Apoplexy of the ovary : cystic dilatation without rupture / by Alban Doran.

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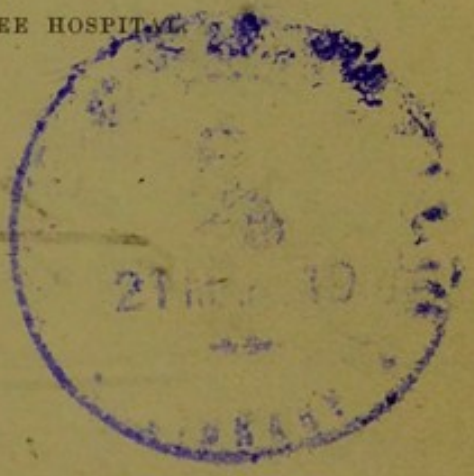
APOPLEXY OF THE OVARY;

CYSTIC DILATATION WITHOUT RUPTURE.

BY

ALBAN DORAN,

SURGEON TO THE SAMARITAN FREE HOSPITAL.



Read March 5th, 1890.

[*From Volume XXXII of the 'Transactions of the Obstetrical Society of London.'*]

p119

LONDON:

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ADLARD AND SON, BARTHOLOMEW CLOSE.

1890.

Jayle "L'hématocèle rétro-utérine par rupture de petit kyste hématique de l'ovaire." Revue de Gyn et de Chir. abdom. Vol XIII. 1909 (March-April) p 185. Seventeen (17) cases reported – very important paper (When the capillaries of an ovary become dilated & hyperstuffed from certain causes they rupture at points into the stroma & blood cysts develop.

I see Kystes hématiques primitifs de l'Ovaire" Potier Revue de Gynéc. et ~~d'Obstet~~ de Chirurgie Abdominale Vol VII. p. 783. "Dans l'ovarite scléro-kystique, l'hématome peut encore se développer dans la cavité d'un corps jaune, et d'après Pilliet, c'est là sa localisation habituelle" (loc. cit. p. 786)

Martin has met with haematocele from rupture of a follicle of an ovary associated with uterine fibroid (Krankheiten des Beckenbindgewebes p. 184

Harold W. Wilson, FRCS. "Haematoma of the Ovary & Certain other closely allied Conditions" Lancet May 26. 1906. p 1462

"Two Cases of Apoplexy of the Ovary" Hawkins-Ambler. Trans North Eng. Obs & Gyn S. 1905. p 5. "Case of Haemorrhagia associated with Haematoma ovarii" Hollick Ibid. p 47

Lockyer & Brown uterus bicornis & hydrosalpinx See J of Obst & Gyn of Br. E , Annie Mason Op. M. 10/11/03. Blood cyst in Rt ovary. also Rt Green of Huddersf. M 17/5/09. Corpus luteum haematoma (Rt) 2oz blood (In opp. ovary over twice extended up the ov. lig.) See also Rt Haematoliths – Trans Obst. Soc

Bozzi Hémorrhagies de la trompe non-gravide. Rev. de Gyn et de Chirurg abd July 1. 1910

Salvianson Hémorrhagies et hématocèle pelviennes intrapéritonéales sans grossesse ectopique Rev de Gyn 1909

Leriche & Blanc-Pardonnet

"Hémorragie intérieure extra-péritonéale diffuse par rupture d'un kyste hémorragique de l'ovaire" Annales de Gynéc. et d'Obst. Sept. 1911. 529

For additional illustrations see Reprint of Haemorrhage from the Fallopian Tube in Med. Evidence of Rebel Pertubation Vol II

APOPLEXY OF THE OVARY; CYSTIC DILATATION WITHOUT RUPTURE.

By Alban Doran.

SURGEON TO THE SAMARITAN FREE HOSPITAL.

(Received November 21st, 1889.)

(*Abstract.*)

The patient was 34 years old, and had borne eight children. The abdomen was unusually distended during her seventh pregnancy (1886). It remained large till the conclusion, at term, of her eighth pregnancy in the summer of 1888. The abdominal distention continued. In April, 1889, she was suddenly attacked with severe pain over the right side of the abdomen. Four weeks later the abdomen was found distended by a globose, elastic and freely moveable tumour, which pressed downwards into Douglas's pouch. Early in September the tumour suddenly diminished in size, sinking into the pelvis. On October 23rd Mr. Knowsley Thornton operated. The tumour was removed; it proved to be the right ovary converted into an oval body, two and a half inches in its longest diameter, and with an irregular surface of a uniform dull drab colour. The uterus and left ovary, the abdominal viscera, and the peritoneum showed no signs of disease old or recent. The ovary formed a cyst filled with a yellow mass, which was found to be old clot. A large, well-formed corpus luteum opened out into the cavity containing the clot. The cyst-wall, one eighth of an inch thick, consisted of normal ovarian tissue bearing a few follicles. The patient made a good recovery. The attack of pain in April, 1889, probably represented the rupture of a mature follicle into the stroma. The ovary then gradually distended till the hæmorrhage ceased, and diminished in bulk as the clot contracted.

The varieties of apoplexy of the ovary are described. This case is an example, not of hæmorrhage confined to the cavity of a dilated follicle, nor of hæmorrhage originating in the stroma, but of hæmorrhage into the stroma through rupture of a follicle.

Mrs. C. C—, aged 34, a healthy-looking woman, short in stature and inclined to corpulence, was admitted into Mr. Knowsley Thornton's wards in the Samaritan Free Hospital, in October, 1889.

She had been married for seventeen years and borne eight children, the youngest was over fourteen months old. The catamenia appeared at fourteen if not earlier, and continued regular except during pregnancy and lactation. In the course of her seventh pregnancy, in 1886, the abdomen grew unusually large, but she suffered no pain. On September 9th, in that year, she gave birth to a very large child and a "false conception" also came away, according to her doctor's statment. On recovery she felt quite well, but observed that the abdomen was almost as distended as when pregnant at full term. One year and ten months later the patient gave birth to a smaller child (her eighth). Throughout this pregnancy she was never as swollen as in 1886. After delivery, the abdomen remained distended. In April, 1889, she was suddenly attacked with severe pain in the right side of the abdomen, and called in a practitioner. At the end of May she consulted Mr. F. W. Morison, stating her belief that she had a tumour and was as big as at term. The size of her abdomen prevented her from doing her household duties and defæcation was painful.

On examination, the abdomen was found distended as at about the seventh month. The umbilicus protruded. The hypogastric and umbilical regions were occupied by a globose, elastic and freely moveable tumour, dull on percussion and "distinctly fluctuating." The right flank was resonant, the left dull on percussion. The cervix uteri was high in the pelvis and pushed forwards. The posterior fornix was occupied by a round, elastic swelling,

Mériel "Dysménorrhée ovarienne par kyste hématique volumineux de l'ovaire chez une fillette de 14 ans (kyste ménorrhagique)" Comptes rendus de la Soc. d'Obstét. &c de Paris et de la Soc. Obstét. de Toulouse Vol 13 (march 1911) & Annales d'Obstétrique. Pd appeared @ 14, slight & not very voluminous for 3 ms, then painful swelling in rt. iliac fossa. After a few months, the swelling being larger, uterus was explored, no atresia, haematosalpinx diagnosed: Opn 9 ms after first & only show. Removal of an enormous "blood cyst" of the rt. ovary adherent to parietes, omentum & small intestine. Pedicle not twisted. Rt. Fall. tube normal. (The ovary contained black blood & fibrine like "filasse" tow). Left ovary & uterus quite healthy. After the opn the pd was always regular, with "show" - the rt. dis. of the left ovary seemed to have paralyzed the functions of the left ovary.

full of blood, thick blood: there was only a short [illegible] vessel very friable. The B. segment split & the pedicle was cut through by the ligature (no. 4 silk) & I had to suture it across to check hemorrhage. Peritoneum (parietal) was much thickened everything red, including stitch-holes, & though one had any amount of chloroform she was always sick.

If you care to see the specimen, I will send it.

I replaced & operated after four days, but the

Dr Keith ?

Blood-cyst of ovary

Tel. 0893 Royal.

30, Rodney Street,
Liverpool.

Jan 1. 05.

Dear Mr Doran,

I operated today on Nurse Middleton; & as the case was difficult & unsatisfactory, I report it. There was a blood cyst of the L. ovary: the tube was normal, as were the R. appendages. The cyst was as large as a large apple, & burst while being separated from adhesions to colon, rectum & uterus, & was

portent over independently
of friends both on those who
sent her down for operation
so emphatically that I
complied with her wishes
& by our leave.

Believe me, with
many thanks upon
all good wishes for
the new year

Yours truly

G. Bernard Shaw

Alban Brooks

convex towards the vagina and continuous with the abdominal tumour.

Early in June the patient was taken to the Samaritan Hospital, where Dr. Amand Routh and Mr. Thornton examined her. Ovarian cystoma was suspected. She returned home, to await her turn for admission into the hospital. At the beginning of September she informed Mr. Morison that a few days previously she discovered, on getting out of bed, that her abdomen had suddenly diminished in size. Mr. Morison examined her, and found that the abdominal tumour had quite disappeared; resonance was universal within its normal limits, and the abdominal walls were flaccid. On vaginal examination, a mass the size of a billiard-ball was felt high up in the region of the right broad ligament. This mass was not tender to touch, and caused no pain. The patient's health steadily improved.

The patient was admitted in October, just six months after the sudden attack of pain which, as the sequel will show, probably represented the beginning of her illness. The clinical history was complicated, yet most important in relation to the pathology of the case. Fortunately, Mr. Morison preserved the notes which he took during the progress of the patient's illness, and kindly sent me a copy, of which I have availed myself in the above report. The remainder of the case came under my own observation.

On admission the patient's abdomen was found to be distended by fat in the parietes and by flatus, but no tumour could be detected. There was tenderness over the iliac fossæ. The os uteri was large and flabby, the sound passed in for two and a half inches. On the right side and in front was a mass "the size of a small orange," freely moveable and tender. The last period began on September 23rd, 1889.

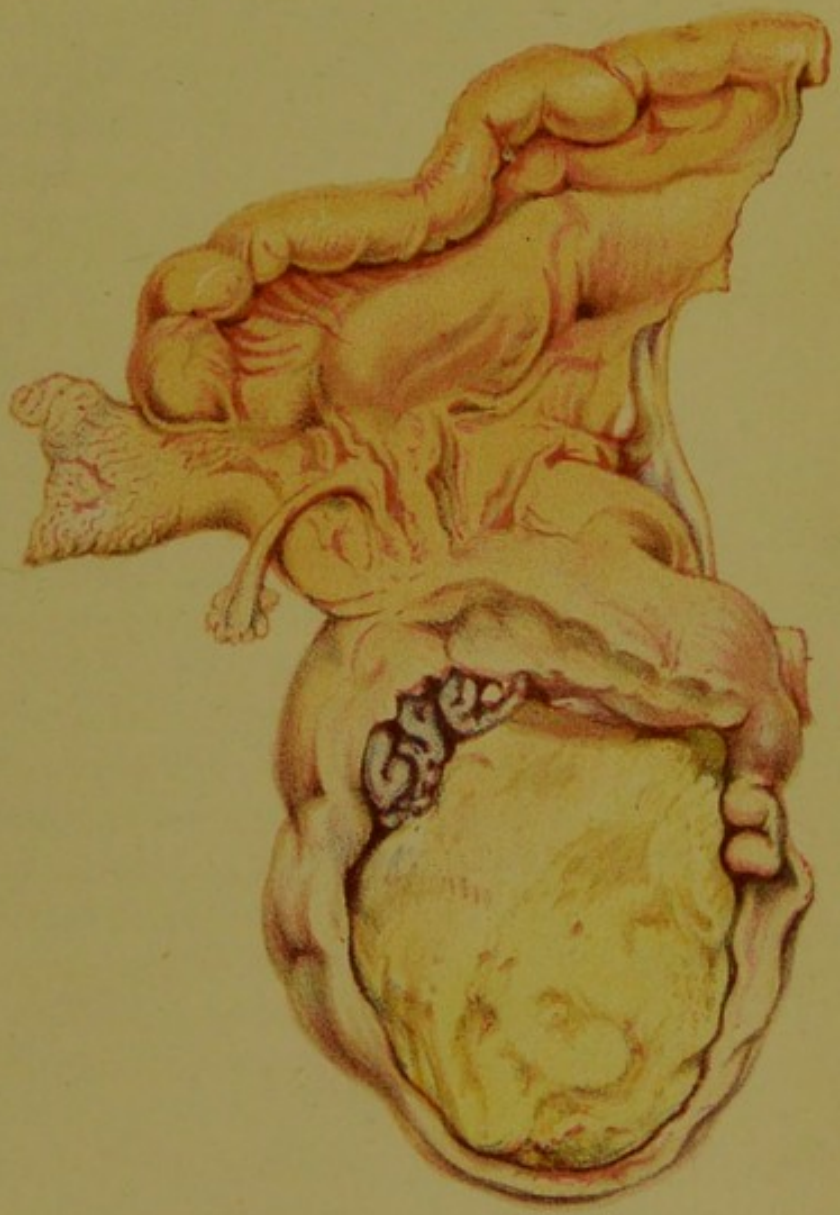
Mr. Thornton operated on October 23rd, and I had the advantage of assisting him, so that I was enabled to note the relations of the tumour and the condition of the parts exposed. An incision three and a half inches in length

was made through fat parietes. An oval body was at once drawn out of the incision without any difficulty, as there were no adhesions. This body had a singular appearance, somewhat resembling a boiled suet dumpling, and at first was suspected to be a pedunculated subperitoneal fibro-myoma, but its pedicle was found to consist of the right Fallopian tube and broad ligament. The uterus was large and soft. The left ovary was healthy and succulent, and contained a large ripe follicle; it was not removed. The parietal and visceral peritoneum appeared perfectly normal. The patient made a good recovery.

The tumour consisted of the right ovary. It weighed two ounces, and measured two inches and a half in vertical diameter, and one inch and five-eighths horizontally. The surface was of a dull drab colour, and puckered so as to present convolutions like the brain of one of the lower mammalia. This appearance is not rare in the big succulent ovaries of healthy young married women. When cut across, the interior was found to consist of a spongy lemon-coloured substance, the ovarian tissue forming a cortex one-eighth of an inch thick. The cavity containing the substance bore a translucent lining membrane; at the uppermost part, nearest the attachment of the broad ligament, was a thick piece of membrane forming zigzag folds, evidently the remains of a large corpus luteum. The appearance of the interior of the ovary, as seen when the specimen was fresh, is well represented by Mr. Lewin's coloured drawing.

The broad ligament bore an accessory fimbria on a long pedicle, which had become separated from the Fallopian tube. Two Graafian follicles projected from the surface of the ovary near the attachment of the broad ligament. Both were much dilated. One, half an inch in diameter, contained altered, almost decolourised clot; the other, one-third of an inch in diameter, contained white, slightly glairy fluid.

After the coloured drawing of the specimen had been taken, the two halves made by a section to expose the



Lewin fecit. West Newman chrom. lith.

APOPLEXY OF THE OVARY:
CYSTIC DILATATION, WITHOUT RUPTURE.

Showing the right ovary with its interior exposed by section. The ovary is reduced to a cavity containing a yellow mass of decolourised clot. The remains of the follicle whence the haemorrhage originally proceeded appear as a folded membrane opening out upon the upper part of the clot. A pedunculated accessory tubal fimbria hangs from the broad ligament. Natural size.

interior of the ovary were placed for a few days in a weak solution of spirit. At the end of that period I found an opportunity of examining the specimen more minutely. A large, single-chambered cavity occupied the interior of the ovary. It was filled with the tough yellow substance already described. The membrane in zigzag folds was deficient towards the yellow substance, so that it partially enclosed a space (resembling in all respects the cavity of a well-formed corpus luteum) which, where not bounded by the membrane, opened out against the yellow substance. On removing the substance from the cavity in which it was embedded in one of the half-sections, the space partially enclosed by the zigzag membrane was found to open out into that cavity. The above appearances indicated the rupture of a mature follicle into the stroma, with subsequent hæmorrhage.

The lining membrane of the cavity which contained the yellow substance, translucent when fresh, became opaque after the immersion in spirit. The membrane was soft and homogeneous; it was apparently half-organised fibrine. Mr. Targett carefully examined the yellow substance, and found that it consisted solely of clot, with no appearance of organization. The general appearance of the diseased ovary and the relations of the corpus luteum to the cavity indicated a pathological condition which bore no relation to incipient cystoma of the organ.

No rent nor cicatrix of a rent, nor any aperture nor fistulous track could be detected on the surface of the ovary. The two dilated follicles bore no cicatrices.

The appearances above described render an explanation of the clinical symptoms simple. I attach but little importance to the history of the patient's seventh and eighth pregnancies. The sudden attack of pain in April, 1889, indicated the rupture of a mature follicle into the ovarian stroma. The consequent distention of the ovary would necessarily entail much suffering. Through some obscure cause, probably morbid softening of the stroma, hæmorrhage took place and continued for some time un-

checked. The ovary became swollen so as to form a tumour apparently the size of a fœtal head.* The surface of the ovary failed to burst, the hæmorrhage ceased, and therefore the distention ceased. A coagulum formed within the ovary and contracted, so that the pain disappeared and the swollen organ steadily became smaller.

Thus the appearance of a tumour in May, 1889, some time after the attack of pain, is readily explained. The tumour was the ovary. It could not very well have been blood-clot free in the peritoneum. Rupture of the right ovary seems out of the question in this case, and hæmorrhage from a burst follicle in the left ovary may be set aside. Free bleeding into the peritoneum would have caused faintness rather than severe pain; but the patient laid stress on the severity of the pain in April, and does not appear to have felt faint. At the operation the peritoneum showed no abnormal appearances of any kind. Had the tumour, detected in May, consisted of a large circumscribed collection of blood in the peritoneum, some trace of the effused blood would certainly have been found during the operation in October. There remains no other explanation of the tumour which appeared in the spring of 1889.

The specimen illustrates the condition known to pathologists by the convenient name "apoplexy of the ovary." Authorities so high as Bernutz and Goupil have already justified the use of that term. They speak of a hæmorrhagic softening which resembles a similar condition preceding cerebral apoplexy. The term "apoplexy" is generally intended to imply rupture of the ovary through the hæmorrhage, but Winckel, one of the latest writers on the subject, applies the term, in his 'Diseases of Women,' to the earliest or mildest forms of the condition in question. "The hyperæmia of the ovaries which accompanies menstrual congestion may be so greatly increased by external causes that not rarely a follicular hæmorrhage as large as

* The abdominal walls were fat, so that the tumour probably felt larger than it really was.

a cherry may be found in the ovary. This *apoplexy* may affect a number of follicles simultaneously."*

Ovarian apoplexy with rupture necessarily involves hæmatocele. It is a rare and very fatal condition. Dr. Matthews Duncan informs me, "I have seen a fatal case of burst ovarian cyst, no bigger than an orange. It never came to a formed hæmatocele, as the woman was found dead or just dying. Hæmorrhage evidently made it burst." The "cyst" was apparently of the same character as in the present specimen.† Bernutz and Goupil‡ describe several cases of ovarian apoplexy with rupture, but the clinical reports (repeatedly quoted by British and American writers from those two authorities) are second-hand, and suffer seriously from want of diagrams. These remarks especially apply to Puech's case, which occurred in days when not only the pathology, but also the anatomy of the ovary were very imperfectly understood. Indeed, Bernutz and Goupil display a wholesome scepticism on some of the pathological reports which they publish. In all the cases which they quote, however, there was clearly rupture of the ovary from hæmorrhage.

Ovarian apoplexy without rupture, as in the present specimen, has been well described by Winckel and

* Since this paper was written my attention has been turned to a good summary of the whole subject of ovarian hæmorrhage by Dr. F. Rollin ('Hémorrhagies des Ovaires,' Paris, Steinheil, 1889).

† See also a case recorded by Dr. W. Brown, of Melrose, where a woman, aged 26, died suddenly on the eve of her marriage. The hæmorrhage was traced to the left ovary, which was "nearly the size of a turkey's egg" ('Edin. Med. Journ.,' vol. i, 1855–6, p. 852). Still more interesting, in relation to the present case, is Dr. Alexander Thomson's "Note of a Case of Rupture of the Ovary following Abortion" (ibid., vol. iv, 1858–9, p. 504). The patient was forty years old, and aborted at the second month. Three weeks later symptoms of intra-peritoneal hæmorrhage occurred and proved fatal. "The right ovary was found to have sustained a linear rupture throughout its entire length. The ovary was not increased in length, and its texture appeared healthy, with the exception of slight induration at one extremity."

‡ "Clinical Memoirs on the Diseases of Women," Dr. Meadows' translation, New Sydenham Society, 1866, vol. i, p. 180.

Olshausen. The former has observed great distention of the follicles from effused blood without "any extravasation of blood into the stroma" in three subjects after death from petroleum-burns; in two after phosphorus poisoning; in three after typhoid fever; in one after cerebral apoplexy; one after tuberculosis; and one after death from cardiac disease.

Olshausen, in his excellent 'Krankheiten der Ovarien,' divides ovarian apoplexy into two varieties, hæmorrhage into the follicles and hæmorrhage into the stroma. In pure examples of the second variety, which follow local congestion and are seen as complications of scurvy, typhoid and other fevers, the stroma becomes converted into a spongy substance full of fluid blood, resembling the spleen.

The present specimen, as proved by the appearances which I have above described, is an example of ovarian apoplexy originating in a follicle, but involving the stroma through rupture of the follicle. Olshausen, who recognises this secondary form of hæmorrhage into the stroma, describes an apparently similar case. "Whilst small apoplexies disappear, as a rule, through reabsorption, and leave no trace behind, large effusions may lead to the partial or complete destruction of the parenchyma,* involving in the latter case the conversion of the ovary into a single cyst, filled with a thick, greasy mass. In the course of a necropsy I recently came across this condition by accident. The ovary, lying in its natural position, was about three times its normal size. The outer wall was thick, no trace of the stroma remained, and the contents formed a very thick, greasy, brownish-yellow mass."

Hæmorrhage into the follicles, Olshausen's first variety of ovarian apoplexy, must often be overlooked. Unless every follicle be involved, it is hard to believe that it necessarily destroys the functions of the ovary. Hæmor-

* Olshausen does not state whether this is caused by pressure of the blood within an unruptured follicle, or by extravasation into the stroma, as in the present case.

rhage into the stroma is more serious, and may end in rupture of the organ. The present specimen represents, therefore, a relatively mild and secondary type of that variety of apoplexy; yet at an early stage of the case rupture of the ovary must have been imminent. Ovarian apoplexy is undoubtedly one of the changes (if not the principal change) which destroys the functions of the ovaries during attacks of certain acute diseases already specified.

Harris. Dr. P. of. "Hematoma of both Ovaries" Amer. Journ. Obstet" Vol L. 1904. p. 119 (Scanty Ref.)

Mendez de Léon: 1) Ein Fall von Ovarialschwangerschaft. Bei einer 31jährigen IIpara, die vor 8 Jahren zuletzt geboren hatte, wurde mit Laparotomie ein gänseeigroßer Tumor des rechten Ovariums entfernt, der makroskopisch auf dem Durchschnitte das Bild eines alten Hämatoms bot. Die mikroskopische Untersuchung von Dr. Hollemann lehrte, dass sich zwischen alten Extravasaten deutliche Überreste fötalen Gewebes nachweisen ließen.

(vide ausführl. account in Mendez de Léon & Hollemann in Revue de Gyn. et de Chir. abd. Aug. June 1902 (Vol VI. p. 390)

Centralblatt f. Gynäk. Aug 17. 1901 p. 954.

Niederländische gynäkologische Gesellschaft, meeting May 19, 1901

Est-il possible?, as Prince George of Denmark would say, that my case was also an example of ovarian pregnancy? no distinct hist. of amenorrh. in April 1899.

See also Ehlermann. "Dangerous intra-peritoneal Bleeding from a Ruptured Ovarian Cyst" Centralbl. f. Gyn. 44, 1902. p. 1347 & Simon "Reine Ovarialschwangerschaft" Centralbl. f. Gyn. 1902. p. 1379.

See back

7) **Vilumara.** Apoplexie des Ovariums.

(Rev. de med. y cir. Madrid 1904. Nr. 827.)

40jährige Pat. Menses schmerzhaft, später Krämpfe bei der Menstruation. Es wurde Exzision des Collum uteri gemacht, jedoch ohne Erfolg.

Verf. fand dann, als er Pat. in Behandlung bekam, retrovertierten, harten, nicht vergrößerten Uterus; rechtes Ovarium vergrößert und schmerzhaft. Verkürzung des rechten Lig. rotundum und Exstirpation des rechten Ovariums. In demselben zwei kirschgroße Tumoren von roter Farbe; die mikroskopische Untersuchung derselben ergibt, daß das ganze Präparat voll Blut ist, das auch zwischen die Gewebsmaschen eingedrungen ist; kein Graaf'sches Follikel zu sehen.

Eiermann (Frankfurt a. M.).

Bender et Marcille "Inondation péritonéale due à la rupture d'un petit kyste folliculaire hémorrhagique de l'ovaire" Bulletins et mem de la Soc anatom. de Paris. July 1904. p 569.

Constantin Daniel "Les petits kystes hémorrhagiques de l'ovaire". Revue de Gyn. et d'Obst. Vol IX (March–April 1905) p 195

Doran. I removed a fibroid with both ovaries in December 1905 (Mrs Green) C. Lockyer noted: "the ovarian blood-cyst is a true corpus luteum haematoma" (It was jammed, under the fibroid, in the left pelvis & Douglas's pouch, & burst as I drew it up. See also my Tables of 60 Subtotal Hysterectomies no 1 "haematoma in left ovary" associated w. fibroid. See also Martin "Krankheiten d. Eierstocks" [illegible], p 184

Smallwood Savage "Haematoma of the Ovary" Brit. Gyn. Journ. Pt 84, Feb 1906. p 285

He quotes Bulle? who makes out only 1 case of haematoma of ovary in 1398 cases of uterine fibroid from statistics of many writers (probably under-rated. I have had at least 2 ~~[illegible]~~ authentic cases, 1 above noted (C. Lockyer & D), 1 is no 1 Tables of 60 subtotal hysterectomies

Wolf "Ueber Hämatoma Ovarii". Arch. f. Gyn. Vol 84. p 211

De Rouville "Hématocèle rétro-utérine par rupture d'un kyste folliculaire hémorrhagique d'un ovaire microkystique présentant des lésions hémolymphangiomateuses". Annales de Gyn et d'Obstet April 1908. p 222.