blood in this condition should light up a serious action when it reaches the brain — Among other causes of these diseases may be mentioned, exposure to the intense heat of the sun in Tropical climates, which not only induces attacks of inflammation, but may also bring on mania, and apoplexy, with all its train of evils, this is termed "coup de soleil," numerous from which are very few in number, one very characteristic fatal case is recorded by

Dr. Abercrombie in his work on cerebral diseases,
 Long exposure to intense cold in general pro-
 duces symptoms indicative rather of congestion
 and a diminution of the functions of the
 brain, than of excitement - Stimulating liquors
 as Alcohol in any form, are well known to
 lead to cerebral disease, of which Delirium
 Tremens is a good example, when it proves
 fatal, appearances are found clearly indicat-
 -ing increased action of the cranial blood-
 -vessels. persons of intemperate habits are
 therefore known to be particularly liable to
 Cerebritis and Meningitis, and the resemblance
 between the symptoms of intoxication and
 apoplectic coma is so great, that it is
 frequently difficult to distinguish between
 them - The sympathies existing between
 the brain and digestive organs are too well
 known to require any comments. The sub-
 -acute inflammation of the mucous mem-
 -brane of the stomach and intestines (The
 Jaetra enterite) of French writers, is frequently
 accompanied by cerebral irritations. In
 children (especially during dentition) this
 inflammatory affection of the mucous

membranes frequently terminates in Coma, which is often preceded by a diminution in the secretion of urine - Dr Robertson in his lectures stated that he has seen children recover, from what he considered decided symptoms of cerebral affections of an alarming nature, so suddenly and completely, after a copious mucous stool, sometimes streaked with blood, that he could not doubt for a moment that the head affection was merely sympathetic with the intestines, which, like every other sympathetic affection is very obscure, but the importance of an acquaintance with such phenomena is quite obvious -

In the dissection of cases of acute Hydrocephalus in young children, we sometimes meet with "intus suscipio" in more than one part of the intestines - Most frequently they are free from inflammation or of thickening of the parts, and appear to be of recent occurrence - This affection may be produced from inverted peristaltic motion of the intestines, by frequent vomiting, which is a symptom of common occurrence

Dr Abercrombie

in the cerebral affections of childhood.

The Incautions and improper administration of certain narcotic and irritating medicines are known to have caused cerebral irritation and inflammation.

Nuxvomica and its ^{alkaloids} ~~and~~ Strychnine, have sometimes when given for palsy &c in the above manner brought on fresh attacks of the cerebral inflammation -

It may not be out of place to mention here another very common cause of disease of the Brain, which consists in improperly urging on the intellectual powers of children, especially those of a scrofulous constitution.

Dr Andrew Combe most satisfactorily shows that children so treated are either carried off by an acute disease of the Brain, such as hydrocephalus, or have their intellects so impaired as to render them nearly unfit for any mental exertion in after life. besides he adds, "in the event of their attaining to manhood, this treatment entails on them feeble bodies, and a disordered nervous system, which subjects them to Hypochondriasis,

Dyspepsia, and all the protean forms of nervous

disease:

Encephalitis therefore is a most dangerous affection. The acute form may often be arrested at the commencement by judicious practice, but if the disease is allowed to gain head it generally goes on to a fatal termination. In the sub-acute or chronic form, the prognosis is more unfavourable, because the approach of the disease is insidious, and it frequently has made considerable progress before being at all suspected.

In the treatment of the acute form of the disease. The most active measures must at once be resorted to, and rigorously followed up, the brain being such a delicate organ cannot bear much disease, and its power of recovery from idiopathic inflammation producing disorganization is less than that of the lungs or abdominal viscera - it differs from the last named organs in not being provided with excretory ducts, which are known to carry off the products of inflammation, hence arises also the greater amount of danger proceeding from idiopathic inflammation, than from that caused by external injury, called traumatic inflammation, when an

opening is found in the Skull -

The principal causes of apprehension, are inflammation of the serous membrane, and effusion into the cavities, Inflammatory Softening of the substance of the Brain, congestion, and apoplectic effusion - The treatment therefore must be active - removing all the ascertained exciting causes, and every source of irritation, both bodily or mental - regulating the diet, carefully avoiding all excesses. relaxation from study or other mental application, change of air. general or local bloodletting, occasional purging as Dr Abercrombie ^{says} by Croton oil, and counter irritation - when it is thought necessary to relieve the Brain from habitual congestion by occasional topical bloodletting, it is recommended to take blood from a distant part of the body, in preference to the head itself, for instance from the feet or legs by opening a vein, or applying leeches to the arms, the abstraction of blood ought to be repeated at certain intervals, according to the circumstances of the case - this mode of depletion is not to be employed during the active stage of the inflammation,

but before the accession of severe symptoms, then bleed from, or as near the seat of disease as possible —

Bleeding from a distant part has several advantages, among which may be mentioned that almost no fact is better established in Medicine than that the loss of a very small quantity of blood from certain parts of the body, is sufficient to relieve distressing symptoms of congestion and oppression in others most remote from them — as for example, the discharge of a few ounces of blood from the haemorrhoidal veins being sufficient to relieve vertigo, headache, flushings and oppressed breathing — The same is seen in the case of the Catamenia, altho' uterine irritation may have some influence —

In persons of a plethoric habit, especially if threatened with any head symptoms, it (the head) ought to be kept cool by wearing short hair, and if necessary by frequently pouring cold water thereon, keeping the neck open and free, the head and shoulders well raised by pillows during sleep, the feet, legs, and lower parts of the body

dry and warm - The insertion of an issue is often advisable in persons of this habit, with florid complexion, more especially, if they are subject to vertigo, headache, or to drowsiness - moderate exercise, attending particularly to the diet, avoiding all heating, stimulating, or rich food or drink, keeping early hours &c, constitute the best prophylactic measures, - but when the acute stage of the disease is manifested, The patient must be bled from the arm as largely as his strength will allow - some have recommended the temporal artery, or jugular vein as preferable to the arm to bleed from in this disease. but this seems doubtful for one or two reasons, the chief of which is that the pressure necessary to arrest the flow from the jugular vein would act very injuriously in aggravating the cerebral congestion - the arm is therefore generally used - but it may sometimes happen that the uncontrollable state of delirium of the patient, renders it dangerous or almost impossible to bleed, an attempt must be made to meet this difficulty

by dashing a few basons of cold water on the head, and that in quick succession -

Should these measures procure an interval of comparative tranquility, then venesection may be performed, but if anything like collapse takes place upon the application of the cold water, the operation ought not to be proceeded with, until the patient begins to recover, it is a powerful application and one that should be used with caution.

In the convulsions & coma of children it very speedily acts in rousing the little patients, and should never be ordered unless the practitioner or a skillful nurse is present to superintend the operation -

Supposing the patient to have been bled freely, the next measure is to cause a derivation from the head by an active and irritating purgative, which some say is answered by a full dose of Calomel and Jalap, followed by saline purgatives -

The application of blisters should be deferred until the vascular actions have been diminished by other means, and it will then be better to apply them

to the extremities than to the head—
Antimonials should be given to keep the
skin moist, and the antiphlogistic
regimen exactly enforced—

In the comatose and sinking state,
very little can be done, the whole aim
of the judicious practitioner being to
prevent if possible the accession of
this fearful state, by subduing the in-
flammation at first— it is possible
however, that by bringing the system
under the influence of Mercury, we
may sometimes check an incipient
disorganizing process, or make an effort
to promote the absorption of fluids that
may have been effused— Throughout the
disease, the position of the patient should
be such as least favours the determination
of blood to the head—

The sub-acute and chronic forms of
inflammation of the brain, afford
less chance of success to the practitioner
than the acute, In these, active depletion
is not called for, and if applied, would
be injurious, The repeated abstraction

of small quantities of blood by the Lancet, -
 Cupping, or Leeches, according to circumstances, -
 continued counter irritation by blisters or
 setons - laxatives - attention to diet - and
 in some instances the cautious use of
 Mercury, constitute the means which
 are most likely to prevail - but as before
 said we cannot be sanguine of success
 in these cases -

The practitioner may meet with cases in
 which the already mentioned treatment
 will be successful, and with others, in
 which the symptoms persist, in spite
 of the best treatment, the energies of life
 becoming more or less depressed. The pulse
 rapid, irregular, feeble, Coma and Stupor
 more profound, the temperature even of
 the head being much reduced. - He may
 or may not have had recourse to derivatives,
 but in either case they must be continued
 and varied. for this purpose Camphor, musk
 Valerian, Ammonia, as restoratives - If
 the pulsation of the Carotids, and the
 temperature of the head be not in such
 cases increased, or if they be diminished

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and the energies exhausted, both in the affected organ and throughout the system, then the above treatment will be inefficacious - Then the infusion of arnica flowers, or the infusion of serpentaria, either simply or combined with cinchona, larger doses of camphor, with Calomel & a small quantity of opium - when the structure of the Brain is already seriously injured, and the disease irremediably mortal no harm can be done by the above courses, while in doubtful cases, and when the symptoms result from mere depression of the vital powers, the patient may be rescued, therefore, this chance in his favour ought not to be neglected, -

Much has been said and written on the foregoing subject, and much yet remains to be done before we can arrive at any satisfactory conclusions regarding the pathology and functions of the human brain - and even if we were possessed of the means of experimenting on it during life, the investigation would still be beset with difficulties, for as is observed

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in the lower animals such experiments are necessarily accompanied with a severe shock to the system, and it is natural to conclude that the same result would ensue in the human subject to such an extent as entirely to defeat the object of enquiry. Some have remarked that it is to be regretted that so little faith can be placed on the theory of Drs Gall and Spurzheim, as regards the localization of the intellect or Phrenology, as otherwise we might be considerably aided in our diagnosis of the diseases of certain parts of the Cerebrum -

But, on the other hand, with all its difficulties, there is also a good deal in the pathology of the brain and nerves that is made out, and well understood, the proof of which is, that many and valuable lives have been saved by a line of treatment based on principles so guided, there is therefore reason to hope that we are in the right way for advancing our knowledge of this most intricate and mysterious subject.

by that careful collection of facts, as well as rigid induction of particulars, that will lead at length to a safe and useful generalization;— There can be but little doubt also, that if other important conditions necessary to the health of the brain were more attended to than they are, that the frequency of diseases in it would be greatly diminished. Among those conditions may be mentioned that by proper exercise, a requisite amount of oxygenated blood be sent to the part, and also that a certain amount of mental application is necessary, otherwise the patient is obnoxious to nervous diseases of a most serious nature, such as Melancholy, Hypochondriasis and Hysteria in the case of females, even Insanity has been produced from the want of exercising the mind, all of which really depend on an irritable state of the brain thus induced, practitioners and patients however, are becoming more convinced of this, so that, if we have not the means of effectually treating cerebral diseases when they do occur, we certainly have the means of preventing them, which at all times is better than cure —