"Inversion of the Uterus, with a modification of the Operative treatment, in chronic cases requiring amputation"

While choosing the above title for this thesis I do not wish it to be thought that I favor amputation of every chronically inverted uterus. I am entirely at one with most writers on this subject that amputation is an operation seldom required but perhaps too frequently done. We cannot be blind to the fact that such cases do occasionally come under treatment. A case of this sort, where amputation was necessary, came under my care in New Zealand while practicing there with my brother Dr. W.

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W. Christie.

Amputation is a form of treatment which one would not willingly undertake until all other methods had been tried and had failed.

By the term "inversion of the uterus" we mean a turning inside out of that organ. This turning inside out may be either I Partial, or II Complete.

I In Partial Inversion we may have simply a depression of the fundus uteri. This may be of any depth, from a mere dimple to a deep depression coming down to, but not through, the os externum

II In Complete Inversion the body of the uterus comes out through the os externum into the vagina, or if the vagina also is inverted it may lie

between the thighs. The above classes may again be sub-divided into the two varieties (a) Acute and (b) Chronic. The acute variety is that more often met with immediately after childbirth, or during the puerperal condition.

Before the uterus will invert certain conditions must be present. These are:-

1st Relaxation and Inertia of the walls of the uterus. A uterus, the walls of which are in a healthy state and the tone of the organ good, might possibly prolapse but could not possibly invert.

2nd Some downward traction or pressure to start the inversion. If there was nothing of this sort acting on the uterus even although there was

relaxation or inertia of the walls it is inconceivable that the organ moved of its own accord inverted. The causes of relaxation of the uterine wall are:-

(a) Placental adhesions

(b) Haemorrhage

(c) Parturition

(a) Placental adhesions give rise to relaxation & dragging on the part of the uterine wall to which they are attached. The other parts of the wall can contract and the muscular fibres retract but at the point of attachment of the placental adhesion this is impossible. Haemorrhage also goes on through this adherent portion of the placenta.

(b) Haemorrhage acts by reducing the general tone of the whole

muscular system. The uterus along with all other muscular tissue of the body loses tone and becomes relaxed.

(c) Parturition. Here we have the uterus contracting regularly and engorged with blood. This strain on the muscular fibres, if excessive, may over distend some of them so that after parturition retraction may not go on properly. The tone of the organ thus becomes lost and the walls relaxed. All that is required after relaxation is present is some downward force to start the process of inversion

Dr. MacNaughton Jones says*:-

"The essential condition - as it always is the predisposing element - in inversion, is

* "Diseases of Women and Uterine therapeutics" London 1884. p 208 Dr. MacNaughton Jones.

an atonic state of the uterine parenchyma, favoring relaxation of the muscular fibres. This leads to partial prolapse of a portion of the uterine wall, and is associated with an irregular contraction of the surrounding muscular tissue. The prolapsed portion is treated by the uterus as a foreign body, like a piece of placenta, or the hand; it excites contractions which end in the expulsion of the part or the entire of the fundus. This view (Rokitansky) is not inconsistent with the possible and occasional origin of the inversion at the cervix uteri (Taylor and Klob), which is inverted and protrudes into the vagina."

This statement simply bears out what I have already said,

that it is necessary before inversion can occur to have (a) Relaxation and inertia of the uterine wall and (b) Downward traction or pressure. The pressure, according to the above statement of MacNaughton Jones, is the uterine contraction.

A common starting point of inversion is the presence of tumours, more especially myomata, either polypoid or sessile, and, if lying near the fundus. Sarcomata also start it but not so frequently. This may be accounted for by the fact that (a) Sarcomata of the body of the uterus are not at all common; (b) Sarcomata cause thickening of the wall whereas myomata, especially sessile, thin it out. The weight of a myoma, especially if sessile, helps to pull the

thinned out wall inwards and thus start the process. Once it is started the other parts of the wall press this thin part downwards.

I am sorry, that from personal experience, I cannot agree with Winckel that traction on a polypus does not cause inversion. I have seen a case, in fact was present at the time, where a slight partial inversion was caused by a surgeon pulling on such a growth. I do not say that such a thing ought to have occurred had the surgeon been more dexterous but the fact that it may happen I will always believe.

In the case of adherent placenta causing inversion we have often several factors at work.

we have the weight of the placenta, adherent perhaps to one part of the uterine wall, and dragging it inwards; then we have the uterine contractions tending to push this part of the wall still further in. If we add to these some ignorant person dragging on the funis then the only wonder is that inversion does not occur in all these cases.

If the uterus is in a state of relaxation a very slight cause is often sufficient to start the process of inversion. Such exciting cause as violent exertion, severe coughing, changing posture &c may be the starting point.

There are three views as to the mode in which inversion proceeds, after the requisite

factors have come into play:-*

1st "That some part of the relaxed body prolapses, and, passing out of the cervix, drags the entire uterine body with it."

2nd "That some part of the relaxed body prolapsing, acts as an excitant of uterine contraction, which forces the remaining portion through the cervix, and thus inverts the whole organ"

3rd "That lateral traction and direct pressure on a cervix, the tissue of which is abnormally soft, causes eversion of this part and gradually of the whole uterus"

With regard to the first of

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*"A Practical treatise on the Diseases of Women." T. Gaillard Thomas M.D., LL.D. Sixth Edition. Lond. 1891 p. 443

these views it is apparent that before such a thing could happen the degree of relaxation must be very great and the os uteri must be very patent. One would also expect to find the uterine body Enlarged.
The second seems to me to be the one most likely to occur.
Looking at the third, one would not expect to get complete inversion in such a case. Partial inversion would be quite probable but I consider that the direct pressure would require to be very great before inversion would become complete.
The Symptoms which one would Expect to get in a chronic case are:—
1st. Occasional or constant haemorrhage. This takes place from

the everted Endometrium. This everted membrane gets thickened and hyperaemic at parts. The fine capillaries get dilated, their walls thinned and brittle as in chronic Endometritis. Any friction or increased capillary tension on this surface causes these vessels to give way and haemorrhage to ensue. There is also erosion at various points on this membrane and haemorrhage takes place from these areas. During the menstrual period the haemorrhage is often worse, as at that time the whole membrane is in an hyperaemic condition.

2nd Dragging pain in the back and loins. One has only to look at the arrangement of the uterine ligaments, and to see how they will be dragged upon when

the organ inverts to appreciate the cause of this symptom. In some cases, more especially I should say in puerperal cases, the Fallopian tubes and ovaries are dragged with the broad ligaments into the cul-de-sac formed by the inverted uterus.

3rd Difficulty in locomotion. This arises partly from the pain in the back and loins, and partly from the pressure of the tumour in the vagina, or even external to it. If external to the vagina the tender surface of the uterus gets rubbed when the patient attempts to walk.

4th Difficulty in defacation and micturition. This arises from the uterus pressing on the lower part of the

rectum, and also forwards on to the urethra and lower part of the bladder. By this forward pressure it may give rise to irritability of that viscus, and cause frequent micturition accompanied with the difficulty of emptying the bladder.

5th Anaemia and its accompanying evils. I think it better to class these together as it would be an unnecessary task to detail them all. Anaemia is caused partly by the menorrhagia and metrorrhagia, from the eroded and hyperaemic secreted endometrium. It is also caused by the difficulty in defecation. The rectum does not get properly emptied, and absorption taking place from this

tends to aid the anaemic conditions.

Diagnosis. Having got the history of the case and the symptoms, the Examination will probably reveal the following:-

(a) On Vaginal Examination a firm body will be found lying in the vagina. This body will feel of an elastic nature and when handled will probably bleed. We may detect the orifices of the Fallopian tubes.

(b) On Conjoined Examination we should detect through the abdominal wall a ring where the body of the uterus should be. This is the orifice of the funnel shaped inverted portion.

(c) On Examination per rectum the uterus is absent from

its usual position

(D) Recto-vesical Examination will fail to reveal the uterus in its usual position

(E) On attempting to pass the uterine sound it will be arrested at the neck

(F) On Examination by the Speculum a dark red body with an Eroded surface is seen in the vagina.

(G) Acupuncture will give pain.

It is possible, and has happened, that the inverted uterus may be mistaken for either (A) a polypus (B) a fibroid growth or (C) cancer.

If the inversion is complete, a polypus is the only thing one might possibly mistake it for after careful Examination per vaginam.

If, however, the case we have was one of polypus the

following points would aid us in differential diagnosis:-

(a) Conjoined Examination will reveal the uterus in place

(b) Rectal Examination will reveal the uterus in situ.

(c) Recto-vesical Examination will reveal the uterus

(d) The uterine sound will usually pass by the side of the polypus into the uterus

(e) Acupuncture into the body of a polypus will give no pain.

If the case presented to us is one of partial inversion then the diagnosis becomes more difficult. Here we must differentiate between a fibroid growth and the partial inversion. The following points in diagnosis will usually make this clear:-

If a partial Invasion —

(a) On passing the uterine sound the cavity will be shortened on account of the fundus sinking inwards and thus filling it up.

(2) On recto-vaginal Examination a small ring may be felt where the fundus uteri ought to be.

(c) Acupuncture will give pain

(d) History of the case will bring out that the onset was more sudden than in fibroid growth

(e) Usually follows parturition

If fibroid Growth —

(a) Uterine sound will probably show an increase in the length of the uterine cavity.

(b) On recto-vaginal Examination the round and probably Enlarged body of the uterus will be felt in its usual position.

(c) Acupuncture usually painless
(d) The history of the case will probably bring out that the onset was gradual
(E) Has no reference to parturition

I think the foregoing will make the diagnosis clear. The next thing we have to consider is the Treatment. This can be divided into three classes I Palliative, II Taxis and Pressure and III Amputation. It is upon the last of these methods that I wish to make me a few suggestions. Before going on to that, however, I think it would be advisable to glance shortly at the two preceeding classes, as it is under one

or other of these that most cases will fall. The number of cases which will come into the last class will in all probability be very small.

I Palliative. If reduction fails the question which naturally comes to me is, are we to amputate or to leave the uterus alone? If we decide to leave it there are certain things which we will most probably have to contend against. These are — (a) Haemorrhage, (b) Dragging on the ligaments, (c) the mechanical inconvenience of a tumour in the vagina. We must take the age of our patient into consideration. If she is near the menopause there

evils may diminish by atrophy of the organ and the cessation of menstruation. The following methods of treatment have been suggested, with the underlying idea of getting the ulcerated Endometrium into a thickened and tough condition so as to reduce the haemorrhage, and, if possible, cause the organ to atrophy. The amount of success attainable by these methods is, I am afraid, very much open to doubt. The surface of the organ may be covered with any of the following. Alum, Tannin, Iron persulphate, Lead acetate &c. Applying Solid Silver Nitrate to the whole bleeding surface, or even applying the actual

cautery has been suggested. I think some one has gone the length of suggesting the application of mineral acids, followed by a neutralizing alkaline bath. This treatment I think is perhaps just a little heroic.

II Taxis & Pressure are the methods usually employed first of all in the treatment of inversion. They usually succeed if persevered in and carried out carefully. Most cases of reduction are effected within a short time after parturition, but, of course, this is not always the case.

There are two methods of reduction (1) Gradual and (2) Rapid.

As methods of Effecting

Gradual Reduction I might mention.

(a) Elastic pressure by vaginal stem and cup, or bulb.

(b) Elastic pressure by vaginal water bags combined with tapis.

(c) Elastic pressure by vaginal water bags alone.

(d) Stream of cold water.

We will now look shortly at Each of these different methods.

(a) Elastic pressure by vaginal stem and cup, or bulb. Before using this it is necessary to relax the cervical parenchyma or render its resistance less decided. This can be done by means of drugs such as Belladonna. In using this it is advisable to employ vaginal injections of the infusion, also to smear the Ung. Belladonnae round

the cervix, and give it both hypodermically and in the form of suppositories. Another method of reducing the resistance is to make two or three longitudinal incisions through the parenchyma of the cervix. In using the stem and cup repositor counter pressure is necessary otherwise the uterus might get ruptured at its junction with the vagina, also, a certain amount of the force exerted would be lost. This counter pressure is best applied in the form of a pad across the hypogastrium, extending from one anterior superior spinous process of the ilium, to the other, and lying just above the symphysis pubis.

This ought to be fixed in place by a strap of adhesive plaster round the patient's body. Continuous Elastic pressure is, however, not without its dangers. There have been several cases where this method of treatment has caused fatal peri-tonitis. Another danger in the use of this is the doubling up of the uterus upon itself and thus setting up an inflammation of the uterine tissue. This is only likely to occur if the vagina is large, and it can be prevent-ed by the introduction of tampons around the body of the uterus.

(b) Elastic Pressure by Vaginal

water bags combined with Taxis. In this method a dilatable rubber bag is placed in the vagina, and either air or water pumped in. This is used until the uterine parenchyma is relaxed. It may then be removed, and reduction by one of the various methods of taxis tried.

(c) Elastic Pressure by Vaginal water bags alone. In this method, as in the previous one, a dilatable rubber bag is placed in the vagina. It is fixed in position by a strap of adhesive plaster passing round over the vaginal orifice. This strap ought to have a hole cut in it for the

urethra. The bag should now be dilated by the introduction of either air or water. Before using the bag the bowels ought to be well cleared out by mild cathartics. After the bag is in place and dilated they ought to be kept constipated. If the pain is severe it is advisable to give opium. This also helps to reduce the resistance to replacement offered by the tissues.

It is very difficult, in fact is not possible to say how long elastic pressure ought to be kept up. This depends entirely on the patient. If she is unable to stand it then it is advisable to

use rapid reduction.

(d) Stream of cold water. This method consists in syringing twice daily with ice cold water, through a Speculum, and then immersing the uterus for three or four minutes in the cold water. If there is much pain this can often be relieved by ice over the lower part of the abdomen.

2. Rapid Reduction by Taxis. Manipulation for rapid reduction is carried on by various methods. Some gynaecologists approve of reducing first the part which came down last, while others dimple the fundus and push it inwards thus making

it act like a wedge on the constricted neck. The various methods which have been advocated usually differ only in the mode of holding the uterus and in the direction of the pressure employed. I will mention one or two of the many methods which have been suggested.

Tates Methods. This consists in introducing one index finger into the bladder and the other into the rectum. The abdominal ring is fixed by these. The two thumbs are introduced into the vagina and apply the pressure to the inverted fundus. The two index fingers

act by applying counter pressure at the abdominal ring.
This method seems very good, but there is the great danger of injury to the urethra or bladder.
Some reposition are very good and might be tried with some hope of success. Awkings and Byrnes seem to be the forms most favored. If unsuccessful in using this it is advisable to dilate with the vaginal rubber bag for 36 or 48 hours, and then make another trial. It may be possible to reduce a complete to an incomplete inversion, in which case it is advisable

to stitch up the cervical opening with a silver suture as Emmet does and so prevent the uterus from coming down again.

Thomas' Method This consists in abdominal section over the cervical ring. A steel instrument after the pattern of a glove stretcher is then introduced and the ring dilated. After dilating sufficiently an attempt at reduction is made. This method of Thomas' is put forward as a substitute for amputation, and is certainly worth a trial, if other methods have failed, before proceeding to the graver operation.

III. Amputation. If all available methods have been tried without success, if the symptoms are such as to cause alarm, or to make life a burden, and if, in addition, the patient is not near the menopause, then I consider that amputation is justifiable. The objections which are put forward to it, according to Thomas, are:-*

(1) "Hernia of pelvic or abdominal viscera may have taken place into the abdominal sac"

(2) "It frequently produces Emansio-mensium and its train of evils"

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* "A Practical Treatise on the Diseases of Women". T. Gaillard Thomas, M.D., LL.D., Sixth Edition. London 1891 p.

(3) "It necessarily results in sterility"

Let us look at these objections singly before proceeding further.

(1) I quite grant that in the method which is now in use such a thing is not at all unlikely. I consider that the operation as practised at the present day is a most unsurgical procedure. Any surgeon who, by means of the Elastic band, the Ecraseur, or in any other way, removes an inverted uterus without making sure that there is no-thing prolapsed into the sac, is guilty of gross carelessness. Later on in this thesis I will describe a method of

guarding against this.

(2) This in the method I am about to describe is also guarded against, as one of the steps in the operation is the removal of the ovaries.

(3) The fact that removal of the inverted uterus must necessarily in sterility all will agree to, hence I consider it safer, such being the case to remove the ovaries and thus guard against objection.

2. I have another reason for removing the ovaries. There is a case on record (although unfortunately at present I cannot find the reference) where impregnation took place in the stump of an ~~[illegible]~~ amputated uterus.

Let us now look at the

different methods which have been advocated for amputating the uterus.

The danger in using the knife or ecraseur is haemorrhage from the soft. atonic tissue of the uterus. * Mc Clintock advises a strong ligature round the uterus two or three days before the operation so as to avoid this if possible. † Hegar and Kaltenbach pass silk or wire sutures through the cervix, high up, and draw them tight so as to constrict all vessels and completely close the peritoneal

* "a Practical treatise on the diseases of Women" T. Gaillard Thomas M.D. Sixth Edit. Land. 1891 p 461

† Hegar and Kaltenbach Op. Gyn. p 279 quoted from Thomas "a practical treatise on the diseases of Women" p 461

cavity. This idea is good, but what if a piece of the bowel has prolapsed into the inverted sac? Coutz uses an india rubber band passed round the uterus, high up. This is tightened on the second day, and gradually constricts the uterus in such a way that the blood supply to the inferior part being shut off, this sloughs away, from the twelfth to the fourteenth day. During the time this is on it is necessary to use anti-septic vaginal douches. Then after the separation is completed, what about any opening into the peritoneal cavity direct from this sloughy mass?

Is there not a good chance of infection of the cavity? I think so.

The following table by T. West- from* Thomas may be useful

		Recovered.	Died	abandoned Operation
Uterus removed by ligature	45	33	10	2
Uterus removed by knife or ecraseur	5	3	2	
Uterus removed by knife or Ecraseur preceeded by ligature	9	6	3	
	59	42	15	2

Here we have an average mortality of 22·2%, 40%, and 33·3% respectively with the three methods. Unfortunately the cause of death is not given in those cases, but I should think that in the second method with a mortality-

*"A practical Treatise on the Diseases of Women" T. Gaillard Thomas M.D. Sixth Edit. Lond 1891 p 461

of 40% haemorrhage must have been the cause of death in several cases Again Thomas says,* — "In an elaborate report of cases of inversion given in the American Journal of Obstetrics" for August 1868, the results in 38 cases of amputation are given. By this statement it will be seen that nearly one-third of all operated upon died; and let it not be forgotten that this number died, not in being cured, not in an effort, even, at attaining perfect health, but in an attempt at purchasing immunity from a series of dangerous

* "A practical Treatise on the diseases of Women" T. Gaillard Thomas M.D. Sixth Edit. London 1891 p 457

and annoying symptoms at the price of that of which Hippocrates says, "Propter uterum est mulier" This is taken from the latest edition of Thomas' book and yet he quotes a journal published in 1868, in which, probably, the cases referred to went back to Early in the Century. I trust he does not wish us to infer that because one-third of all operated upon during that period died such is likely to be the case now in the days of aseptic surgery. How many Examples could be given of major operations which now have a very small mortality, but which prior to 1868 had

a much larger one than 33.3%? I should say a very considerable number could be shown. Yet Dr. Thomas wishes us to accept those statistics drawn from preantiseptic days as a basis for the results we may expect under modern conditions. Dr. Thomas also acknowledges that the operation was done in "an attempt at purchasing immunity from a series of dangerous and annoying symptoms." If all other methods have failed, and the symptoms are not only "annoying" but "dangerous" is it not our duty to remove these dangerous symptoms? I consider it is, if in doing so we do not

Expose our patient to too much risk, and I consider that the method I am about to describe brings that risk down to a very small one. Perhaps my best course would be to give a short sketch of the history of the case I had under my care.

Mrs R. aet 32. Housewife. Residing in Taranaki, New Zealand. Father alive and well. Mother died aet 27 "in childbirth." One older sister died in infancy of whooping cough. Five younger step sisters alive and well. Two brothers alive and well. When six years old had measles from which she made a good recovery. Since then had good health

until beginning of present illness ten years ago. Menstruation began when about 13 years old and was always regular until 10 years ago. Married when she was 19. About four months after marriage had a miscarriage. Three years later had a full term child, alive, but subject to epileptic fits. For about two months after the birth of the child she suffered from weakness. She however was able to nurse her child. The lochia continued rather longer than normal. She could not say how long. About three months after the birth of the child she felt something suddenly "come down" into the vagina.

There was no faintness or sickness when this took place, but there was pain in both groins shortly afterwards. At times she suffered severely from pain in the lumbar region. A few days later haemorrhage started, with frequently stringy clots of blood. This gradually got worse. She suffered very much also from leucorrhoea. About a week later a doctor was called in. She says he told her that her "womb was down." He administered an anaesthetic and evidently tried to replace it. He told her it "would not go back." She was at this time living back in the

bush in Australia and could not afford to have him back. He ordered her vaginal injections. About two years later she came across to New Zealand. From the beginning of her illness until she first came under treatment in New Plymouth she had been suffering very much from pain and progressive weakness. During the menstrual periods she always lost a considerable quantity of blood. At these times also, to use her own words, "I get bilious turns for about a week when I vomit up everything I take" Constipation was not marked nor was there any pain or frequency

in nutrition. She, however, suffered much from head-aches, ringing in the Ears, and, on the slightest Exertion palpitation of the heart and fainting. For the last year she has been almost a chronic invalid, trying to do her house work one day, and then having to lie in bed for the next two or three.

Physical Examination. Lungs. There is nothing abnormal to be detected. Heart. Sounds soft with haemic murmur. "Bruit-de-diable" marked in veins of neck. Liver normal. Urine normal. Oedema of feet at times. Greenish complexion. Mucous surfaces very pale. Examination per vaginam revealed firm Elastic

tumour in the vagina, bleeding easily on being handled. Recto-vaginal Examination showed the uterus absent from its normal position, also a ring where the uterus ought to be. Uterine Sound is arrested at the neck. Recto-vesical Examination did not reveal the uterus in situ. Acupuncture gave pain. The orifices of the Fallopian tubes could be distinctly felt. By Speculum a dark red mass with an Eroded Surface is seen lying in the vagina.

Treatment was started early in January 1896. Tapis was tried on several occasions with patient anaesthetised, sometimes with Chloroform, sometimes with Ether.

Continuous Elastic pressure was used on two occasions, once about 20th January and again about 20th February. This was borne very badly. Patient complained much of the pain also of sickness and vomiting. On Each occasion it was kept in for over 36 hours. Before using any of the methods the usual preparations were made such as giving Cathartics and Enemata, using the hot vaginal douche, administration of Belladonna T.T.D. Rest was insisted upon. Tonic was tried also immediately after the menstrual periods. Pressure by vaginal tampons was tried on two occasions

for three and five days respectively. Ergot was given and iron tonics to combat the anaemia. All available methods having failed and seeing that the patient was getting weaker amputation was decided upon. This was in July of the same year. On 23rd July patient was put under the influence of chloroform, the usual precautions having been taken to render the skin of the abdomen aseptic. An incision about 3½" long was made through the abdominal wall above the symphysis pubis. A hand was introduced and the funnel shaped portion of the inverted uterus examined. An attempt

was now made to dilate this part after Thomas' method. The instrument used was a Sims three bladed uterine dilator. After dilating as far as was considered safe, the abdominal ring was fixed, by my brother, inside the abdominal cavity while I attempted by taxis to reduce the inversion. The process of dilating was very difficult on account of the hard resisting nature of the uterus. Several attempts were made at reduction but failed. The next step in the operation was the sealing up of the funnel shaped orifice of the inverted uterus. This I took upon as necessary, and as an

improvement upon any other method, which has been described, for doing this operation. This was closed by making the inner surfaces of the ring raw. These raw surfaces were then brought together and stitched with aseptic silk so that union might take place between them more quickly. After this both ovaries were removed and the abdominal wound closed in the usual way. A dressing of Sal. alembroth gauze was applied after dusting the wound with Iod. -oform and Boracic powder. The patient was now put to bed. No trouble was experienced with the after treatment and progress

was very satisfactory.
On August 4th the second part of the operation was carried out, it being concluded that the opposing surfaces of the abdominal ring would now be firmly united. The patient being again placed under chloroform the vagina was well washed out with soap and water, followed by irrigation with Creolin Solution ℥i to ℔i. The red, eroded, surface of the uterus was curetted with a sharp curette to remove the everted endometrium. This was again thoroughly washed with antiseptics. A Bozemann Speculum was introduced into the vagina and the uterus pulled down

by a vulsellum. A row of stout, silk, interlocking sutures was now put in across the neck of the uterus, drawn tight, and tied. Below this, i.e. nearer the inverted fundus, a "V" shaped incision was made into the uterus with the apex of the "V" upwards. One incision was made on the anterior surface and one on the posterior and the body separated. The two lips of this were now placed together and sutured. There was no haemorrhage. The vagina was well washed out with Sol. Hydrarg. perchlor (1 in 2000), the wound dusted with Iodoform and Boracic

and the vagina packed with Iodoform gauze. The gauze was removed every 24 hours, the vagina syringed out, and re-packed. About the tenth day the sutures were removed and the patient made an uninterrupted recovery. She was discharged from the Hospital on the 27th Aug. I saw her several times between then and April of this year. She was able to go about her house and do her work without any inconvenience or pain. Her color had improved and her general condition when last I saw her (March 1897) was good. She did not have any

of her old symptoms. Instead of requiring to lie in bed more than half her time she was able to act as gatekeeper at a place about two miles out of town. From there she used frequently to walk into the township and back.

The points I wish to claim for this method of operating, in preference to other methods which have been suggested and used are:—

1st. By performing abdominal section first, and dilating the abdominal ring, another chance of reduction is given, before resorting to amputation.

2nd. (a) By sealing up the Entrance to the Cul-de-sac

the danger of hernia into it is avoided.

(6) When the inverted fundus is removed there is no direct communication left between the peritoneal cavity and the air, and so danger of septic infection through the vagina is done away with.

3rd By removing the ovaries Emmanuis-menscium and its attendant evils are done away with.

4th By curetting the inverted uterus before starting to amputate it, a cleaner surface, with less chance of septic infection, is obtained.

5th By introducing a row of stout interlacing sutures, and tying

them tightly, the danger of haemorrhage from the stumps is avoided.

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