

SEQUESTERED OVARIAN DERMOID COMPLICATING PREGNANCY

(A Case Report)

by

JAGDISH CHANDER,* M.S. (Pb.)

and

VIJAYA SHARMA,** D.G.O. (LKO.)

Dermoid cysts are common (85%) in reproductive age group (Gracy *et al* 1972) and are commoner on the left side. The incidence of this neoplasm complicating pregnancy is reported as 1 in 102 (Patton, 1906), 1 in 2500 (Faik and Bunkin, 1947), 6% (Peterson, 1955) and 0.6% (Booth, 1963). In pregnancy ovarian cysts are unilateral in 95% cases and left ovary is more often affected but Haas (1949) found the cysts common on the right side. The cyst is bilateral in 4.2% (Hofmeister *et al* 1956) to 25% (Novak and Woodruff, 1968) of cases. 36% of the cysts appearing in pregnancy are physiological and about 40% are neoplastic (Haas 1949). Cysts of less than 5 cm in size, felt in pregnancy, are mostly physiological in origin and regress automatically by the middle of second trimester and those persisting after this are usually neoplastic and should be surgically treated.

Dermoid cysts remain quiescent for years. Their growth is slow as they are basically retention cysts. Malignancy in a dermoid cyst occurs but rarely and the commonest malignant change is epidermoid carcinoma. Axial rotation and

torsion of the dermoid cysts is relatively common and occurs in about 10% of diagnosed dermoid cysts. Rarely, the twisted ovarian cyst may get sequestered due to extreme torsion. The present paper presents a case of sequestered left ovarian dermoid during pregnancy. The condition being extremely rare, is reported.

CASE REPORT

Mrs. B. K., a 30 years old multigravida, was admitted in the District Hospital, Udhampur (J & K state) on 14-1-74 at 7 A.M. with labour pains for the last 24 hours. Moreover, she was suffering from acute pain on the left side of her abdomen. Pregnancy was of full term duration with the foetus in vertex position and the head was fixed. Foetal heart sounds were 146 per minute and regular. There was a firm, tender, intraabdominal, ill-defined mass of the size of a cricket ball, separate from the uterus, in the right lumbar region. It was fixed and did not move with respiration. Its surface was smooth and margins ill-defined. It was dull on percussion. Vaginal examination showed the cervix to be fully taken up and dilated to about 10 cm. Membranes were absent and the head was low. Pelvis was otherwise roomy.

General Examination—She was well built and nourished with slight oedema on both the feet. She was febrile (40°C) and her B.P. was 118/70 mm of Hg. Her respiration rate was 28 per minute and pulse rate was 102 per minute. Urine examination showed traces of albumin but no sugar. T.L.C. was 12000 with P 76%, E 4%, L 19% and mono 1%. Her Hb was 12 Gm% and blood group was 'O' Rh positive.

*Surgical Specialist, District Hospital, Udhampur (J & K).

**Chief Resident, Queen Mary's Hospital, Lucknow (U.P.).

Received for publication on 26-8-74.

Menstrual History—She attained menarche at the age of 15 years. Her menstrual cycles were regular 3-5. Her last menstrual period was on 7-4-1973.

Obstetric History—She was 7th gravida with previous 6 F.T.N.D. Last delivery was 2 years ago. All the children were alive and healthy.

She delivered a live male baby weighing 7 Lbs on 14-1-1974 at 12-30 p.m.

History of Present Illness—About 12 hours before admission, she experienced a sudden excruciating pain in the left lumbar, left iliac fossa and epigastrium in that order. She later felt a painful mass in the left lumbar region. After about half an hour the acute pain subsided but dull aching sensation persisted. About six hours before admission she again had similar bout of acute pain but in the epigastrium and right lumbar regions which persisted upto the time of her delivery. Immediately after she delivered, the acute abdominal pain abated but the lump as described previously persisted in the right lumbar region. Post-partum period was uneventful.

History of Past Illness. About 14 years ago patient started getting dull aching pain, dragging in character in the left side of her lower abdomen. Pain used to become acute during the previous pregnancies, especially during labours. In between pregnancies she could feel a mobile rounded mass in the left side of the abdomen. About 8 years ago she was diagnosed as a case of left sided ovarian tumour by some doctor. But due to some unavoidable circumstances she had not agreed for an operation then.

Two years ago, she developed an active tubercular lesion in the apex of the right lung with involvement of the intestines for which she was treated with antitubercular drugs. While under antitubercular treatment, she got pregnant. The complications which this ovarian tumour might cause in pregnancy and labour were explained to her but she did not agree for an operation. She continued to get recurring attacks of acute pain in her left lumbar and left iliac regions accompanied occasionally by nausea and vomiting. Tender rounded swelling could then be easily palpated in the left side of the abdomen (Attacks of torsion).

Operative Notes. On 21-1-1974, vaginal examination revealed no abnormality. Abdominal examination revealed a mass in the right lumbar

region as described before but now it was no so tender. Fundus of the uterus was palpable about 2½" above the symphysis pubis. No abnormality was detected on general examination. As she was willing for sterilization, laparotomy was performed through the right lower paramedian incision on 24-1-1974. There was straw coloured free fluid in the peritoneal cavity. Uterus had not fully regressed in size. Right fallopian tube and the ovary were absolutely normal. Partial salpingectomy was performed on the right side. The left fallopian tube and the ovary were absent. About 2½" stump of the left fallopian tube was still attached to the uterus to which a few coils of ileum were adherent. After separating the adhesions, the stump of the left tube was ligated and peritonealized.

On exploring the abdominal cavity a lump about the size of 3½" diameter adherent wrapped in the greater omentum was detected in the right lumbar quadrant. It was adherent to the ascending colon and a few coils of small intestines. The lump was gently separated from the ascending colon and the small intestines and left ovariectomy was done tumour was 'enucleated' from its artificial surroundings (Fig. 1). Appendicectomy was also done and the abdomen was closed in layers. The patient made an uneventful recovery and was discharged on 4-2-1974.

Description of the removed ovarian Cyst

It was oval in shape with smooth surface. Its consistency was firm to cystic. Size 6 cms x 5 cms (Fig. 2). Cut section: It was unilocular cyst which was full of hair. It contained thick, yellow and greasy pultaceous material. A bony structure, irregular in shape and 2 cms x 1½ cms in size, was attached at one place on the inner aspect of the cyst wall. The site where this bony piece was attached was thickened as compared to the rest of the cyst wall. (Fig. 3). Microscopic characters of the cyst are shown in Fig. 4.

Discussion

Diagnosis of the ovarian cyst is easier in the first trimester and may be difficult in later months (Grimes *et al* 1954) as after the first trimester, cyst is drawn up into the abdomen by the enlarging uterus. Plain x-ray of the abdomen is

essential and it can diagnose dermoid cyst in 50% of the cases when teeth, bone or calcification is present in the growth. In our case no calcification or teeth could be detected in the plain skiagram of the abdomen.

The complications which arise during pregnancy in a preexisting ovarian cyst are obstructed labour, haemorrhage into the cyst, suppuration, torsion, sequestration, rupture and peritonitis. All these together have a mortality of 26% (Patton, 1906). In order to obviate such eventuality, these cysts must be diagnosed early and should be removed as early as possible. Elective operation should be preferred otherwise one might be forced to operate in the face of emergency due to some complication in the cyst. As regards the optimum time for removal of such cysts, there is a little controversy. Majority of the workers favour its removal after the 16th week of pregnancy as at that time placenta is fully developed and is securely attached to the uterine wall.

Axial rotation and torsion of the ovarian dermoid is fairly common. The aetiology of torsion of the ovarian dermoid is unknown. Violent movements, accidents, their rounded shape and apt size and the greater density of their contents have been incriminated. Haemodynamic theory of torsion is most logical. Partial twisting may occur due to any cause which later may increase due to arterial pulsations. This is a slow process and acute symptoms manifest only when the veins in the pedicle get occluded. If the tumour is not operated upon at this stage, adhesions form around the tumour. Very rarely pedicle atrophies due to extreme twisting and the tumour gets detached, becoming a loose peritoneal body. Later it gets adherent to some intraabdominal structures. This

is what had happened in the present case. There is a possibility of intestinal obstruction occurring later if the sequestered cyst is not removed.

Old standing cases like that of ours contain pseudo xanthoma cells i.e. 'foamy' cells (Fig. 4).

Summary

A rare but interesting case of sequestered left ovarian dermoid complicating pregnancy is presented. Mechanism of torsion and severance of the cyst and its implantation intra-peritoneally and its new site is discussed. Operation for the cyst in pregnancy is a controversial subject. Each case should be dealt with according to its individual merit. Operation before the 16th week of pregnancy does not occasion miscarriage if injury to the uterus is carefully avoided. The literature on the subject is briefly reviewed.

References

1. Booth, R. T.: J. Obstet. & Gynec. Brit. Emp., 21: 189, 1963.
2. Faik, H. C. and Bunkin, I. A.: Am. J. Obstet & Gynec. 54: 82, 1947.
3. Gracy, R., Hari Lal, K. R., Chinnamma, K. K. and Thangavelu, H.: J. Obst. & Gynec. of India, 22: 309, 1972.
4. Grimes, W. H., Jr., Bartholomew, R. A., Colvin, E. D., Fish, J. S. and Lester, W. M.: Am. J. Obstet. & Gynec., 68: 594, 1954.
5. Haas, R. L.: Am. J. Obstet & Gynec. 58: 283, 1949.
6. Hofmeister, P. J. and Miller, J. P.: J. Obstet & Gynec. Brit. Emp., 7: 684, 1956.
7. Patton, C. L.: Surg. Gynec. & Obstet., 3: 413, 1906.
8. Peterson, W. F.: Am. J. Obstet. & Gynec. 72: 1094, 1955.
9. Teilum, G.: Acta Obstet & Gynec. 76: 773, 1940.
10. Novak, E. R. and Woodruff, J. D.: Gynaecological and Obstetric Pathology, Ed. 6th, London, 1968, W.B. Saunders Company.

See Figs. on Art Paper IX