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JAS. A. GRANT, M.D., F.R.C.S., EDIN.

Consulting Physician General Protestant Hospital,

OTTAWA.

With D^r Grant's Compl^ts.

RE-PRINTED FROM THE CANADA MEDICAL & SURGICAL JOURNAL.

DERMOID CYST OF THE OVARY.

By Jas. A. Grant, M.D., F.R.C.S., Ed.

Consulting Physician General Protestant Hospital, Ottawa.

[*From Proceedings Canada Medical Association.*]

The brief report of the following case of ovarian dermoid cyst, which presents some points of interest, I thought well to bring under the notice of the Association, and more especially as the subject of dermoid tumors is one in which there is still considerable diversity of opinion and is the chief apology I offer for occupying your valuable time, fully aware of what Bryant has so well stated, "*That the publication of isolated "cases, however good, proves nothing, whereas the with-holding "of the whole suggests much.*"

Ann M., æt. 47, married, native of Galashields, Scotland, arrived in Canada 1st May, 1878. Father and mother healthy, the former died at 60 and the latter at 80. According to her own statement she has usually enjoyed good health. Married about 20 years, and had one child, aged 18 years. Labor was very severe and lasted 48 hours, in consequence of which she was obliged to keep her bed for a period of fully three months.

On recovery she experienced no bad effects, excepting a considerable degree of irregularity as to menstruation. About seven years ago she observed that the abdomen was enlarging, but no pain in particular was experienced. About five years ago, her family physician diagnosed a tumor, and advised her to enter the Royal Infirmary, Edinburgh, which she did in October, 1877, under the charge of Dr. Simpson. At this date the tumor had increased to a very considerable size. She remained in Edinburgh until March, 1878, at which date she returned home. While in the Infirmary, the tumor discharged a quantity of serous fluid twice, from an opening at the umbilicus, from which spontaneous result she experienced considerable relief. The quantity of fluid which escaped during the first discharge was about six quarts, and the second, fully four quarts. Shortly

after leaving the Infirmary there was a third discharge of about four quarts. August 25th, 1878, in consequence of considerable inconvenience and moderate suffering and at the earnest solicitation of Mrs. M., she was admitted as a patient into the Ottawa General Protestant Hospital. I examined the case most carefully, as from the history, it presented unusual features of interest. She was much larger than a person at the full period of pregnancy, and the abdomen presented no enlarged or dark-colored veins, such as frequently observed in fibro-cystic uterine tumors. There was a dull percussion sound generally, but no solid deposit anywhere in particular. The abdomen was moderately soft and elastic in its entire extent, and fluctuation could be detected without any difficulty. On examination, per vaginam, the uterus and bladder presented no abnormality, beyond what was the result of an unusual degree of pressure. The rectum was healthy, and in the pelvic viscera, no indication of malignant disease, thus supporting strongly the outward signs, as to the absence of organic cancerous change of structure being in progress in any part of the system. The results from a careful examination of the heart, liver and kidneys, were quite satisfactory.

After consultation of the hospital staff, the 29th was appointed for operation, which was decided upon at the request of the patient. Chloroform being administered, the usual incision was made through the abdominal walls, which were quite thick and fatty, and the structure of the tumor in the mesian line sufficiently exposed to define in a degree its character. The large trocar of "Spencer Wells" was used ineffectually, the contents of the cyst being too viscid and dense to flow through the canula, which being removed at once gave forcible exit to the chief liquid contents of the tumor. The cavity of the cyst being well exposed by a free incision, was entered by the hand and the contents removed down to either side of the uterus, no perceptible tumor being observed during the entire exploration. The sac or cyst was attached by its entire posterior surface to intestines, abdominal walls, pelvic surfaces, and in fact to all the contiguous structures, no portion of intestine being at any time visible. The entire contents, weighing fully

25 lbs., and having somewhat the feel of *bran mash*, were carefully removed with the hand and the cavity sponged out with warm carbolized water; the incision closed with silk sutures, and over the adhesive plaster, a compress, saturated in carbolized water, protected by a thick layer of cotton batting, the whole held in position by a firm flannel roller. The operation was not in any way complicated by either bleeding or vomiting, and owing to the peculiar character of the case, occupied a shorter time than previously anticipated. A large-sized india-rubber drainage tube was passed deep into the cavity of the sac, and free vent given to its external end by an opening through the entire dressing, thus affording escape to any accumulating secretion, and an opportunity for repeated washings, which were found to be of great importance, throughout the treatment. The quantity of purulent fluid which escaped from time to time was very considerable, but by regulated pressure over the abdominal walls, the frequent injection of warm carbolized water into the drainage tube, and supporting the system by milk diet, beef tea, quinine and iron, and occasional stimulants, the discharge lessened gradually, and the constitution gained in strength as it changed from the serous character to that of laudable pus. For fully two weeks prior to leaving hospital, very little discharge was observed, beyond what would moisten the light dressing at the time. The india-rubber tube was gradually shortened as the sac closed, and at the end of the fourth week was entirely removed. The incision healed throughout the greater part by first intention, and the left side of the sac was the chief source of difficulty, the right affording very little discharge indeed. Returned to her home 28th October, 1878, since which date enjoyed very good health and performed her usual household duties with comparative comfort and freedom.

The contents of the tumor presented a dark grayish appearance, quite thick, and having long black hairs scattered throughout in various directions, but not any bone structure or teeth. On closer examination it presented the usual constituents: free fat, pavement epithelium, fatty cells, and crystals of

cholestearine, having a glittering appearance, the whole saturated in a thick quasi-gelatinous fluid, quite devoid of odor.

Remarks.—During the progress of this case but two important complications took place: septicæmic symptoms and dysentery. September 23rd, on entering the hospital ward there was an unpleasant odor from the discharge, which was of a dark brown fluid character, and more copious than usual. During the night of the 25th September, there was also an attack simulating unilateral mumps. Temperature 103°; pulse 96; all of which pointed to *septic poisoning*. On careful examination, moderate bulging was observed below the left hypochondriac region, and on firm pressure over this space, quite a quantity of fœtid, thin, dark-colored matter escaped, both through the tube and the opening, the patient at the same time being turned upon her side, so as to make the drainage as efficient as possible. At this stage of the case the stomach was very irritable, and even the milk diet was retained with considerable difficulty. By constant care and frequent dressing, the septicæmic symptoms yielded and the swelling in the neck gradually subsided by the application of warm poultices. The dysenteric attack, which took place on the 18th October, was only of short duration and gradually yielded to treatment. The daily register of the House Surgeon, Dr. McKinnon, conveys more than I could otherwise express. The history of this case, from the fact that on three separate occasions a quantity of fluid escaped, by a communication established through the abdominal walls, evidently pointed towards "*dermoid cyst*" of the ovary. This, however, I had not anticipated, and having been taken unawares, had recourse to the method of treatment adopted under the circumstances. Barnes' Clinical History (Diseases of Women,) p. 338, says: "So long as the fluid is confined in the ovarian cyst it is beyond the influence of absorption." The converse, however, is not unlikely, when suppuration takes place after operation, as in the present instance. The transmission of septic influence to distant parts, such as the glands of the neck, (the peritoneum, on which the very sac rests, being thus passed over,) is a point of much

interest, and more especially so, when we consider the rapidity with which the poison of scarlet fever or other zymotic influence, centres on the parturient peritoneum. The power of accommodation may here be at work and the very strain the result of contiguous abnormal adhesion, so have modified susceptibilities as to render the parts less liable under these circumstances to direct inflammatory action. Gross (System of Surgery, p. 931,vol. 4,) remarks: "One of the great obstacles to success in ovariotomy, grows out of the difficulty, if not utter impossibility, in many cases in arriving at a correct diagnosis, no matter what pains may be taken in the investigation, hence it is not surprising that in at least three-tenths of the cases subjected to the knife, the operation had to be abandoned, while in quite a number of others no ovarian tumor of any kind was found." Again, p. 931, he states: "I should consider an operation as unjustifiable when the tumor, *whatever* be its structure, is strongly and extensively adherent." Thomas (Diseases of Women, p. 700) states: "Although such tumors are innocuous, and not likely to increase rapidly or attain any great development, they sometimes set up very serious and even fatal disturbance—the case in point being one of the three varieties defined, viz., the cyst which contained the histoid elements, secreting fluid and changing its character to that of a fluid or rather semi-fluid character. In such cases, he is of opinion, no treatment is required, since none would be at all effectual except extirpation. This would be eminently inadmissible, since there are not sufficient dangers attendant upon the tumor to warrant a resort to so hazardous a procedure. Dr. Graily Hewitt records a case in which Dr. Alexander Simpson injected with iodine, but not with a favorable result. Dr. Atlee, on Ovarian Tumors, p. 183, records a case of Dermoid Cyst, in which, by passing a sound into the cavity of the cyst through an umbilical opening, the diagnosis was determined, and an operation for the extirpation of the tumor was pronounced impracticable, and consequently abandoned. Subsequently iodine was injected by Dr. Hayes, however, with no favorable result. Page 180, a second case of dermoid cyst is recorded by Dr. Atlee, which being diagnosed by paracentesis, all idea of extir-

pation was abandoned, death taking place shortly afterwards. In the former, *post-mortem* examination demonstrated very extensive adhesions; in the latter, no after examination was made. Barnes (Clinical History of the Diseases of Women, p. 334) says, "These tumors are exceedingly apt to contract intimate adhesions with the viscera amongst which they are imbedded." And again, p. 340, two cases of much pathological interest are recorded from Guy's Hospital Museum, in which the possibility of an "ovarian cyst" healing after rupture was most carefully demonstrated, thus clearly supplying a *post-mortem* verification of vast importance. 'Tis true, these were ordinary ovarian cysts, not of the dermoid character; still, the manner in which, in these cases, spontaneous rupture and subsequent cicatricial power effected a cure is marvellous evidence of the method in which *nature* heals, and a stimulus to carry out in practice the lessons deduced from such spontaneous efforts. Bryant, p. 679, records a case from Guy's Hospital Reports for 1868, in which a woman æt. 34 was successfully treated in a case of extensive adhesion, by turning out a considerable portion of the parent cyst, and the remaining part stitched to the margins of the wound, a drainage tube used, and the suppurating cavity washed twice daily. This was an ordinary ovarian cyst, with partial evacuation of the contents. Byford, in the Transactions of the American Gynecological Society for 1878, records four cases of recovery after operation in Dermoid Ovarian Tumors; in all of which there was no recorded complication from adhesions; and Dr. Hingston, of Montreal, has informed me that such was his experience in some cases of dermoid tumor that came under his observation.

From these various facts, we observe, there is considerable diversity of opinion even with the master minds of the profession, and in those cases of doubt and uncertainty, we must be guided by surrounding circumstances. As to the histology of dermoid cysts, the profession is much indebted to Dr. Julius Pauly, of Zduny, Prussia, and Dr. Byford, of Chicago, for their recent contributions, which may be considered as valuable additions to the writings of the various authors who have already achieved a well known celebrity.