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Rankin

Thesis

on the

Nature, Symptoms, Diagnosis and Treatment of Ovarian Dropsy

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Ovarian Dropsy.

There are a number of diseases to which the ovaria are liable, but the most common, and that which surpasses all others in the frequency of its occurrence; as also the one which generally occurs to the observation of the medical practitioner is Ovarian Dropsy. It is a disease which has caused sometimes no small difficulty in its diagnosis, and which has baffled the skill of the most scientific; and the cure of which has given rise to a most serious and dangerous operation, the propriety of which has been questioned, and its performance has given rise to much discussion and controversy, and as yet remains an open question.

Under the term ovarian dropsy have been included by different writers several diseased structures. The principal varieties that may be classed under this head are as follows:—

I. Multilocular serous cysts (areolar or colloid cancer of some authors.) which is by far the most common.

II. Unilocular serous cysts, which are not so common.

III. A variety of ovarian cysts containing hydatids are avowed to occur by Vater & Ruysch, but these are believed not to be independent but varieties of multilocular cysts, and that few if any authenticated specimens of such morbid lesions are to be found on record.

IV. We have simple serous cysts attached to peritoneal surface of Ovary — Broad ligaments, &c. Such varieties occur and may attain equal size and dimensions as the true cysts that are found in the Ovary. They are frequently mistaken as such and unfortunately there is some difficulty in their diagnosis.

V. Dropsical dilatation of the Fallopian Tube. The distention of the Fallopian

tube, and the accumulation of fluid within its cavity sometimes takes place, and may frequently lead the practitioner from its enormous size to suppose it a case of true ovarian dropsy. In most cases it may be distinguished with care; but at the same time there is sometimes considerable difficulty in its diagnosis and errors no doubt are and may be committed with regard to its nature.

VI. Lastly we have a variety of cystic growths connected to the Ovary where there are peculiar cysts attached to the organ containing the remains of Foetal developement, and are not of a morbid kind.

In writing upon this subject I shall treat more especially of two varieties, because they are the most common forms of Tumor met with in this organ, all the other varieties being rare in comparison to these:— These are — Unilocular and Multilocular degeneration of the ovary: the latter variety being the most important and most frequent type met with in dropsical disease of the Ovary.

By encysted ovarian dropsy I mean

the conversion of the substance of the ovary into cysts of various sizes or into one large unilocular cyst. It may be defined as a cystic disease of the ovary. And when these cysts secrete or contain fluid it has been called cystic degeneration of the ovary or Ovarian Dropsy.

I. The unilocular or simple cyst of the ovary — is not by any means common and seldom reaches such a size as the other form of cystic growth found in the ovary, sometimes neither being detected during life nor giving rise to any unusual symptoms. Instances are met with of the size of a cherry or hazelnut and consisting as generally believed of distention or enlargement of a Graafian vesicle: but in the neighbourhood or locality of the ovary one large and simple cyst appears sometimes to be developed at the expense of the remaining part of the organ.

Mr Stafford Lee states with regard to this kind of cyst:- "One diagnostic mark of these cysts is that when tapped with the fingers, they produce very distinct fluctuation through thin and rounded walls. They give rise to hardly any constitutional disturbance, and very frequently are cured by tapping or by accidental rupture: when this latter circumstance occurs, you find it followed by a great discharge of fluid

either from the bladder or rectum. They are slow in their growth, rarely acquire a great size, more frequently occur in females that are young and are very seldom fatal in their results."

II. The Multilocular or Compound cyst- by far the most common variety consists of a large tumor attached to the ovary and made up of various cells or distinct cavities, which vary much in their size and number; and also in the contents of these cysts and the thickness of their walls, there is considerable difference.

The formation of these multilocular cysts have given rise to much discussion amongst Physiologists. We have growing from the interior of an ovarian cyst many small ones as if by a process of gemmation.

"They are distinguished by Hodgkin into two classes. The first comprehends a cyst formation with cysts of a secondary order in the parietes of a voluminous cyst: and these secondary cysts involve in like manner cysts of a tertiary order within their parietes. These secondary cysts project on the exterior of the parent cyst rather than on its interior, and sometimes the walls of the parent cyst are separated and receive the secondary cysts as it were in a chink.

"Such a formation is to be distinguished from a groups of simple cysts developed in mutual juxtaposition, some one of which predominating in size, flattens the contiguous, smaller ones. A groups of smaller cysts in an ovary may readily mislead; making it seem as if the fibrous capsule of the ovary were but the wall of a cyst, and as if the smaller cysts interposed between it and a contiguous larger were secondary cysts.

The second category comprises cysts in which secondary cysts arise upon the internal surface of the parent cyst and grow into its cavity. They are sessile upon a broad base, or more often upon a neck or pedicle, in which case they mostly represent pear,- or wedge-shaped tumors. They often so luxuriate in number and at the same time grow to such a size, as nearly to fill a parent cyst of considerable magnitude. In rare instances a solitary cyst of this kind so increases as singly to fill up the space of the parent cyst, causing the sac to consist, down to the base of the filial cyst of two contiguous layers." (Rokitanski)

"There also occur, according to Rokitanski, on the inner surface of the cysts, both parent & secondary, ramified cauliflower excrescences, flattened or fungoid or pedunculated. These are scattered singly or grouped

together, or knotted in masses. Sometimes they cuscuriate in and by the side of the said secondary cysts to such an extent, as to fill both these and the parent cyst, rupturing the latter, and, in the frequent cases of ovarian cyst invading the peritoneal cavity. In the ruptured secondary cysts we often recognise their sheaths folded back, and reflected over the cauliflower vegetation".

This variety of ovarian cysts generally and in nine cases out of ten rapidly progresses, and ultimately by its growth and pressure upon neighbouring textures, or from the result of inflammatory action having seized upon the tumor, may carry off the patient.

As the disease advances and the tumor developes itself we usually have one cell or cavity preponderating, and exceeding in size all the others: and it is of importance to know in what direction it tends to grow, and where the cell is to be found, in order that in tapping for ovarian dropsy we may be aware of its locality, and know at what place the trocar may most advantageously be introduced in order to evacuate the cyst.

The tumor sometimes remains a pelvic growth, and here may cause little or no inconvenience, but such rarely happens, and is more the exception than the rule,

as it has a great tendency to advance rapidly in growth. As it enlarges it rises into the abdomen and becomes an abdominal tumor, and it is when it has reached this stage that we have one of the cells taking on a greater developement and surpassing all the others in its dimensions. The tumor tends to grow in a certain direction (as first pointed out by Dr Simpson) and he accounts for this circumstance as depending upon a certain pathological law by which cystic tumors like other morbid growths increase and grow in that direction where there is the least physical resistance. Ovarian tumors usually do not grow readily towards the inferior or pelvic side, because there the floor of the abdomen and pelvic parietes offer a great impediment to their growth: and we have it consequently growing to the greatest extent superiorly; and anteriorly rather than posteriorly for it is resisted less by the abdominal parietes in front than by the denser fabric of the abdominal cavity at the side and behind. Hence it is that when we perform the operation of paracentesis we generally send the trocar into the largest cavity by piercing the anterior part of the abdomen. And it is a result of the same law, that the contents of the more prominent cyst or cysts are much more.

fluid and more easily evacuated; those that are inferiorly being more compressed and hence their contents are more concentrated and less easily evacuated.

I have mentioned that in the interior of the large or parent tumor we have secondary masses growing into its interior and developing upon the internal membrane in a mode similar to the Gemmiparous generation among the lower animals; and by times we have one or more of these cells bursting and emptying their contents into the parent cyst and thus they communicate with one another and constitute one continuous cavity. So that by tapping such a cyst you would empty all the cells at the same time. And Dr Blundell makes mention of a preparation of Mr Cline's where this is the case.

The walls of the cysts vary in thickness, some being very thin while others are thick and fleshy. The cyst walls consist originally of densely reticulated areolar tissue though afterwards they are liable to undergo change owing either to a hypertrophied condition of their parietes or to certain diseased structures being deposited in their texture. In their walls are often seen minute structures of a cystic nature. The lining membrane of the cells is generally of a smooth

shining appearance, covered with epithelium, and presenting the characters of serous membrane; though sometimes it has been seen to display the character of a mucous membrane; and it is apt to become coated with lymph and otherwise altered from the effects of inflammation. In some few cases it is covered with irregular excrescences, which are compared by Burns to "uterine cotyledons"; but these no doubt consist in a new development of secondary and similar cells.

The walls of the cysts are well supplied by blood: and bloodvessels are seen ramifying and distributing themselves over the parietes of both the primary and secondary cells; and the principal cyst is sometimes so vascular as to appear upon its inner surface quite injected. The pedicle by which these cysts both unilocular and multilocular are in general attached, varies in thickness, sometimes being not much larger than the thumb, while in other instances it is much larger; transmits large and numerous bloodvessels; and instances are on record where from the vascularity of the pedicle, bleeding has taken place of such a serious nature as to cause death.

Contents of the cysts.— The substances found in the interior of the cysts vary much in their appearance

and consistency. They may contain a clear or pale yellowish or greenish serous fluid; next a thick glairy and gelatinous fluid or semifluid matter, or we may have the contents discoloured and mixed up with blood and pus the result of inflammation lighted up in the tumor. Fluid resembling in appearance the grounds of coffee ~~has been discharged~~ has been discharged from these cavities; and some others contain a fluid of an olive green colour, in which a number of shining crystals are found, and these under the microscope have been detected to be cholesterine. In the compound ovarian cysts we may have all these varieties of contents contained within one tumor; and by the breaking up of the walls of the secondary cells they may be mixed up and agglomerated together. The contents of the smaller secondary cells are of greater consistency and present a more or less semisolid aspect.

Dr. Rees has examined the fluids in various cases taken from ovarian cysts, and compaired them with the constitution of the Blood: and has found water, albumen, with traces of fatty matter, alkaline chlorides with sulphates of lime and soda, Extractives &c. Compaired with the constitution of the blood, they contain

less albumen than that fluid, and there is an excess of water and extractive, particularly albumen combained with soda, which gives to the fluids of ovarian cysts their peculiar mucoid character

We find the cystic growths of the ovary in some instances to contain solid matter such as hair, bone, teeth, and fatty or stearoid matter; and it is mentioned that a variety is met with where the cysts contain fat, but in the centre is found a quantity of hair. Such remarkable species of cystic growths have given rise to much controversy as to their pathological nature. The opinions concerning which I shall not here enter upon; but I may be allowed to state that the general doctrine held and that which appears the most convincing, is, that they depend upon a peculiar process of morbid structure whereby the interior of these cysts are endowed with the power of producing cutaneous growths.

It has been disputed whether cystic disease of the ovary is of a malignant type; and this is of importance with regard to its treatment. It is a disease which when once removed is not liable to recur again in the same ovary; and never I may say has been seen to reappear. It is also a diseased structure that is not liable to spring up in other

organs: it sometimes spreads by contiguity of tissue. The symptoms that attend this disease of the ovary are different from those of cancer; the patient not bearing the cachectic look or appearance of those affected with the cancerous diathesis. This affection may ultimately kill the patient as generally the case, though not in the same way as cancer does, but from encroaching on vital viscera and interfering with the process of assimilation. I think therefore that the conclusion may be drawn that encysted ovarian disease is not malignant.

There is no doubt cases where cancer may be combined with ovarian dropsy; and Dr Blundell says on this subject, "That in dropsy of the ovary, the disease is not always simple; with ovarian dropsy schirrus may be combined, whether this be seated in the ovary itself or in the uterus; the combination of schirrus and dropsy, in the same ovary, being by no means uncommon: add to which, that when the ovary on one side is affected with dropsy, the ovary on the other side may be affected with dropsy too." And no doubt when combined with schirrus, it may thus more rapidly carry off the patient and affect the constitution; yet for the reasons mentioned before I conclude that in general Ovarian dropsy is of a benign character.

Ovarian dropsy has been seen to attack females at all ages, and no time of life seems to be exempt from it; though as a general rule it occurs more frequently in the married than the unmarried; but the latter are frequently attacked by it. "Of 136 cases where the fact was noticed, 88 patients were married, 11 were widows, and only 37 were single." (Safford Lee.)

The age at which the disease may affect the female varies, occurring at any period of her menstrual life, and most frequently at that time when the reproductive functions are in their full activity, that being between the ages of 20 and 40. There are cases mentioned where it has been observed in the child before puberty, and the commencement of it has been noticed in the foetus, in the existence of serous cysts attached to the broad ligaments: but such examples are rare.

Some have looked upon the malady as hereditary owing to its occurrence sometimes in members of the same family.

As to the cause that gives rise to this disease, we know little or nothing, these being as yet only partially known, and are very difficult of investigation.

Safford Lee says, "that many patients are unaware of of any disease going on in their system, until they

are encumbered by its weight, and some perceive an uneasiness in the side, and are unable to trace it to any cause, while others trace it to causes, which it is impossible for the disease to have". Generally causes connected with menstruation, marriage and parturition have been alleged as giving rise to Ovarian dropsy. But these affections may be mere quite precedents not causes.

It is stated that the ovary most liable to be affected is the left. Mr. B. Cooper holds this opinion: He says— "Of fifty cases I find that eight had some malignant disease in some other part of the body: and that in thirteen both ovaries were affected and that the left ovary was more frequently affected than the right. It is stated on the other hand by Safford Lee that the right one is that which is most frequently attacked.

Symptoms:— In treating of the symptoms of the varieties of ovarian dropsy above mentioned, I shall first refer to the tumor in its early stage, while still it occupies the pelvis: and secondly when it has increased in size and ascended into the abdominal cavity.

In the early stage of its progress it may give rise to little or no inconvenience, passing generally through the first part of its growth without attracting any notice. In most cases indeed it happens that the

tumor, has gone through the first stage, has arisen into the cavity of the abdomen and become an abdominal tumor before the patient or her medical attendant is at all aware of its presence; and in the first instance the detection of the tumor may happen through mere accident, or from abdominal irritation being set up, or from local & constitutional signs of pregnancy supervening, so as to attract the attention of the patient or to cause an examination to be made of the part.

In general there are few or no symptoms that can make us at all sure of its presence during the early part of its development. Usually the first symptoms noticed are:— deep seated pain in one or both groins; a sense of weight, bearing down, or deep seated pain in the pelvic region, usually referred to one particular side or one particular spot in that region. After a while there is numbness complained of, or loss of sensation takes place in one of the limbs, corresponding to the side affected. The extremity becomes oedematous and congested, brought on by pressure made by the tumor on the sacral nerves and on the vessels within the pelvis; or the veins of the limb become enlarged or varicose, and piles are often found. The menstrual function may be regular and usually is, but men-

orrhagia or amenorrhoea may be present. The most common symptom is constipation, owing to pressure of the diseased ovary upon the rectum, causing pain and difficulty in defaecation, and producing by compression flatulency of the abdomen. The function of the Bladder may be interfered with causing a desire to evacuate the Bladder and sometimes difficulty in voiding the urine.

On examination at this stage you will usually be able to detect a fluctuating swelling of greater or less size between the rectum & vagina. It may be loose or moveable unless it has contracted adhesions through inflammation to the recto-vaginal cul-de-sac. It is during the first stage of its progress, -at the commencement of the disease, that the presence of the tumor in the pelvis is apt to give rise to the constitutional symptoms of pregnancy. The mammae may become sympathetically irritated; the stomach may be affected in the morning; there may be occasional syncope, though such complications are believed to be not at all common.

When the tumor has passed into the cavity of the abdomen it now becomes more apparent and it is when it has so increased that the practitioner

most frequently finds it. It may continue small, float about more or less freely in the abdominal cavity, but from change in its position gives rise to various symptoms. The Bladder may be drawn up, reduced in size, and unable to be distended, so as to give rise to frequent desire to make water. If the tumor occupies the entire abdomen it may press upon the Kidneys, suppression of urine may arise which diuretics fail to increase. Sympdnitis is a frequent complication when the tumor is of no great size, but as it enlarges and fills up the whole cavity of the abdomen, it pushes aside and displaces the flatulent intestine.

The abdominal tumors formed by ovarian dropsy are mentioned as sometimes slow in their growth taking months and in some instances years before they enlarge much. While in a few months they may increase so, as to fill and distend the whole abdomen

Oedema occurs in the lower extremities from compression on the veins of the abdomen, and as the tumor distends the abdominal parietes, its walls become of a tense and shining appearance, and large veins are seen scattered over its surface.

On making an examination through the abdominal walls you find a circumscribed moveable tumor, which may be traced as arising from one of the iliac regions; and when it thus can be distinctly traced it is an important sign; but in consequence of the tumor early stretching towards the mesial line, it is not always to be expected. When both ovaries are attacked as sometimes happens we may find them meeting towards the mesial line, and in most cases the line of contact can be distinctly traced.

On its surface it may present a smooth appearance; but in general if of a compound or multilocular character, the surface of the tumor is irregular and tuberous, arising from the projection into its cavity and from its walls of secondary and tertiary cysts. Sometimes such projecting portions feel fleshy, and on applying the hand over them fluctuation is much less distinctly perceived.

The degree of fluctuation varies according to circumstances; sometimes it is distinctly perceivable, indicating that the fluid is contained in one great cavity; while at other times it is indistinct leading us to the conclusion that it is contained in many. The walls of the tumor may be

very thick and distended; the contents may be gelatinous and semisolid - even in unilocular cysts, or from there being many cysts which are divided by strong septa - the fluctuation is prevented from being transmitted, so that the fluctuation is in such cases by no means well marked. There may be great diversity in the character of the fluctuation and much tact is required to be able to draw any inferences from it. Cysts are stated to exist sometimes where the fluctuation towards the circumference is very distinct, yet these may be composed of numerous small cysts.

The only difference that can be drawn between unilocular and multilocular cysts is the degree of fluctuation, it being much greater in general in the former than in the latter, while the surface of the latter is usually tuberose and unequal.

In some cases on placing the hand on the abdomen and moving the parietes with care you may distinguish a crepitation, or a sensation may be felt like that produced by the creaking of new leather. This is perceived only when adhesions have formed between the tumor and abdominal parietes; but adhesions may exist without the crepitation being present.

The Tumor is not essentially painful on pressure but is liable to become so from Inflammation taking place in its peritoneal covering or in its interior In some cases it may pass through all its stages of growth without adhesions to the neighbouring surfaces taking place from inflammatory action and then it may attain an enormous size, proving fatal from its enormous dimensions.

It does not interfere with the generative function for pregnancy has been known to occur during the presence of an ovarian dropsy. If the tumor is large and rises into the abdomen, no inconvenience may be experienced; but the tumor when small and contained in the pelvic cavity may give rise to great trouble during parturition and so impede labour as to endanger the life of both mother and child.

During the latter stages when the tumor has gained an unusual size and wholly fills up the abdomen, it gives rise to a series of constitutional symptoms by its mechanical pressure and interference with the functions of the different organs contained within the abdomen. It compresses by its growth in a more or less degree the intestines

stomach, liver, and kidneys, interfering with the process of assimilation and nutrition, and from its pressure upwards upon the diaphragm & thoracic organs gives rise to palpitation, dyspnoea, thus interfering with the functions of Respiration & Circulation. Frequently oedema and ascites are superadded; or inflammation and disorganisation of the tumor supervenes and as a consequence Hectic fever is set up thereby rapidly exhausting the powers of the patient and at last lead to a fatal termination.

Differential Diagnosis. — When the disease is situated within the pelvis it may be mistaken for Retroverted uterus, from which it is to be distinguished by careful examination through vagina and rectum, its gradual enlargement and by the use of the uterine sound which shows that the swelling is distinct from the uterus.

When the tumor is farther advanced and occupies the abdomen it may be confounded with other abdominal enlargements and is to be distinguished from :-

a. Pregnancy. It may be discriminated from pregnancy by the regularity of the menses; absence of marked areola and follicles;

but these are at times uncertain tests for the absence of pregnancy, and it is seen that in no way do they indicate satisfactorily the presence or absence of pregnancy, and it is only by careful examination per vaginam, in this way ascertaining the state of cervix uteri, the empty condition of uterus and also its size. By the absence of Ballottement; and at a latter period on auscultation the placental murmur & foetal heart may be heard, but a sound similar to the placental souffle has been heard in the enlarged vessels of ovarian tumors and it must not therefore be relied upon as a means of distinction. Besides also it must be remembered that the child may be dead, or Pregnancy may be complicated with enlargement of the ovaria. In some cases there is much difficulty in the diagnosis, and it may baffle the skill of the practitioner; but in such puzzling cases the best plan is to wait & time will settle the question.

Fluctuation of the tumor may be an indication of an ovarian cyst: but at the same time it should be remembered that, owing to dropsy of the Amnion, fluctuation, may be perceptible in the enlargement of pregnancy.

3. From Fibrous Tumors of the Uterus.-

There may sometimes arise difficulty in distinguishing ovarian dropsy from fibrous tumors of the uterus, and more especially when they have attained a large size, become pediculated, more or less moveable and occupy a part of the abdominal cavity. It is of much importance to distinguish the two carefully, our prognosis and treatment being governed accordingly. To quote the words of Dr. Simpson - "the prognosis for example is very different in ovarian dropsy, and in enlargement of the uterus from a large mass of fibrous tumor in its walls. I have found however no mistake to be more common in practice, than to suppose a tumor in the hypogastric or iliac region to be an enlarged and dropsical ovary, when it actually consisted of the other much less formidable disease - of a great mass of fibrous tumors in the uterine structures".

The signs by which we may discriminate between the two tumors are the following:- The growth of a fibrous tumor is much more slow, and is found usually first in the centre of the hypogastrium, while in ovarian tumors the growth is more rapid and the tumor is generally found at one side. We find a fibrous tumor harder & not possessed of fluctuation, nor does it cause so much constitutional disturbance as in Ovarian

dropsey. The shape of the uterus is also much altered. In fibrous tumors on examination of the uterus it is much altered, being generally elongated, though this is not always the case; the uterus feels heavy and is moveable with the tumor, and it may also be a little prolapsed if the tumor is not of great size. On Auscultation over a fibrous tumor a distinct bruit may be heard. One great means of diagnosis is the uterine sound, as by its use we can distinguish whether the tumor is connected with the walls of the uterus or is attached to separate and neighbouring organs. We may conclude that the tumor is uterine if on passing the sound into its cavity, it passes as it were into the morbid mass; that the tumor and uterus are inseparable, and that the movement of the sound is caused by moving the tumor through the abdomen. It may also be borne in mind that normally the ovary is situated posteriorly to the uterus. We may generally state that it is an ovarian tumor when the uterus is small and entirely separate from the tumor, the sound passing anteriorly to the tumor, and that it is moveable.

C. From Ascites. On examination we find in Ascites the swelling to be more diffuse, a greater degree of fluctuation, and on placing the patient in

various positions the fluid in ascites alters its position varying according to the movements of the patient, gravitating to the most dependent part; and the patient on lying down on her back, the fluid in ascites flattens out; but in Ovarian dropsy we have the tumor more circumscribed, not so fluctuating, and it remains unaltered whatever position the patient may assume. On percussion in the supine posture we have generally a tympanitic sound elicited in Ascites from the intestine floating on the top of the contained fluid, and dulness in the lumbar region from the fluid occupying that position, and on auscultation anteriorly borborygmi may be heard. In Ovarian tumors on the other hand we have dull sound on percussion anteriorly and from the tumor pressing the intestines backwards a clear sound is elicited in the lumbar region. Sometimes it happens that ascites and dropsy of the ovary may be combined so that there may be difficulty in distinguishing between the two: but generally the ovarian cyst can be detected floating in the surrounding liquid, and its attachment to one or other ovary may be made out; and it may be justifiable in some cases, as proposed by Dr Bennett to draw off a small quantity of the fluid by a fine trocar & canula and ascertain its nature.

D. From feculent matter of the colon:— A distended state of the abdomen from the presence of feces in the intestine is sometimes mistaken for Ovarian dropsy and difficulty may be experienced in distinguishing them, and cases are on record where the abdomen has been slit up for ovarian tumor and nothing found but air and feces. Accumulation of air also may simulate tumor of the ovary and this state occurs both in the married and unmarried and may be called spurious pregnancy. You have on percussion a means of diagnosis, the sound in the one case being hollow while in ovarian dropsy it is dull. By placing the patient under the influence of Chloroform the abdomen when distended by air will become perfectly flat.

E. From disease of the Omentum:— This is discriminated by its development and growth from above downwards.

Prognosis. In forming our opinion as to the probable course of ovarian dropsy we must be guided very much by the kind of tumor whether simple or compound. The simple cysts are by no means so malignant nor do so rapid in their growth as the compound cysts; and sometimes these simple cysts may entirely disappear either by the effect of nature or

removed by the interference of art. The compound on the other hand may pass slowly through their course and in some cases remain stationary for years, - proving hurtful merely from mechanical weight and pressure; but in other cases and in most instances they run their course with great rapidity passing through all their stages of developement within a few months, and even carry off the patient within a year. This kind rarely if ever disappears and ultimately leads to a fatal termination.

It is difficult to give a prognosis of a decided kind with regard to any individual case. If the tumor grows steadily, and suffers from repeated attacks of inflammation, it will not run a very protracted course. We must also consider in our prognosis the size of the tumor, its local condition and the constitution of the patient.

Treatment.

The treatment may be divided into Medical and Surgical.

A Medical:- Various remedies have been brought forward as a cure and as means of arrest in Ovarian dropsy and each have had their advocates, as -

purgatives, Diuretics, Scalagogues, Diaphoretics, and even emetics. Some allege that the antiphlogistic plan of treatment is efficacious in the early stage, and this mode of treatment is highly advocated by Dr. Ashwell who states "that he has found local bleeding by leeches followed by repeated blisters (kept on only for a few hours and succeeded by linseed poultices for several days, have not only retarded further growth, but even diminished the absolute bulk of some incipient ovarian tumors." At present the remedies principally held forth by British practitioners as useful and efficacious in resolving Ovarian collections, are, Iodine used internally and locally, Mercury, Aqua potassae, Muriate of Lime which was first proposed and employed by Dr. Hamilton. Each of these have had their supporters, and some of them are at present recommended by some practitioners. But while by medicines you have some influence over other tumors and swellings of the body you have none such over ovarian dropsy. Altogether medicines have as little effect in removing such ovarian tumors as they would have in removing a part of the Body. Burns states that "Medicine has as much power over these cystic tumors as it has over the configuration of the patients nose.

It is now the general opinion among Medical men

that medicines are fruitless in discussing or retarding such tumors, and that their use tends much to impair the constitution of the patient and thus cause the tumor to increase with greater rapidity, doing in fact more harm than good if persisted in.

You have sometimes cases published where it is alleged that dropsies of the ovaries have been removed by diuretics; but such is impossible, the interior of the cysts not being capable of absorption. By diuretics dropsy of the peritoneum may be removed, but not an Ovarian dropsy. If a cyst, as occasionally happens, communicate with the peritoneal cavity through perforations in its walls caused by ulceration you have the fluid secreted by the lining membrane of the cyst poured into the cavity of the peritoneum and in this way is removed by absorption.

Although the therapeutic means employed for the obliteration of ovarian cysts have as yet proved hopeless yet by suitable medical treatment directed to the complications that are liable to occur during the progress of this disease much may be done to relieve the sufferings of the patient and remove the inconveniences that usually the disease gives rise to.

The objects in the treatment by medicine therefore are,—

I. To keep the patient as near the standard of health

as possible, by suitable regimen, tonics, good supply of fresh air, and by avoiding everything that will cause irritation in the system and thus impair the patient's general health.

II. To avert or remove any morbid states of the abdominal or pelvic viscera which may excite the diseased ovary.

III. To prevent it from mechanically injuring neighbouring organs; and much good may be here done especially in such cases where the tumor is pedunculated and moveable in the abdominal cavity, by causing the patient to wear a bandage, and in this way to fix the tumor which affords much relief. In other cases where the tumor is in the pelvis, the whole or part of it, and by its pressure preventing the discharge of the rectum or bladder, relief may be at once afforded by pushing it above the brim of the pelvis.

IV. To keep down carefully all tendencies to congestion and inflammation in the ovary itself. Here we may do some good by the use of general or local bleeding and other antiphlogistic means when such inflammatory action is lighted up either in the substance or walls of the tumor. Such inflammatory attacks are liable to occur and by their occurrence give rise to serious symptoms.

V. To apply pressure to restrain growth by suitable compress & Bandage.

B. Surgical:- There are at present a number of proposals brought forward by different writers on this subject as to the surgical treatment of ovarian dropsy; some of the many surgical means being had recourse to only as a mode of palliating the disease while others are employed with the view of entirely removing and radically curing the malady. I shall not dwell upon all the means that have been used by surgical art for the cure of this disease, but shall treat more particularly of the methods that are more generally adopted mentioning some of the others in their turn.

1. Paracentesis or Tapping. This is the oldest method used for the removal of Ovarian dropsy, and it may be employed either as a temporary palliative or under the hope of producing a permanent and complete removal of the fluid. Generally the former indication is fulfilled and the latter seldom proves successful. It is now settled that the operation is justifiable; but there is some difference of opinion as to the time when it ought to be resorted to some alleging that it ought to be performed at an early period, and this practice is recommended by Dr. Blundell upon the principal that owing to the smallness of the secreting structure there is more likelihood of then preventing a further growth of the tumor. But as yet few cases are

recorded of success from this mode of procedure and altogether it is not recommendable. It is now generally affirmed by medical men that we ought to refrain from the operation of Tapping as long as possible, interfering only when from the growth and bulk of the tumor disagreeable symptoms are arising from the pressure of the Tumor on the neighbouring organs and thereby impeding the functions necessary for life. The treatment of Tapping is in most cases only a palliative; but it may be done with the hope of a permanent cure in cases of a unilocular cyst and when the fluid contained is limpid and serous, but such cases rarely happen. In cases of the multilocular variety, tapping is had recourse to only with a palliative effect, and even then when one or two only of the cysts are enlarged more than the others. In some cases when the cysts forming this variety of ovarian dropsy are small and all about the same size, the contents as very frequently happens being of a gelatinous consistence, then the operation may be considered useless.

Tapping in general gives relief only for a time the fluid reaccumulating in a very short period, necessitating the operation to be performed again & again, the intervals between each operation becoming less & less, until Inflammation is lighted up in the tumor or its peritoneal

investment and carries off the patient; or from the continual drain of fluid the patient dies exhausted. Tapping may be performed many times on the same patient without giving rise to any bad effects, and affording relief at the time. Enormous quantities of fluid may be removed at each tapping. As examples may be mentioned a case recorded in Good's study of Medicine; "There is a tomb Stone near Dafford in Kent erected to the memory of Ann Mumford daughter of John Mumford Esqre. of Sutton place which proceeds to tell us that "Her death was occasioned by a dropsy for which in the space of three years and ten months she was tapped one hundred & fifty five times. She died the 14th. May 1778 in the 23rd year of her age an example of patience, fortitude & resignation." A patient of Dr. Mead's is mentioned as being tapped 66 times in 67 months and had taken away 240 gallons of fluid.

But cases are recorded where larger quantities have been drawn off and the patient survived a longer time Dr. Martineau of Norwich tapped a patient 80 different times and drew off 6832 pints of fluid or 13 hogsheads. Dr Simpson states "that he has repeatedly seen above 4 gallons of fluid drawn off at a single tapping." The average result after tapping has been once had recourse to, is, that the patient dies within 3 or 4 years.

First tappings are not without danger and a considerable number of patients die after the performance of the operation for the first time.

The operation is a simple one and is performed by means of a simple trocar and canula. The mode is generally the following:— To place the patient in the upright position, resting on the edge of a chair or bed; the abdomen is encircled by a broad bandage which is crossed behind, or the ends of it are slit or perforated thus allowing the bandage to run, to be applied more easily & accurately, and exert a more complete compression. The ends are intrusted to an assistant for the purpose of drawing tightly from behind so as to keep up a necessary pressure as the fluid is evacuated; and a hole is cut in the bandage where the trocar is intended to be introduced. Lately Dr. Simpson has been in the habit of placing the patient in the horizontal posture while performing this operation, without the assistance of a compressing bandage and it has been found to answer as well. It is stated "that the patient suffers less from this mode of operating than by the former method by bandage". He says "The compression itself of the bandage amounts to a feeling of distress and suffering with some patients; and I have been strongly assured by those who have been tapped at different times in

both ways, that the absence of the bandage, combined with the horizontal posture were great advantages to them, as far as their feelings and comfort were concerned."

In performing tapping in this way, the patient lies on the side on which the ovarian tumor has originated which should at first be accurately determined, with the abdomen hanging over the edge of the bed. The patient being placed in the supine posture, Syncope & fainting is guarded against, and the parietes of the abdomen are allowed to compress the cyst by their own elasticity, and by the external pressure of the atmosphere. Subsequent to the operation a bandage may be placed round the abdomen, if its parietes are lax, and for the purpose of fixing the remaining mass of the tumor, which may be loose and moveable; but even this in most cases may be dispensed with.

The trocar is usually introduced in performing paracentesis in one of two situations, either in the course of the linea alba, or in the course of the linea semilunaris. It is of no consequence in what part you puncture, provided you do so at the most fluctuating point of the tumor, where the parietes are thin, and in the most dependent part of the cyst. In some cases after introducing the trocar it will be necessary to clear the

canula by means of a probe, owing to its becoming blocked up by thickened matter.

In puncturing the cyst of an ovarian dropsy there are certain cautions that must not be overlooked. 1st. To avoid wounding the urinary bladder; this being secured against by evacuating the organ previous to the operation. 2nd. The uterus being sometimes drawn upwards in front of the ovarian tumor it has been wounded by the trocar. This is avoided by the careful selection of the place of puncture. 3rd. Cases are mentioned where from the cyst being turned upon its axis the fallopian tube has stretched across the front of the diseased ovary, and the introduction of the trocar was accordingly rendered difficult. But this may be avoided by selecting a place which is not unequal nor condensed. 4th. From the enlarged state of the ovarian cyst, and its compression upon the surrounding textures of the abdomen, the vena cava may be pressed upon and the circulation through it interfered with, so that vicarious venous circulation may be in consequence set up through the superficial veins of the abdomen and thus they are greatly enlarged, even to the size of a goose quill or larger. In puncturing the cyst these must be avoided. Lastly. The Epigastric artery must

be remembered and care taken to feel the pulsating artery that it may not be punctured.

The dangers arising from the operation are:— a. That though in some cases a permanent cure may be obtained yet these are rare, and in by far the greater majority of cases the fluid rapidly accumulates, and the operation once performed requires repitition. b. The patient may sink from exhaustion after the cysts are emptied. c. The greatest danger to be apprehended after such an operation is that inflammation of the walls of the cyst or the peritoneum may supervene and thus lead to a fatal result.

The operation has been stated as sometimes leading to a permanent cure of the cystic tumor. Prof. Simpson believes that such may happen, and mentions a case that he has seen where this occurred. It seems to take place in cases where after puncturing the cyst the opening made by the trocar in the walls of the cyst does not become occluded, but remains permanently open, communicating freely with the peritoneal cavity, and thus the fluid secreted by the interior of the cyst is poured out into the cavity of the peritoneum and there absorbed.

Dr. Isaac Brown has lately recommended as a means of treatment Tapping with pressure so as to

restrain further growth of the tumor; and he has published several successful cases from this mode of treatment. His plan consists in applying pressure to the tumor after tapping by means of bandaging and accurate padding over the cyst and body generally: and the employment of medicines to stimulate the functions of the various abdominal organs in order to correct faulty secretion and to improve the health generally.

It has been proposed to treat ovarian dropsy by using means to obliterate the cyst by adhesive inflammation. Several expedients have at one time been tried, such as passing a seton through the walls of the cyst; tapping and leaving a tube or canula within the cavity through which the contents might be discharged (Le Dran; Houlston: Portal; Olesworth.) And lately it has been tried to decompose the fluid contained in the cyst by means of galvanic needles, and thus get rid of the fluid. The result of these plans are not so encouraging as to induce repitition.

Another plan of treatment with the view of obliterating the cyst or cysts by adhesive inflammation is that of injecting the cavity of the tumor with various stimulating fluids after tapping has been performed & the cyst emptied:

On the same principal of treatment as employed in the cure of hydrocele or dropsy of the Tunica vaginalis. For this purpose irritating solutions have been used as Sulphate of Zinc, Port wine &c. (Denman and Hamilton) but such practice was so disastrous as to lead to its abandonment.

Iodine was recommended first by Mr Martin in 1832 as a safe injection in cases of hydrocele, and now as such it is universally adopted, and used in the treatment of this local dropsy in the male. Latterly it has come into use in the cure of the other local dropsies and cysts; and past experience has shown that in some cases it may be successfully employed in the treatment of Ovarian dropsy.

It has been tried by Dr. Simpson in a number of cases and in some apparently with great success, no reaccumulation having taken place, while in others no benefit was derived from the treatment. There seems at all events to be no harm done if it should do no good, and there is no great amount of local pain nor constitutional irritation set up.

Dr. Simpson lastly comes to the conclusion "That accumulated experience will be required to point out more precisely the special varieties of ovarian dropsy most likely to benefit from Iodine injections, the proper time of operating.

the quantities of the tincture to be injected and other correlative points. Perhaps the want of success in some cases has arisen from an insufficient quantity of Iodine being used, and from the whole interior of the cyst not being touched by it. The greatest advantage would of course be expected from it in the rare form of unilocular ovarian cysts. In the common compound cyst, the largest or most preponderating cyst is usually alone opened in paracentesis; and though it were obliterated, it would not necessarily prevent some of the other smaller cysts from afterwards enlarging and developing into the usual aggravated form of disease."

In having recourse to this treatment recommended you will not, it seems succeed unless a pretty concentrated Tincture of Iodine be used, and the common Tincture of the Edinburgh pharmacopeia undiluted may be employed for the purpose. It seems that the Injecting of Iodine has the power of setting up an adhesive Inflammation of great power.

In injecting the fluid all that is required is the common Trocar and canula, emptying the cyst as much as possible and applying a syringe containing a few ounces of the Iodine Tincture. A glass syringe is

recommended as the best, and instead of using the piston it is preferable to force out the fluid by means of blowing strongly at the one end of it. After injecting you may keep your finger upon the tube for a little and then withdraw it, when sometimes a little may escape.

III. Another operation has been proposed by Blundell, Bambrigg, and Guerin. To make a subcutaneous incision into the ovarian cyst; or by removing a circular piece of the cyst, and thus cause the cyst to communicate with the peritoneum. In this way while the inner surface of the cyst is secreting the fluid, the surface of the peritoneum is absorbing it. Such a mode of treatment was proposed from seeing what sometimes takes place in cases where from some accident occurring to the patient, either from falls on the abdomen or from the patient being subjected to other injuries; the cyst is thereby ruptured into the cavity of the peritoneum and its contents thus absorbed. Repeated instances have been observed where by such accidents a cure has been obtained. It thus happens that nature thus spontaneously taps the tumor; the rupture depending either upon mechanical injury, over-distension of the walls of the cyst, or from inflammatory action being set up in the walls of the tumor. If an

ovarian cyst ruptures from mere distension or thinning of its walls, or from mechanical injury, and the fluid that escapes into the peritoneal sac has not been subjected to inflammatory action, but is of a mild unirritating character, then you have it readily absorbed and no serious results in consequence. But if previous to rupture the tumor has been the seat of inflammation or its rupture has depended upon the inflammation set up, causing softening of its tissues and consequently rupture, and its contents are mixed up with inflammatory secretion, its rupture into the peritoneal cavity is generally and in almost every case followed by serious consequences, fatal peritonitis being set up.

IV. It has been recommended by De Graw and Brown to allow the cyst to communicate with a mucous canal or skin.

Sometimes an ovarian cyst or tumor forming adhesions to the Intestine, Bladder, or urinary canals and rupturing into these mucous canals, or sometimes opening upon the free cutaneous surface of the Body, the fluid in this way if a free opening has been made and it remains patent, drains away, and the cavity of the cyst may in such cases diminish till it is perfectly shut up, and thus effect a permanent cure.

Some thus propose tapping the tumor through the vagina, Rectum or Bladder: but the objections to this mode of operating is that the largest cyst is superiorly & anteriorly and thus through we tap through any of these canals we do not in all cases nor readily reach nor empty the tumor. Dr. Buchannan of Glasgow has performed it through the base of the Bladder.

With regard to the spontaneous rupture of ovarian cysts I may be allowed to quote Dr. Simpsons recapitulations upon the subject in the form of the following conclusions

1. "The cysts forming an ovarian tumor occasionally rupture, first from inflammatory effusion into, and distention of their cavities; or secondarily the contents of the cysts being only the common bland secretions of such cysts and unmixed with any inflammatory matters they may rupture from mere over dilatation and gradual attenuation of their coats, or under sudden mechanical pressure and injury"

2. "When a cyst ruptures from the effects of inflammation, or contains within it at the time of rupture inflammatory secretions and materials, the escaping fluid if effused into the cavity of the peritoneum, is always liable to be followed by dangerous and generally fatal

peritonitis.

3. If however a cyst bursts into the peritoneum, under mechanical injury, or in consequence of simple laceration from over distention of its cavity, and the fluid effused into the sac of the peritoneum is not commixed with inflammatory secretion, there is little or no tendency to peritonitis

4. Sometimes indeed when a now-inflamed Ovarian cyst thus ruptures into the cavity of the peritoneum the life of the patient is preserved or at least prolonged by the accident.

5. When an Ovarian cyst ruptures into a mucous canal or upon the cutaneous surface, the safety or danger attendant on the laceration is not regulated by the inflamed or non-inflamed character of the effused fluid.

6. In cases in which the fluid of an ovarian cyst obtains an outlet by a mucous canal or by the skin, a temporary or more permanent reduction of the tumor and comparative cure of it may be the consequence.

Lastly. Let me add, as in many cases and points, the surgery of art is an imitation of the surgery of nature, possibly the artificial repetition and establishment of the above modes of relief if they could be imitated safely and certainly, may yet be found capable of temporary

arresting if not curing, Ovarian dropsies in some appropriate cases: and more particularly in instances in which the greater bulk of the tumor is formed by one original, large preponderating cyst, or by several cysts broken up and conjoined into one common cavity or cell."

V Excision of the diseased Ovary.

This may be looked upon as the last alternative and as the only means by which the disease can be radically cured.

Ovariotomy was performed by various surgeons of the preceding century as Bonetus, de Laporte: and it was considered by Vanderhaen as a doubtful operation: but it was opposed by Morgagni and Sabatier as impossible. L'Aumonier chief surgeon of the Rouen Hospital in 1782 seems to have first attempted extirpation of the diseased ovary and the operation proved successful. Since that time other practitioners have performed the operation with a favourable issue in some cases, and especially in America where it is stated that in 1809 Dr. Mc Dowell of Kentucky extirpated with full restoration to health a dropsical and otherwise diseased ovary. The operation was performed by Mr. Lizars of Edinburgh in 1823 and in 1826 by Dr. Granville of London. Since that time it has been practised on upwards of 118 patients with varying success.

Of those practitioners that advocate in favor of the operation may be mentioned Blundell, Lisiars, Warren, Dieffenbach, Clay, St dee, Attle, Smith and a number of others. While those on the opposite side are Bell, Listow, W. Hunter, and Seymour &c.

In operating there are two modes in which it is performed: The Major and Minor operations. In the former the abdomen is freely opened and the ovarian tumor is extirpated in its entire state. In the latter a smaller incision is made through the abdominal parietes, the tumor is evacuated by tapping, and immediately afterwards pulling it out in its empty and collapsed state, it is cut off as nearly as possible to its root. These two modes of operating have divided the operators into two classes; one class favoring the small, and the other the larger incision; and statistics have been brought forward to show that there is less mortality attending the small incision. By the small incision there are more difficulties to encounter and the operation is less easy of performance. There is danger of some fluid escaping and finding its way into the peritoneal cavity; there is impossibility of cleaning out the wound carefully; and there is imperfect deligation of the pedicle, which are all

objections to this mode of procedure. As advocates for the large incision may be mentioned Clay and Paine; and Mr Paine says "My reasons for preferring the operation by the large incision are these:— that it does not appear that a less extent of wound diminished the danger of the operation in any material degree; and that the complications which are occasionally presented, without being foreseen, in many instances, can be better appreciated and more suitably dealt with by the surgeon through a free opening than through a small one. For example, the effusion of Blood, or the escape of fluid from the cyst into the peritoneum either of which is a most dangerous complication of the difficulties inseparable from any method of operating, can with no certainty be aborded in the minor, but may assuredly be remedied if they occur in the major operation." Adhesions too can be divided, the parts can be cleaned, and arteries tied with facility, if necessary, and the operator's mind freed from doubt as to the state of the internal parts before he carefully closes the wound. These are circumstances which the experienced operator can appreciate, and if he should not be blinded by an undue appreciation of peritoneal inflammation he will be sure to estimate

highly such palpable advantages".

It seems that the incision should be proportioned to the size of the tumor and should vary according to the circumstances of each individual case.

With regard to the justifiableness of the operation it seems to be a legitimate one and is now more frequently performed than formerly, still there are some objections that are held up against it and of these the principal ones are stated to be.

I. It is attended with great danger & mortality. Though no doubt this is true yet it is stated to have less mortality than some other capital operations in surgery which are at present acknowledged. Of 80 cases mentioned by Cormack in which Ovariotomy had either been performed or attempted, 34 sunk or 4 in every 10 patients died. Out of 65 cases mentioned by the same author in which the operation had been perfected 25 died or between three & four out of every ten patients were lost.

Malcaigne has shown that out of 852 cases of amputations of the extremities of all kinds (including those of the fingers and toes) which were performed in the parisian Hospitals from 1836 to 1841, 332 died or about 4 out of every 10 proved fatal.

Among those out of 201 Amputations of the Thigh 126 died or about 6 in every 10: out of 192 Amputations of the Leg 106 died or 5½ in every 10: out of 91 Amputations of the Arm 41 died or 4½ in every 10.

Of the Amputations of the Thigh, in 146 cases the operation was performed for severe injury of the limb: of these 34 died or more than 4 out of every 10.

At Glasgow Infirmary the mortality in cases of Amputation is mentioned as 4 in every 10 and at Edinburgh Infirmary 5 in every 10.

Mr. Philips has collected the histories of 171 cases in which the large arteries were tied: of these 57 died or about 3½ in every 10. Sir. A. Cooper in his work on hernia records 36 deaths among 77 operations for that disease or nearly 5 in every 10 died.

There seems therefore to be as great a mortality in other operations in Surgery as in Ovariotomy, and this argument against its performance is at once thrown to the ground.

2. It has been brought forward as another argument and objection against the operation "that the ultimate results are unfavourable and the return of the disease not prevented."

With regard to the mortality of Ovariotomy it is

stated 1 patient dies to three recoveries; but some then say "what becomes of these three?" And others state that most of the reports of cases have been published with too great haste and before the ultimate results could be fully known months and years afterwards. But some practitioners have kindly laid before the world the result of their operations years afterwards and shewn that at least in their practice the patient's life has been in no way compromised, but on the other hand they are enjoying life and some have even so recovered as to be the mothers of children. In 1845 Dr. Clay of Manchester states in a note to Dr. Simpson the result of all his successful cases, "and all are seemingly continuing well some even enjoying more comfort and at all events better health, than during any part of their former life." Dr. Clay also informed Mr. Safford Lee "that all his successful cases are now living and are much better now than when he operated." In 1846 Dr. J. Bird states "That he has had one unsuccessful case and that all his other cases are doing well". And Mr Lane has stated like results as to his cases of Extirpation. A case is mentioned by Emeliani 1816 "where he had operated on a patient and who had since been the mother of 5 children" which shows that the cure is most complete.

It has been shown however that if this Argument

holds good with regard to ovariotomy - it holds with equal effect in regard to other capital operations, and that not unfrequently patients recover from such operations, as Aneurism, Stone, Cancer, Amputations &c. with very imperfect health, and may never recover from the effects of the operation. But these arguments as far as has been seen do not hold in reality with regard to ovariotomy, but that patients who recover the more immediate effects of the operation, retain and enjoy life as long as if they had never been subjected to it.

As to the disease returning this in no instance has occurred. If the other ovary is diseased or affected with cystic degeneration no doubt if allowed to remain it may spring up, but if removed at the same time the other one is extirpated the disease will be wholly eradicated and never return. In operations for stone how often does it happen that the same patient undergoes the operation more than once owing to the recurrence of the stone in the Bladder, but in no instance when once the diseased ovary is entirely removed does ovarian dropsy recur. Other operations in surgery might be mentioned as in cancer where patients are subjected to the risks of operations when it is well known

that the disease will recur and ultimately carry off the patient while if allowed to remain he might enjoy comparative comfort for years, and not run the risk of sinking from the effects of such an operation.

3. It is said that the disease is not so dangerous and urgent as to require such an operation.

There are many operations also which the surgeon performs, a disease which at the time is producing no urgent symptoms, and not at all interfering with the comfort of the patient as Lithotomy: operations for Aneurisms, Cancer &c. &c. While in ovarian dropsy we do not interfere until the tumor is pressing upon neighbouring organs and giving rise to a series of constitutional symptoms that will ultimately and in no long time lead to intense suffering and ultimately carry off the patient. As long as the disease remains latent it is not recommendable to interfere, but when once it produces such inconvenience, and its growth is rapidly progressing, then it is, that we seek to extirpate the tumor.

4. It has been alleged that we are liable to make mistakes from diagnosis; and that from adhesions the operation is sometimes rendered impossible.

There is no doubt that from imperfect diagnosis

the operation is thereby rendered more difficult but it must be considered that the means of diagnosis is improving and much of late has been done by which our discrimination of such tumors are rendered more perfect, as the exploring needle, uterine sound, &c.. The greatest difficulty that at present attends the performance of the operation is that of discovering the existence of adhesions which these tumors have formed, and if such means were once obtained by which we could detect these adhesions and their extent, one of the greatest drawbacks to the operation would be removed. Still this is no argument against its performance and Dr Clay thinks the extent of adhesions a matter of no consequence by the long incision; and besides we see as great difficulties of diagnosis in surgical operations as in trephining for effused blood, removing schirrous mammae; and in removal of limbs for supposed Scrofulous disease, but which are afterwards discovered to be mere hysterical affections. In cases of Hernia it is often difficult to return the bowel in consequence of extensive adhesions, or other causes.

If the argument is brought up against the performance of Ovariotomy it may equally be

considered an objection to some of the recognised operations in Surgery.

There are no doubt certain cases in which it would be unjustifiable, and such cases have occurred, where the operation has been performed; but in cases where the disease is rapidly gaining ground, interfering with important organs, all other palliating means having failed, and the diagnosis satisfactorily made out, then there can be no grounds for objecting to the operation, as the only means of giving the patient a chance of life, viz. the excision of the tumor; and this operation may be undertaken on grounds as legitimate as other operations in Surgery.

The means or methods of operating are still somewhat faulty, from the irritation set up by the ligature used in tying the stalk of the tumor; but as the operation becomes more generally recognised, means may be found out, seeing experience always works out such improvements of securing the large vessels of the pedicle by some more simple method and thereby avoiding one of the dangers that arises in the operation.

Patrick Rankin.

(56.)

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