HÆMATOMETRA IN RIGHT HORN OF AN UNDEVELOPED DOUBLE UTERUS,

SUCCESSFULLY TREATED BY ABDOMINAL SECTION.

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CASES of absence of fusion of the Müllerian ducts to a greater or less extent are of comparative frequency, and as might be expected give rise to almost endless varieties of anomalous conditions. These are of great interest, not only on account of their anatomical peculiarities but more particularly from a clinical standpoint, as the pathological effects of arrested development tend frequently to extremely grave consequences, and at the same time are often surrounded with difficulties of diagnosis by no means easy to elucidate.

In many instances duplicity of the genital tract in whole or in part may give rise to no symptoms whatever, and the owner may go through the functions of maternity unembarrassed, but frequently other developmental complications are coincident, and give rise to occlusion of the canal. Atresia may occur at any part of the tract, and may be either bilateral or unilateral, and thus when menstruation occurs we have a series of retention cysts which vary according to the seat of obstruction, and form an almost indefinite number of types of hæmatometra and hæmatokolpos. The following case forms an interesting example of the condition:

B. M., aged 24, consulted me in February last, and complained of having for the last seven years suffered from irregular but very severe pain in the right side. On one occasion two years ago she had a severe attack of general peritonitis which was thought to be due to appendicitis. Menstruation had never appeared. On bimanual examination of the pelvis, the cervix was felt to be small and conical, and through the right fornix an ill-defined boggy mass about the size of an orange was distinctly palpable. The sound passed 1 inch into the uterine cavity. Through the left fornix an extremely tender matted condition of the pelvic organs appeared to be present. From the experience of a similar condition the case was diagnosed as one of enlarged and inflamed appendages with an atrophic uterus, and their removal by abdominal section was undertaken.

The abdomen, when opened, showed evidence of previous general peritonitis from the adhesion of the omentum and intestines to the surrounding structures. The pelvic swelling proved to be the horn of an undeveloped uterus distended with tarry material, which had ruptured the original sac and extravasated between the layers of the right broad ligament. From the external aspect of the thinned and ruptured uterine horn there arose the round ligament and impervious Fallopian tube. The ovaries on both sides were much enlarged and showed signs, from the large number of blood cysts and extravasations in their substance, of intense congestion. They were embedded in the pelvis by strong inflammatory adhesions. By careful dissection they were enucleated and removed along with the distended uterine horn. The extravasated blood between the layers of the broad ligament was washed out, and the edges of the ligament stitched together. The operation was prolonged and tedious, but the patient, a strong, healthy woman, recovered without an untoward symptom.

The case is of much interest from several aspects, particularly in so far as there has been a total absence of external menstruation, the patent horn being atrophic, while the occluded horn was to a certain extent functionally active. Several cases have been cited by Hegar, Emmet, Leroy, and others, of unilateral retention in a rudimentary horn, but in all the patient menstruated regularly from the functionally active horn. In the case described, from the extremely irregular paroxysms of pain there can be little doubt that the uterus as a whole was poorly developed. The rupture of the distended horn, at first evidently intra-peritoneally, giving rise to general peritonitis as in tubal extraterine gestation, is also of much interest, as it would appear that the adhesions thus formed prevented future extravasations of blood into the peritoneal cavity.

As regards treatment I should strongly recommend that all such cases should be treated by laparotomy and removal of the uterine sac. Vaginal incision and evacuation of the contents is prone to be followed by septic infection and subsequent pyometra and peritonitis. Of 11 deaths recorded by Wells¹ in a series of 32 collected cases, 9 followed puncture of the sac and were due to septic peritonitis. The diagnosis must at all times be difficult, but is usually to be suspected if a boggy, somewhat cystic pelvic tumour can be felt, with a history of periodic paroxysms of pain at the menstrual periods should menstruation be present, or at regular periodic intervals should the menses be in abeyance. In the case mentioned, however, the irregularity of the paroxysms and the

absence of menstruation rendered the diagnosis practically impossible. Exploratory abdominal incision alone remained, therefore, for its elucidation.

REFERENCE.

¹ *Amer. Journ. of Obstet.*, 1900, p. 364.

THE TREATMENT OF PUERPERAL ECLAMPSIA BY DIURETIC INFUSIONS,

WITH A TABLE OF TWENTY-TWO CASES.

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PUERPERAL eclampsia is a subject of absorbing interest to obstetricians. Although many theories have been advanced we are still in the dark regarding the cause or causes of this exceedingly fatal disease. At present all that one can say is that the convulsions seem to be caused by a toxic substance which the organs of excretion have failed to remove from the system. The nature of this toxin is unknown. The marked diminution in the amount of urine, the presence of blood in many and of albumen in nearly every case point to the kidneys being out of gear. The liver also seems involved.

Taking it for granted that we have a poisonous substance circulating through the system, how are we to counteract its effect or get rid of it? If we knew what it was we could use an antidote, but as we are ignorant of its composition we can only hope to turn it out of the system through the natural channels of excretion. The channels through which a poison can be best got rid of are the kidneys, the bowels, and the skin. In the treatment of eclampsia the importance of free action of the bowels and skin has always been recognised; but it seems to me that sufficient attention has not been paid to the importance of securing prompt action of the kidneys during the actual attacks. In cases of threatened convulsions proper dieting and the prompt administration of diuretics and saline cathartics will, in the vast majority of cases, prevent the fits. In the actual seizure diuretics by the mouth are too slow in action. For the last three years I have been giving saline infusions consisting of sodium chloride and potassium bicarbonate or sodium acetate. As I have now had experience in 22 cases, I desire to place the results before the profession.

The principle of the treatment is to try to control the fits by one or other of the drugs in use, and to secure free action of the bowels, skin, and kidneys. In controlling the fits, chloroform, tr. veratrum viride, chloral and bromide, and morphine have all been used. If the pulse is quick and tense, tr. veratrum viride (℥x or ℥xv hypodermically) acts well. Morphine I have given up, as it seems to have the effect of lessening the excretion of urine. Chloral and bromide in large doses are certainly very useful. In plethoric patients bleeding may be resorted to. For clearing the bowels enemata are only useful to unload the rectum. Croton oil is very uncertain. I have given ℥v without the least effect. If there is oedema of the tongue and pharynx, it may increase this and cause oedema glottidis. I have seen this in 2 cases, one of which proved fatal. Magnesium sulphate I am now using entirely, giving from 4 to 6 tablespoonfuls in warm water. If the patient cannot swallow, it should be given through a tube. Chloral and bromide may be given along with it. To keep the skin acting a hot pack or steam bath is most useful. Great care must be taken to prevent the patient being blistered. It is surprising how easily this may happen when the patient is comatose. A hot bottle must never be allowed to touch the bare skin. Pilocarpin is a drug I have never tried. Oedema of the lungs is present in most of the cases, and the risk of increasing this is too great.

What I consider the most important part of the treatment now comes to be considered—namely, that directed towards getting the kidneys to act. When the patient is having convulsions diuretics by the mouth are too slow in acting. As soon as the patient can swallow they should be given to keep up the action. All our cases were given large amounts of Imperial drink and milk for several days. To insure prompt action of the kidneys I have given saline infusions under

No.	Month of Preg.	Dilatation of Os.	Amount of Ede-ma	Albumen in Urine.	Treatment.	Method of Delivery.	No. of Fits.		Length of Coma.	Result.		Remarks.
							Before.	After.		Child.	Mother.	
1	17	F. T.	Slight	Loaded	CHCl ₃ , chloral and bromide, 20 m. tr. verat. viride 20 oz. saline pot. bicarb. 1 part, and sod. chloride 2 parts) hot pack; croton oil	Forceps under CHCl ₃	1		2 days	Alive	Alive	The infusion was given two days after delivery; urine not collected first day, but on second, 96 oz.; and on third 100 oz.
2	2	M 7th	"	Solid	15 m. tr. verat. viride; 20 oz. saline (pot. bicarb. and sod. chloride) in used twice; croton oil; hot pack	Accouchement forcé under CHCl ₃	3 in hospital, but many before admission		42 hours	Dead	"	29 oz. urine 24 hours after first infusion, but much lost with motions; 60 oz. after second infusion in 12 hours, and 115 next 12 hours; urine quite thick with urates.
3	12	M 6th	"	Nearly solid	15 m. tr. verat. viride; 20 oz. saline (pot. bicarb. and sod. chloride); croton oil	Natural; CHCl ₃ to wards end of second stage 7 days after the fits	3		None	"	"	12 oz. of urine in 12 hours, but much lost; 60 oz., 130 and 210 during next 3 days.
4	2	F. T.	"	Loaded	1/2 gr. morphine; 30 oz. saline (pot. bicarb. and sod. chloride) infused, and 40 oz. into rectum; free stimulation with brandy and ether	First child naturally; second forceps under CHCl ₃	2		"	Alive	"	Had severe post-partum hemorrhage; 100 1/2 oz., 140 1/2 oz. 92 oz. and 83 oz. urine following 4 days.
5	7	M 1	Considerable	Nearly solid	20 oz. saline (pot. bicarb. and sod. chloride); hot pack; 1/2 gr. morphine after delivery; croton oil	Forceps under CHCl ₃	6		24 hours	Dead	"	63 1/2 oz. urine second day, and large amount lost with motions.
6	10	M 4	Marked	Loaded	1/2 gr. morphine, 24 oz. saline (pot. bicarb. and sod. chloride equal parts) calomel and jalap; 30 oz. saline 12 hours later and bromides; hot pack	Natural and practically painless 36 hours after seizure	3		None	Alive	"	Child weighed 3 1/2 lbs.; urine 27 oz., and 3 motions; 25 oz. and 5 motions; 33 oz., 34 oz. each 24 hours. The morphine seemed to lessen excretion.
7	10	1	"	"	30 oz. saline (equal parts pot. bicarb. and sod. chloride); hot pack; 24 oz. saline (equal parts pot. bicarb. and sod. chloride); hot pack after delivery	Forceps under CHCl ₃	14		2 days	Dead macerated	"	Albumen although fetus macerated; 30 oz. and 5 motions; 90 oz. and 2 motions; 145 oz. and 1 motion.
8	7	M 2	Excessive	Solid bloody	40 oz. saline (equal parts pot. bicarb. and sod. chloride); bleed; hot pack; 1/2 gr. morphine; 1 gr. morphine 36 hours later; 15 m. tr. verat. viride 30 oz. saline; croton oil; calomel and jalap 24 hours later 21 oz. saline; digitalin and strychnine; hot packs	Accouchement forcé; Perforation	8		Profound until death; 44 hours	Dead	Dead	Only 1 1/2 oz. urine excreted in 44 hours; could not get bowels to act; necropsy showed double pneumonia, numerous ulcers in stomach; patches of hy-peremia in intestines; kidneys hy-peremic; liver apparently sound.
9	16	M 2	Slight	"	1/2 gr. morphine; 40 oz. saline (pot. bicarb. and sod. chloride equal parts); free stimulation; brandy and strychnine	Accouchement forcé; version	Large number		Very deep	"	"	Died 5 hours after delivery; pupils pin-point, and she looked exactly like a patient dying from morphine poisoning; no urine excreted; no necropsy.
10	27	M 1	"	"	20 oz. saline (pot. bicarb. and sod. chloride equal parts); calomel and jalap	Forceps under CHCl ₃ 18 days later	2		None	Alive	Alive	There was a suspicion of scarlet fever in this case; some desquamation; child weighed 3 1/2 lbs.
11	27	M 4	Considerable	Solid; bloody.	20 oz. saline (pot. bicarb. and sod. chloride), chloral and bromide.	Dilatation and version under CHCl ₃	8		3 hours	Dead	Dead	Child's arms were rigid; mother died 2 hours after delivery; hopeless case; no necropsy
12	23	M 1	Marked	Loaded	10 gr. chloral hypodermically hourly for 5 hours; 30 oz. saline (pot. bicarb. and sod. chlor.), and 6 hours later 40 oz. (sod. acet. and sod. chlor.), 1 drachm each to pint; croton oil, calomel, and salts; hot pack.	Delivered by incision of the cervix under CHCl ₃	Very many		12 hours	Dead	Alive	Edema glottidis 24 hours after delivery, caused great embarrassment of breathing; she had had fits for 12 hours before admission, and was sent in as hopeless; 5 m. croton oil had no effect on bowels.
13	23	M	Considerable	"	Hot pack; 45 oz. saline (acetate and chloride of sod.); 30 gr. chloral in three hypodermic doses; salts; 40 oz. saline 12 hours later; 24 hours later bleed 20 cc. and transfused 20, 2 normal saline into vein; hot packs every 4 hours; 24 hours later 20 oz. saline	Dilatation and forceps 12 hours after admission under CHCl ₃	Many		5 days	Dead; macerated	Dead	Died on seventh day; necropsy revealed perforation of duodenum large enough to admit one finger; kidneys healthy; she was cured of the eclampsia; the duodenum perforated without any indication of disease; no previous history of pain; Although the fetus was macerated, the urine was loaded with albumen.
14	29	M 7	Slight	Nearly solid; bloody	Tr. verat. viride (10 m); salts, 50 oz. saline (acet. and chlor.); hot pack	Accouchement forcé; bipolar version under CHCl ₃	"		24 hours	Alive	Alive	Had kidney disease; dropsy, with last confinement, but no fits; epithelial and granular tube casts; left side of cervix torn; stitched after allowing considerable bleeding.

	13 ³⁸ M	16 ²⁸ M	17 ²⁰ M	18 ¹⁷ S	19 ¹⁶ S	20 ²² S	21 ²⁰ M	22 ²¹ M
	6th	1 F. T.	8th	1 F. T.	1 F. T.	1 F. T.	1 F. T.	1 F. T.
Size of florin	Dilated		Size of shilling		Dilated		—	Dilated
Considerable	Marked		Slight	"	None	Considerable; labia swollen	None	"
Nearly solid	About $\frac{1}{2}$		Solid	Considerable	About $\frac{1}{2}$	Considerable	Mere trace	Considerable
Tr. verat. viride (10 m); salts, 50 oz. saline (acet. and chlor.); hot packs	60 oz. saline (acet. and chloride), hot pack, salts		40 oz. saline (acet. and chloride), chloral 10 gr. hypodermically (3), hot packs; 12 hours later 40 oz. saline 10 m tr. verat. viride; 4 days later 40 oz. saline and 10 m tr. verat. viride; milk, brandy, and meat juice through tube 3 times	$\frac{1}{2}$ gr. morphine before admission; salts, 60 oz. saline (acet. and chloride); 10 m tr. verat. viride; hot pack	60 oz. saline (acet. and chloride), 10 m tr. verat. viride, and hot pack	Puncture of labia; salts, 40 oz. saline (acet. and chloride), 10 m tr. verat. viride; hot packs; 24 hours later 60 oz. saline and 10 m tr. verat. viride	60 oz. saline (acet. and chloride), salts, bromide, and chloral; hot pack; 10 m tr. verat. viride 10 hours later	45 oz. saline (acet. and chloride), salts, bromide, and chloral; steam bath
Accouchement under CHCl ₃	Embryulcia		Accouchement under CHCl ₃	Dilatation and delivery under CHCl ₃	Forceps	Dilatation and craniotomy	Delivered by forceps without CHCl ₃ before admission	Delivery by forceps in Walcher's position
Many	1		10	10	2	10	0	5
12 hours	0		18 24 hours; fifth day, deep for 24 hours	—	0	24 hours	4½ hours	0
Dead	"		"	Alive	"	Dead	Alive	"
Alive	"		"	"	"	"	"	"
Pneumonia on third day, but recovered; 16 years since first child.	Conj. vera $\frac{2}{3}$ in.; attempts to deliver with forceps before being sent in; took severe fit on admission; difficult craniotomy, and had to break up body also; she took pleuro-pneumonia, but recovered. Deeply comatose on fifth day; kidneys and bowels acting freely; albumin merely a trace; during second coma urine loaded with bile pigment.		Had dry pleurisy for a few days.	Prolonged labour; pelvis slightly contracted; fits came on during second stage without any warning. Conj. vera $\frac{3}{8}$ in.; before death left arm and side of face seemed paralysed; conj. deviation of eyes to left; died on the third day; was passing urine very freely; necropsy revealed nothing in the brain; kidneys practically normal; liver markedly degenerated. Fits came on four hours after delivery.			Conj. vera $\frac{3}{8}$ in.; very difficult delivery in Walcher's position; urine had been tested four months before, and no albumen found.	

the breasts or into the abdominal wall or axilla. Under the breast is the most convenient place. A medium-sized trocar and cannula, with a few feet of tubing and a funnel, is all that is required. The puncture should be covered with adhesive plaster. Messrs. Gardiner and Co. have made up a convenient apparatus enclosed in a metal box. The solution used in the first 12 cases consisted of pot. bicarb. and sod. chloridi, at first 1 to 2, and later equal parts, a drachm being used with each pint. In the last 10 cases sodium acetate has been substituted for the bicarbonate of potash, using 1 drachm of it along with 1 drachm of the chloride to the pint. One to 3 pints may be used at a time, and this may be repeated if necessary. The solution runs in quickly, and absorption is rapid. Sterilised water should be used at a temperature of about 104° F. to ensure its being about 100° when it enters the tissues. Aseptic precautions must be rigidly adhered to. I have never yet had any sloughing or abscess formation, although I must have done at least 200 infusions, including those from hemorrhage, etc. Several of my critics have maintained that the infusions produce no diuretic effect. On account of the profuse evacuations of the bowels, and also on account of most of the patients passing the urine unconsciously, we have never been able to estimate the exact amount of urine excreted. In a report published in the *American Journal of Obstetrics* of three cases treated by normal saline solution by Dr. Allan, he claims to have secured a diuretic action on the strength of from 25 to 29 ounces of urine having been excreted during the first twenty-four hours. In some of my cases from 60 to over 100 ounces were measured, while a good deal was lost. If he got a diuretic effect, surely I am entitled to claim the same on the strength of an excretion of three times as much.

In several of the cases Dr. Carstairs Douglas kindly analysed the urine before and after infusion, and in all he found a marked increase in the urea and uric acid after the infusion. The diet of the patient could have had nothing to do with this, because none of them had had any food except milk, and very little of that. What else may have been carried out of the system I do not know.

The obstetric treatment has varied according to the condition of the patient. No hard-and-fast rules can be laid down. If there is no indication of labour, I prefer leaving the uterus alone, unless the fits continue in spite of treatment, when I think the uterus should be emptied as quickly as possible. If dilatation by bougies and the hand is difficult, the cervix should be freely incised. Caesarean section has been practised in such cases, but to my mind it seems an unjustifiable operation. The results have been anything but good. If the os is soft and dilatable or fully dilated, I prefer immediate delivery under chloroform. *Post-partum* bleeding should be encouraged, but in the majority of cases it is unfortunately only slight. In bad cases the blood which comes is usually very dark in colour. In some I have seen it almost black.

The accompanying table gives the 22 cases treated. Very few of them have been what might be called slight, and some of them were very severe. With one exception they have all been treated in the Glasgow Maternity Hospital. I have not selected them, but have taken them as they came. If I had selected them, three of the fatal ones might have been left out, as they were hopeless from the very first. Several of the successful ones were sent in after they had been having fits for a long time, and the medical men in attendance had given up hope of saving them.

Of the 22 cases, 5 died, but one of the deaths was due to a perforating duodenal ulcer, and occurred on the seventh day after the eclamptic condition had been cured. In another of the cases the *post-mortem* examination revealed double pneumonia, multiple ulcers in the stomach, and patches of acute enteritis. Omitting the ulcer case, as I am quite entitled to do, we have 4 in 22, which, considering the nature of the cases and the fact that many of them had been convulsed for hours before we saw them, is a result one need not be ashamed of.

Of the 23 children 10 were alive and 13 dead. In 2 cases they were macerated; craniotomy, embryulcia, and perforation were performed on 3 others, while 3 were too premature to live. Of the 10 full time children all were saved except the two on whom craniotomy was performed. In 2 cases I

was fortunate enough to obtain a specimen of urine from the child, and in both there was a considerable amount of albumen. Once before I was able to make the same observation, so that I am inclined to believe albumen will always be found in the child's urine.

In one case a dead child was delivered with both its arms perfectly rigid. In a fatal case of eclampsia I once before delivered a child in a condition of rigidity all over as if rigor mortis had set in. In one instance I have known convulsions occur in a child for a day or two after delivery. The toxin seems to affect the child's kidneys in the same way as it does the mother's, and it may not only cause convulsions but also the death of the child. It has been maintained that on the death of the child *in utero* the albumen quickly disappears from the mother's urine. In 2 of my cases the children were macerated, yet in both of them the urine was loaded with albumen. My experience therefore goes to disprove this assertion.

I sincerely hope that this method of treatment will be tried by others. I believe in it, and shall continue to use it until a better is brought forward. I have tried all the others, and none of them has given me as good results as this.

A CASE OF UTERUS BICORNIS ACCIDENTALLY DISCOVERED AFTER THE PATIENT'S FOURTH PREGNANCY.

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THE following case may be of interest to some as illustrating the difficulty in diagnosing the condition, and in the fact that pregnancy had occurred with normal delivery from one half of a uterus bicornis several times before the condition was discovered.

The patient, I. L., aged 23, first came under my notice as an out-patient at the Samaritan Hospital in May, 1899, for a swelling in the anterior wall of the vagina and difficulty with micturition. Her own medical attendant, Dr. Dods, wrote saying that the swelling had caused great difficulty in delivery at her last confinement, owing to the fact that it had obstructed labour low down, presenting before the head at the vaginal orifice; delivery was eventually effected by powerful traction with the forceps. The swelling was cystic and very oedematous. At one time perforation of the head was thought necessary, owing to failure in delivery by forceps; but eventually these were successful. She made a good recovery from her confinement. This was her third full-time child, and was born on December 15th, 1898. Her two previous pregnancies had been fairly normal, but instrumental.

The swelling subsided more or less after her confinement, and gave her little trouble up to May, 1899, when she came to the hospital. It was then rather painful, and caused difficulty with micturition, and as it presented at the vulvar orifice she thought her womb was down.

On examination a rounded tumour was found occupying the anterior vaginal wall about the size of a bantam's egg, lying in close proximity to the urethra, just beneath symphysis pubis, and covered by normal vaginal mucous membrane. It was cystic, but was lying deeply beneath the vaginal tissue, and had evidently very thick walls. On pressure its contents could not be emptied into the bladder or urethra; a sound in the bladder found the swelling between it and the examining finger. The urine was alkaline, and the last drops of urine withdrawn by a catheter from the bladder containedropy pus. The swelling was exactly in the middle line of the anterior vaginal wall and a curvilinear median raphe or ridge of vaginal tissue extended right up from this to what appeared to be a normal cervix, suggesting an attempt at a double vagina. The colour of the vagina and cervix suggested pregnancy. There was a history of amenorrhoea of three months' standing, and the breasts were active. A swelling occupied the right iliac fossa which on bimanual examination felt like the pregnant uterus at three months.

She attended off and on during the next three weeks as an out-patient. She was finally admitted on June 23rd, 1899. The diagnosis was made of vaginal cyst or urethral diverticulum, and as it had caused so much trouble at the previous confinement it was decided to remove it. It was known that she was probably pregnant.

The operation was performed on June 25th. My colleague, Mr. Corrie Keep, assisted me at the operation. Under the anæsthetic the cyst was more clearly felt, and the longitudinal fold of vaginal tissue extending up to the cervix from this was well seen and very well marked. The cervix was closed, and appeared normal and single. The swelling in the right iliac fossa was carefully examined, and although it was thought probably to be the pregnant uterus, it rather puzzled us to account for its marked right-sided obliquity, and though mobile if displaced, it returned at once to its original position. The swelling felt like pregnancy, but it was very elastic, and the question of parovarian cyst was raised, considering that the occurrence of parovarian cysts with vaginal cysts was well known to occur in relation to abnormalities of Gartner's duct.¹ A smaller swelling could also be felt to the left of the larger one; but, as pregnancy was thought probable, no sound was passed.

The removal of the vaginal tumour was difficult, and after the vaginal tissues had been divided a large swelling of the size of a hen's egg was exposed; it had very intimate relations with the base of the bladder and

urethra; it was gradually enucleated, freed from its surroundings, and came away easily except for a deep attachment to the urethra, as demonstrated by the bladder sound. This attachment was of the thickness of the little finger, and on finally dividing it the urethra and a small portion of the base of the bladder were opened up, just admitting the tip of the finger, urine at once escaped. The hole was carefully examined and closed without difficulty by six or eight fine silk sutures, over which the vaginal flaps were now sutured; the bladder was tested, and proved to be completely watertight on injecting fluid into it.

The tumour removed was found to be an inflamed pouch or abscess attached to the base of the lower one-third of the urethra; it was very thick-walled, and contained a large, ragged cavity filled with phosphatic concretions and foul alkaline purulent urine. It communicated by a small orifice with the base of the urethra at the place where so much difficulty had been found in freeing the tumour from the urethral tissues.

We formed the opinion that the tumour was probably of congenital origin and that injury of confinements and frequent attacks of inflammation in the sac had increased its size, and that from time to time it communicated with the bladder, discharging its contents and leading to attacks of cystitis. It was not a dermoid.² It was impossible to avoid opening the urethra and base of the bladder during the removal, but these were at once repaired. (Some operators allow them to granulate up if cystitis be present.) Subsequently the patient did very well and the cystitis rapidly cleared up and she passed her water naturally after the first ten days (during which the catheter had been used). There was never any leaking of urine or incontinence. She left the hospital three weeks after the operation.

While the patient was in the hospital the swelling in the right iliac fossa gradually increased in size, and there was little doubt that it was a pregnant uterus, as other signs and symptoms of pregnancy were now marked, still it was not quite like an ordinary uterine condition even with marked right uterine obliquity. There had never been any hæmorrhage or discharge *per vaginam*, but the swelling was at times painful. Several of my colleagues saw her with regard to the swelling in the abdomen, and Mr. Doran, who saw her on July 15th, suggested tubal gestation, but thought that the right fornix was freer than usual for that condition. He did not advise operation unless severe abdominal symptoms occurred. The alternative diagnosis was normal pregnancy or parovarian cyst complicating pregnancy.

As the hospital closed in the middle of July I decided to send the patient home, as she lived quite near to the hospital. I heard nothing further of the case till August 1st (about three weeks after leaving the hospital), when Dr. Dods asked me to see the case again, as she had been losing a little blood *per vaginam*, and for the last few days the loss had been severe, and there had been pains in the abdomen like labour pains.

On examination I found that she was losing considerably, and that the cervix was now relaxed and soft, and easily admitted a finger, which passed into a cavity to the left, in which was discovered a mass like decidua, the sound passed 4 inches into this cavity to the left, the swelling to the right of this was larger than when she was in the hospital, and it was now quite clear that another cervical canal, which was closed, could be felt belonging to the larger swelling, and that there was a common cervix with a double uterine body (the finger now easily entering the left half, in which decidual tissue was felt) and that the right-sided swelling was certainly a 4½ months' pregnancy.

Mr. Doran saw the case with me, and agreed in the diagnosis of uterus bicornis unicollis, pregnant four and a-half months on the right side, and that the left half was now discharging a decidual cast. The left half was emptied, and several pieces of foetid decidual tissue removed. The finger in the left (now empty) half found it quite mobile and distinct from the other enlarged pregnant side.

As she had suspicious pains in the abdomen we both feared that she would miscarry from the right side very shortly. This proved to be correct; during the night of August 4th she miscarried from the right half, and a normal foetus about four and a-half months was passed. I saw her on August 5th, and finding the greater part of the placenta still *in utero* I removed it under chloroform.

The curious uterine condition was now quite apparent. There was a common cervix immediately above, which was a well-marked median septum, the finger passing on either side of it into one or other half of a uterus bicornis, the right half of which was well developed and in which this pregnancy (and probably the three previous full-term pregnancies) had developed. The walls of the right half of the uterus were of normal thickness and texture, and contracted well when the placenta had been removed; the left half was small and ill-developed, and felt like a long finger-like process. The halves of the uterus above the external os were quite distinct, and could be moved separately from one another. No recto-vesical fold could be made out between the two cornua.

The tissue removed from the left (smaller) half was carefully examined microscopically, but no villi were found; it had the appearance of an ordinary decidual cast. The tissue from the right larger half exhibited normal placental tissue under the microscope. The patient was rather ill for the first two or three days after the operation, chiefly from troublesome vomiting; she lost very little blood, and rapidly improved. The involution of the uterus appeared to take place normally. About a fortnight after the operation she had trouble with the bladder and another bad attack of cystitis, passing urine under her which was very foul. One night a supposed calculus the size of a large pea was passed, composed of phosphatic concretions which on being opened contained three or four fine silk ligatures probably from the original operation. After this the cystitis cleared up completely, and when I last examined her on September 5th she was quite well, and was going abroad for a holiday. There was nothing abnormal in the pelvis and the cicatrix of the bladder wound was quite sound, and she had perfect control of her water. The bilobed condition of the uterus was quite clear, but the cervix had closed up and appeared normal. Nothing of the septum could now be felt.

REMARKS.

The case is of interest, not perhaps on account of its rarity, but that the condition should have been only found out by