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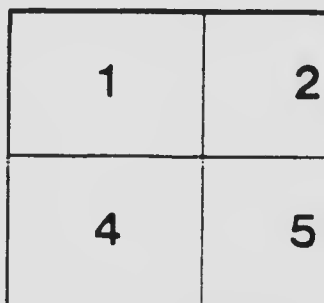
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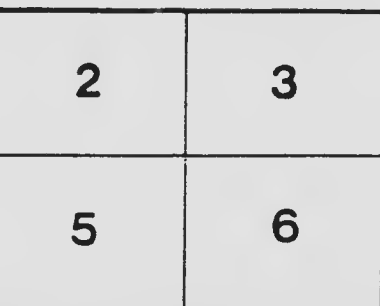
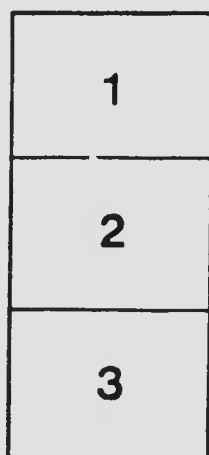
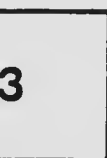
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ADENOMYOMA OF THE ROUND LIGAMENT AND INCARCER-
ATED OMENTUM IN AN INGUINAL HERNIA, TOGETHER
FORMING ONE TUMOR

BY THOMAS S. CULLEN, M.D., F.A.C.S., Baltimore, Maryland

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ADENOMYOMA OF THE ROUND LIGAMENT AND INCARCERATED OMENTUM IN AN INGUINAL HERNIA, TOGETHER FORMING ONE TUMOR¹

BY THOMAS S. CULLEN, M.B., F.A.C.S., BALTIMORE, MARYLAND

FOR many years isolated cases of adenomyoma of the uterus have been recorded, but it was not until the epoch-making monograph on the subject published by von Recklinghausen that we were given a thoroughly comprehensive picture of this condition. In March, 1895, I reported my first case of adenomyoma of the uterus, before the Johns Hopkins Medical Society; since then I have been much interested in adenomyomata.²

In 1896 it fell to my lot to record the first case of adenomyoma of the round ligament. At this time I sent Professor von Recklinghausen a slide from the round-ligament tumor and when writing me a short time later he said that he had shown my section before the Naturforscher Versammlung at their Frankfurt meeting. Since that time quite a number of adenomyomata of the round ligament have been detected.

When analyzing the umbilical tumors recorded in the literature I encountered quite a number that had been variously diagnosed. These tumors were found only in women, tended to swell at the menstrual period, and occasionally discharged a little blood at the period. Some of them contained small spaces filled with old blood. These tumors may be adenomyomata of the umbilicus. Girdard belongs the credit for first properly interpreting these tumors.

More recently adenomyoma of the rectovaginal septum has been noted. Cuthbert Lockyer and Jessup have each recorded two cases and I have had four. In 1899 my colleague, Dr. William W. Russell³ reported

²Cullen, Thomas S. Adenomyoma of the round ligament, Johns Hopkins Hosp. Bull., 1896, May and June, Nos. 62 and 63. Adenomyoma uteri diffusum benignum, Johns Hopkins Hosp. Reports, 1896, vi. Further remarks on adenomyoma of the round ligament, Johns Hopkins Hosp. Bull., 1898, No. 87 (June); Adenomyoma des Uterus, Verlag von August Hirschwald, Berlin: 1903; Adenomyoma of the Uterus, 1908; Adenomyoma of the uterus, J. Am. M. Ass., 1908, January, 1, 107; Umbilical tumors containing uterine mucosa or remnants of Mueller's ducts, Surg. Gynec. & Obst., 1912, May, 470. Adenomyoma of the rectovaginal septum, J. Am. M. Ass., 1914, Jan., 237.

³Russell, William W. Aberrant portions of the Muellerian duct found in an ovary. Johns Hopkins Hosp. Bull., 1899, 2, 8.

¹From the Gynecological Department of the Johns Hopkins Medical School and of the Johns Hopkins Hospital. Read before the Southern Surgical and Gynecological Association, Cincinnati, December 13-15, 1915.

a case in which a large amount of uterine mucosa was found in the hilum of the ovary. In this instance, however, no myoma existed.

From the foregoing, it will be seen that we may find adenomyoma in the uterus, round ligaments, rectovaginal septum, or in small umbilical tumors.

Nearly three years ago I encountered another adenomyoma of the round ligament. Of this case I herewith give a brief report:

Mrs. J. C. J., aged 43, was referred to me by Dr. N. C. Trout, of Fairfield, Pa., and admitted to the Church Home and Infirmary March 6, 1913. She had complained of a lump in her groin for several years. This was very firm and appeared to be cystic. It was about 4 cm. long, 2 cm. broad, and somewhat lobulated (Fig. 1). She also complained of pain in the appendix region.

Operation. I first made a median incision and found the rectum firmly adherent to the left ovary

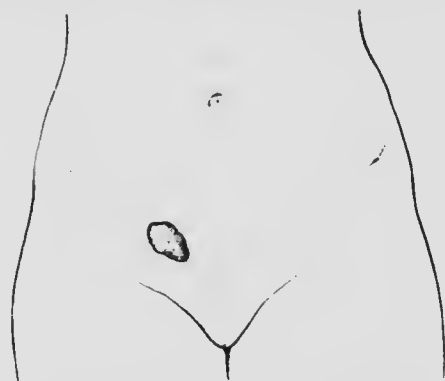


Fig. 1. Adenomyoma of the round ligament and incarcerated omentum contained in an inguinal hernia, together forming one nodule.

Gyn.-Path. No. 19,018. The nodule lay a little above Poupart's ligament. It was 4 cm. long, 2 cm. broad, and somewhat lobulated. It was perceptibly larger at each menstrual period. At operation the upper part of the tumor was found to be very dense and intimately blended with the fascia. It contained cyst spaces, some of which were filled with chocolate-colored fluid. The lower portion of the nodule consisted of omentum which had emerged at or near the internal inguinal ring. The histological appearances are shown in Figs. 2, 3, and 4.

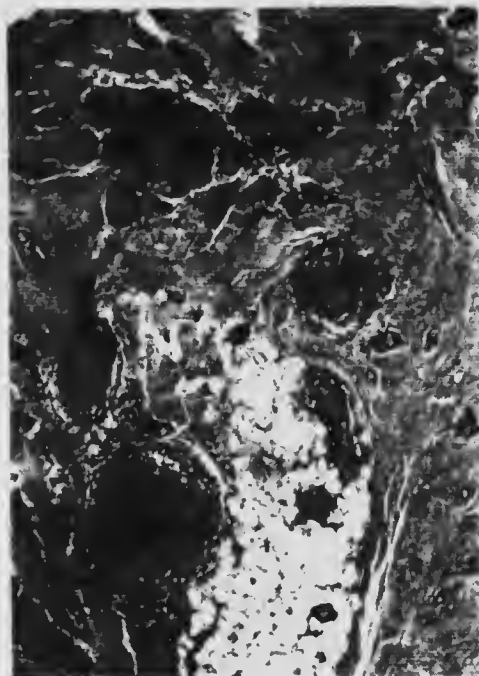


Fig. 2. Apparently discrete myomatous nodules in an adenomyoma of the round ligament. Gyn. Path. No. 10,018. The greater part of the specimen stains diffusely. It consists chiefly of fibrous tissue and contains non-striped muscle. It will be noted that the adipose tissue at the bottom is being irregularly replaced by fibrous tissue. There are three distinct areas that have a whorled appearance. They form a roughly triangle in the picture. These areas are very cellular, and closely resemble young myomata. They may possibly, however, be very cellular areas of the characteristic stroma that usually surrounds uterine glands.

over a considerable area. The adhesions were gradually loosened and the r. w. area on the bowel was closed. The lumen was not injured. I then examined the omentum and found that it passed down through a hernial opening near the right internal inguinal ring and then directly out into the adipose tissue of the anterior abdominal wall. The omentum was cut off at the internal ring, tied, and pushed out of the way. The extraperitoneal portion of the omentum was left undisturbed. The peritoneum over the internal ring was now closed from within. I then removed the appendix which showed evidence of old inflammation, there being present adhesions passing off from it in various directions.

After closing the abdomen I made an incision over the tumor in the right inguinal region. This



Fig. 3. Adenomyoma of the round ligament. Gyn. Path. No. 10,018. The solid portion of the specimen consists of non-striped muscle and fibrous tissue. A little below the center of the field is a gland lined with one layer of cylindrical epithelium. In some places it is separated from the tumor proper by a definite stroma.

Projecting from the surface on the right of the specimen is a dome-shaped mass of tissue very rich in cells with oval nuclei. This tissue is identical in every way with the characteristic stroma of the uterine mucosa. In the lower part it contains a small gland lined with one layer of cylindrical epithelium. The surface of this dome-shaped mass of stroma is covered over with one layer of cylindrical epithelium.

The entire picture is that of a typical adenomyoma. The dome-shaped mass of mucosa evidently projected into one of the cyst cavities noted macroscopically.

tumor was adherent to the skin. The skin was dissected back and the mass literally cut away from the fascia. There were numerous cysts, some filled with clear contents, others with a slightly turbid fluid, and quite a number with chocolate-colored fluid, strongly suggesting adenomyoma. Adenomyoma was considered probable, some stress being laid upon the declaration of the patient that the lump appeared to increase in size at each menstrual period. After dissecting away the lower portion of the tumor, which was also adherent to the fascia, I now lifted up the omentum from the hernial opening. The hole left near the internal ring was slit-like in form, about 1 cm. long and 4 mm. broad. It was closed with kangaroo tendon. To dissect back the fascia, and do an orthodox operation



Fig. 4. The lining of a cyst in an adenomyoma of the round ligament. Gyn. Path. No. 19,018. The tumor consists of fibrous tissue and non-striated muscle. The inner surface of the cyst was undulating and had numerous depressions running off from it. These depressions may with equal propriety be described as glands. The cyst is lined with one layer of cylindrical epithelium, which at the more prominent or exposed points has become cuboidal.

was out of the question, because of the large defect that would have been left. At most points good firm scar tissue existed. I closed the wound with through and through silkworm gut sutures; accurate skin approximation was made with fine black silk. The lower angle of the wound was drained with protective. The patient made a good recovery.

On December 8, 1915, Dr. Trout wrote me, saying that he had just spoken to the patient. She has had no return of the trouble, is free from pain, and has gained twenty pounds.

Gyn. Path. No. 19,018. The outlying portion of the tumor consisted of fat with here and there yellowish or brownish pigmentation, suggesting the pigment of old hæmorrhage. The central portion of the tumor closely resembled fibrous tissue. It

had cystic spaces scattered throughout it. The contents of these varied, as noted above, some being clear, others turbid, and some being filled with chocolate-like material.

Histological examination. The outlying portion of the specimen consisted of adipose tissue. As one passed toward the tumor, the fat was gradually and irregularly replaced by fibrous tissue, which in many places had undergone almost complete hyaline transformation. Scattered here and there throughout the fibrous tissue were large or small areas of non-striated muscle. Several very small discrete myomata were also noted (Fig. 5). At numerous points in the tumor were glands, tubular or round and lined with one layer of cylindrical epithelium (Fig. 3). Some of the glands lay in direct contact with the fibrous tissue or muscle, others were separated from the tumor by the characteristic stroma of the mucosa. The cyst spaces noted macroscopically were lined with one layer of cylindrical epithelium (Fig. 4).

From the description it is perfectly clear that this was an adenomyoma of the round ligament associated with a large amount of fibrous tissue. From a clinical standpoint the coexistence of a small inguinal hernia with incarcerated omentum and an adenomyoma of the round ligament is very interesting. The increase in size of the inguinal nodule at the period naturally made me suspicious of adenomyoma, and the indications supplied by the presence of old pigment in the fat at operation, coupled with the fact that some cysts contained chocolate-like material, justified a tentative diagnosis that the tumor was an adenomyoma even before the microscopical examination. I have not as yet gone over the recent literature, but do not know of any other case in which an inguinal hernia and an adenomyoma were found in the same hernial protrusion.

