

## On Repeated Extra-Uterine Pregnancy, with Notes of Two Cases.

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A REVIEW of the literature published during the past decade on extra-uterine pregnancy shows that every possible variation may be observed in this condition. Cases have been reported of repeated ectopic pregnancy in the opposite tube; of its recurrence in the same tube; of simultaneous pregnancy in both tubes; of tubal and uterine pregnancy coinciding; and even of pregnancy occurring in the stump remaining after an operation for the removal of a gestation sac. So far, no authentic case of ectopic gestation occurring three times in the same patient has been recorded. The most frequent form of repetition is in the opposite tube, of which I have met with two examples.

Since attention was specially directed to this condition by Olshausen, fifteen years ago, a large number of cases has been published, proving that its occurrence can no longer be regarded as one of great rarity. In 1901 Pestalozza collected 111 cases, and the following recently published figures are available for statistical purposes:—

Puech .....	180	cases	.....	8	repeated.
Wertheim.....	120	„	.....	8	„
Engstrom.....	80	„	.....	4	„
Beyser .....	50	„	.....	4	„
Orthmann.....	45	„	.....	2	„
Reifferschied.....	43	„	.....	2	„
Dührssen .....	37	„	.....	2	„
Haultain .....	30	„	.....	4	„
	585			34	

These figures show that in a series of cases of ectopic pregnancy it may be expected to recur in the same patient in from 5 to 6 per cent. of the total.

The shortest period reported to have elapsed between recurrent tubal gestation is six weeks as shown by Zangemeister's case, while the longest interval is five years as quoted by Kokmann. Coe, however, reports a case where there was an interval of twelve years between two tubal pregnancies on the same side. Wells has collected 99 cases to ascertain the average interval between recurrence, which he found to be two years.

The occurrence of an ordinary uterine pregnancy following an extra-uterine pregnancy is not uncommon. Doran reports three such cases, and two examples have come under my own observation.

A normal pregnancy in the interval between two coeliotomies for ectopic gestation is much rarer. The second case here reported is an example, and similar cases have been published by Kokmann and Orthmann.

The following are the notes of my cases:—

CASE I. Mrs. C., aged 30, was admitted to the gynæcological department of the Dundee Royal Infirmary on Jan. 19th, 1900. She complained of intermittent pain in the left iliac region with irregular hæmorrhagic discharge of one month's duration. She had been married fourteen years, and had had six children; no miscarriages. Menstruation had always been regular except during pregnancy, and had been unassociated with any special discomfort. The last normal period had occurred ten weeks before admission, and for a month before coming under observation she had complained of the above symptoms. The pain was sudden in onset, severe in character, and aggravated by movement of the bowels. On admission the temperature was 98·4, pulse 102, urine normal. The abdomen was soft and pain was elicited on deep palpation of the left iliac region, where an ill-defined resistance could be felt. The uterus was somewhat fixed and pushed to the right by a swelling in the left side of the pelvis, the tumour being distinctly felt through the left fornix. Further examination under chloroform showed that the swelling was about equal in size to a large orange, close to the uterus, and apparently occupying the left broad ligament. The case was regarded as one of hæmatoma in the left broad ligament—the result of a ruptured tubal pregnancy at about the sixth week. It was decided to allow absorption to take place rather than treat the case by operation. After two months' rest in bed, some thickening felt through the left fornix was all that remained to represent the previous condition. The patient left the hospital well, ten weeks after admission. She continued in good health, and menstruation was regular during the subsequent eighteen months.

## SECOND ECTOPIC GESTATION.

Patient was re-admitted to the hospital on September 5th, 1901. She complained of pain in the right iliac region of five weeks' duration. She had gone one week past the expected menstrual period when the pain began, and it was followed by hæmorrhagic uterine discharge. She gave a history of having passed two pieces of membrane with the discharge a few days after the onset of the pain. This was followed by temporary relief, but the pain recurred from time to time up to the date of admission. Examination under chloroform showed that the uterus was directed to the front, movable, and slightly enlarged. There was no undue pulsation of the uterine vessels, and both lateral fornices appeared to be free from any swelling. Posteriorly and slightly to the right of the uterus there was felt, however, a fixed, tender swelling about the thickness of the forefinger. On rectal examination this swelling appeared to be more like an inflammatory thickening of the utero-sacral ligament than a distended tube, and for this reason it was decided to postpone operative interference. The patient was kept in bed for six weeks, during which period she had intermittent attacks of pelvic pain accompanied with irregular hæmorrhagic discharge. There being no diminution in the size of the swelling the condition was regarded as tubal gestation and operation decided on. Cœliotomy was performed on October 5th, 1901. The right tube was found to be adherent, and distended to the thickness of the thumb. It was removed along with the corresponding ovary. The left uterine appendages were adherent and the upper part of the broad ligament was thickened. The left tube and ovary were not removed. Recovery was satisfactory and the patient was discharged well, on the 19th November. Professor Sutherland kindly examined the enlarged tube, microscopically, and finding small decidual cells he was able to corroborate the diagnosis.

Although the diagnosis of the first ectopic gestation in this case rests on clinical grounds, yet it seems probable that the course of events was as follows:—A six weeks' ectopic gestation in the left tube, rupturing into the corresponding broad ligament and forming a hæmatoma, which became absorbed in the course of two months; eighteen months' subsequent good health and a recurrent pregnancy in the right Fallopian tube.

CASE II. Mrs. C., aged 36, was admitted to the gynæcological department of the Dundee Royal Infirmary on November 19th, 1902.

She complained of pain in the right lower part of the abdomen with uterine hæmorrhage, the former of about five weeks' and the latter of twelve days' duration. Menstruation began at 17, was of the 28-day type, and its average duration was a week. The last period terminated at the end of August, 1902, that due in September was missed, and about the middle of October she first felt the pain complained of. She had had five full-time children and three miscarriages, the last at the third month a year and a half before admission. The pain in the right iliac region was of sudden onset, severe and down-bearing in character. Her previous health had been good, except that on three occasions she had been in hospital for what was regarded as "ovaritis" apparently dating from a previous confinement. On examination it was noted that the patient was anæmic, the right breast contained milk, but there was no history of sickness. Pulse 84; temperature 99 degrees. There was marked tenderness on pressure over the right lower part of the abdomen. The uterus was slightly enlarged and movable. In the right fornix there were felt distinct arterial pulsation and a tender doughy swelling equal in size to a hen's egg. Beyond some tenderness there was nothing abnormal felt in the left fornix. The condition being diagnosed as ectopic gestation, cœliotomy was performed on December 2nd, 1902. The right tube was found distended with blood-clot; no embryo was discovered, and there was only a small quantity of blood in the pelvis. The left tube and ovary appeared normal and were not removed. The patient was discharged on December 27th, 1902. She continued well. Menstruation returned two months after leaving hospital and continued regular till the beginning of March, 1904, when she again became pregnant. She was delivered (with forceps at the outlet) of a full-time healthy male child on December 1st, 1904. The patient suckled her infant for nine months. Menstruation returned in September, 1905, and continued regular till May, 1906.

#### SECOND ECTOPIC PREGNANCY.

Patient was re-admitted to the hospital on May 21st, 1906. She had had pain in the left iliac region for five days, and also hæmorrhagic discharge of a fortnight's duration. The menstrual period expected at the beginning of May had been delayed for a week. On examination, the uterus appeared slightly enlarged, and there was a considerable amount of dark-coloured blood escaping from the cervix, but nothing definite was made out in the pelvis. She was kept in bed till the 30th May, during which time the bleeding and

pain continued intermittently. A considerable doughy swelling was now felt through the posterior fornix, which was regarded as a hæmatocele,—the result of a left-sided tubal abortion. Cœliotomy was performed on June 1st, 1906. On opening the peritoneal cavity a large amount of blood escaped, and more was removed from the pelvis. On drawing up the left appendages the tube was found enlarged to the size of an orange by a blood-clot which surrounded its patulous fimbriated extremity and produced a typical peritubal hæmatocele. Both tube and ovary were removed in the usual way and the patient was discharged well, on June 27th, 1906.

The record of such cases gives rise to the practical question: Should the apparently sound tube be removed at the first operation so as to prevent a future tubal gestation? Haig Ferguson thinks "that the proper course is to remove the appendages of the opposite side as well," and Reed advises the same practice "owing to the frequency of recurrence, for the desquamative salpingitis which is the cause of the extra-uterine gestation in one, without doubt exists in both tubes." But the frequency of recurrence is not great, and the importance of salpingitis as an etiological factor is quite uncertain. Most authorities question the necessity for interfering with the apparently healthy appendages of the opposite side. The subject has recently been discussed at the Vienna and London Obstetrical Societies; in the former Schauta, and at the latter Cullingworth, Doran, Spencer and others expressed themselves in favour of leaving the unaffected tube. The second case which I have reported shows that a perfectly normal pregnancy may follow unilateral removal of the tube for ectopic gestation. Further, such removal is no guarantee that gestation may not even recur in the stump of the tube removed. Lesse and Hofmeier have each reported such an occurrence, and Morbit has recorded a case where tubal pregnancy occurred on the same side where two and a half years previously the appendages had been removed for pyosalpinx.

The well-being of a patient after the occurrence of an extra-uterine gestation might be sufficiently safeguarded if she reported herself as soon as the early signs of a recurrent pregnancy manifested themselves.

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#### REFERENCES.

1. Böttger (W.). "Ueber einen Fall von wiederholter extra-uterine Schwangerschaft bei derselben Frau." *Deutsche Dissertationen*, Leipzig, 1902.
2. Cohen (R.). "Wiederholte Tubenschwangerschaft." *Zentralblatt für Gynäk.*, 1903, Nr. 29, p. 904.

3. Dawson (E. R.). "Case of repeated Tubal Pregnancy." *Journal of Obstet. and Gynaecol. Brit. Empire*, Sept. 1903, p. 301.
4. Doran (A.). "Repeated Tubal Pregnancy." *Transact. Obstet. Society, London*, 1905, Vol. xlvii., p. 235.
5. Ferguson (J. Haig). "Repeated Ectopic Pregnancy in the same Patient." *Edin. Med. Journal*, Feb. 1899, p. 145.
6. Glitsch (R.). "Zur Aetiologie der Tubenschwangerschaft." *Archiv für Gynäk.*, 1900, Band lx., Seite 390.
7. Haret (U.). "Recidivirende éktopische Schwangerschaft." *Zentralblatt für Gynäk.*, 1902, Nr. 13, Seite 349.
8. Harris (P. A.). "Recurrent Ectopic Gestation." *American Journal of Obstet.*, 1904, Vol. i., pp. 117, 119.
9. Haultain (F. W. N.). "A Clinical Experience of Ectopic Pregnancy." *Journal of Obstet. and Gynaecol. of Brit. Empire*, June 1906, p. 409.
10. Heikel (O.). "Neue Beobachtungen wiederholter Tubenschwangerschaft bei derselben Frau." *Zentralblatt für Gynäk.*, 1902, Nr. 2, Seite 54.
11. Hofmeier (M.). "Wiederholte Schwangerschaft in derselben Tube." *Berlin. klinische Wochenschr.*, 1905, Nr. 27.
12. Horrocks (P.). "Repeated Ectopic Pregnancy." *Trans. Obst. Soc., London*, Nov. 7, 1900.
13. Kirchgessner (P.). "Ueber mehrfache Tubargravidität." *Deutsche Dissertationen*, Würzburg, 1903.
14. Kynoch (J. A. C.). "Repeated Ectopic Pregnancy in the same Patient." *Scot. Med. and Surg. Journal*, Feb. 1902, p. 120.
15. Lawrence (F. F.). "Ectopic Pregnancy twice in the same patient within fourteen months." *Journal American Med. Association*, 1904, No. 42, p. 534.
16. Lesse (E.). "Demonstrationen einer geplatzten interstitiellen Schwangerschaft im 6 Monate." *Zentralblatt für Gynäk.*, 1905, Nr. 18, S. 554.
17. Lewers (A. H. N.). "Repeated Ectopic Gestation in the same patient." *Transact. Obstet. Soc., London*, 1903, Vol. xlv., p. 418.
18. Liell (E. W.). "Repeated Tubal Pregnancy: a unique case." *Georgia Pract., Savannah*, 1905, Vol. i., p. 324. [This reference it has not been found possible to verify.]
19. Lyth (J. B.). "A case of Tubal Gestation with rupture in a woman previously operated upon for Tubal Gestation with Missed Labour." *Lancet*, Nov. 17, 1900, p. 1420.
20. MacCann (F. J.). "Clinical Observations on some cases of Early Tubal Pregnancy." *Clinical Journ.*, Apr. 30, 1902.
21. Martin (M.). "Ueber wiederholte extra-uterine Schwangerschaft." *Thèse de Paris*, 1901. *Zentralblatt für Gynäk.*, 1905, Nr. 42, S. 1191.
22. Michin (P.). "Wiederholte extra-uterine Schwangerschaft in ein und derselben Tube." *Monatsschrift für Geburtsh. und Gynäk.*, Band xxii., Heft 4.
23. Mittermaier. "Wiederholter extra-uterine Gravidität bei derselben Frau." *Zentralblatt für Gynäk.*, 1900, Nr. 18, S. 489.
24. Nash (W. G.). "Repeated Tubal Gestation." *Transact. Obst. Soc. London*, 1905, Vol. xlvii., p. 408.
25. Noble (C. P.). "Remarks on Extra-uterine pregnancy." *American Gynaecological and Obstet. Journal* for March, 1900.
26. Orthmann (E. G.). "Beitrag zur Kenntniss der Tubenschwangerschaft." *Zentralblatt für Gynäk.*, 1903, Nr. 32.
27. Pestalozza (E.). "Sulla Gravidanza tubarica recidivante." *Ann. de Obst. e Gin.*, Jan. 1901, p. 23.
28. Phillopowicz. "Ueber einen Fall von wiederholter extra-uterine Gravidität." *Wiener klin. Wochenschr.*, 1902, Nr. 13.

29. Purslow (C. E.). "Repeated Tubal Pregnancy; abdominal section on each occasion." *Transact. Obst. Soc., London*, 1905, Vol. xlvii., p. 181.
30. Reifferschied (Karl). "Zwei Fälle von wiederholter Tubargravidität." *Zentralblatt für Gynäk.*, 1903, Nr. xxvii., S. 661.
31. Schauta (F.). "Tubare Zwillingsschwangerschaft." *Berichte aus gynäk. Gesellschaft, Wien.*, April 1904.
32. Sens. "Kritische Studie über 89 Beobachtungen von recidivirender ektopischer Schwangerschaft." *Pariser Dissertationen*, 1901. *Zentralblatt für Gynäk.*, 1900, Nr. 41, S. 1152.
33. Taylor (J. W.). "Extra-uterine Pregnancy," 1899, p. 183.
34. Varnier (H.). Rapport sur une observation de M. Chapot-Prévost, de Rio-de-Janeiro, intitulée "Récidive de grossesse Ectopique." *Comptes rendus de la Société d'Obstétrique, de Gynécologie et de Pædiatrie de Paris*, Dec. 7, 1900.
35. Vassmer (W.). "Ueber wiederholte Tubenschwangerschaft." *Monatsschrift für Geburtsh. und Gynäk.*, 1903. Band xvii., S. 881.
36. Wells (Brooks H.). "Repeated Ectopic Gestation." *Medical Record*, 1902, Nov. 22. *Trans. Amer. Gynecological Society*, 1902, vol. xxvii., p. 380.
37. Wertheim (E.). *Zentralblatt für Gynäk.*, 1903, Nr. 28.
38. Weinlechner. "Doppelseitiger Tubenschwangerschaft." *Zentralblatt für Gynäk.*, 1905. Nr. 2, S. 46.

(The literature up to 1900 is fully given in the papers of Drs. Haig Ferguson and Brooks H. Wells.)

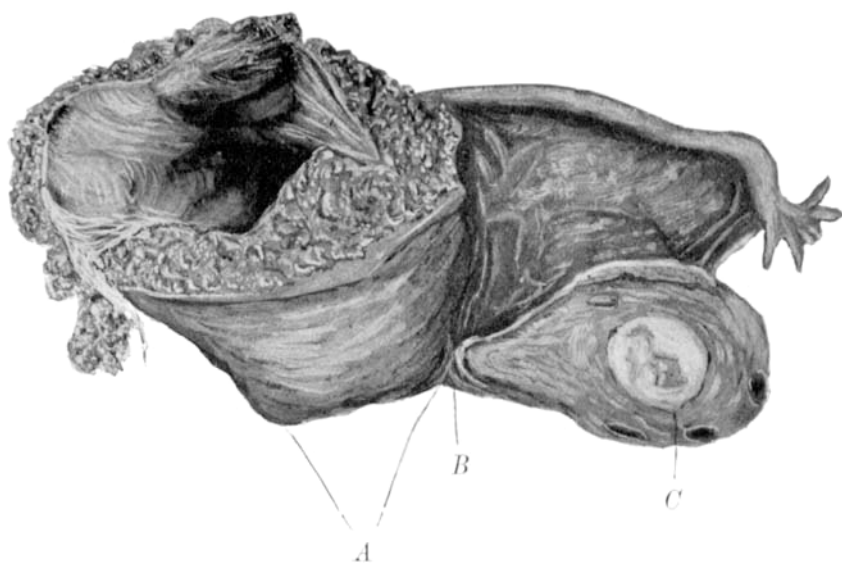


Plate I.

Showing rupture of gravid right rudimentary cornu uteri, from behind.

A, Amputation line.

B, Ovarian ligament.

C, Corpus luteum verum.

Notice universal attachment of chorion frondosum.