

HYDATID CYST OF THE BROAD LIGAMENT

by

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Although hydatid disease is essentially a public health, medical and surgical problem, sometimes it may pose as an gynaecological diagnostic puzzle too. The Greek word "Hydatid" meaning a drop of water, aptly describes the macroscopic condition (Reddy and Raju 1974). The parasite in question is the tape worm or echinococcus. The lesions are usually localised in the liver, lung and brain (Reddy and Sharda 1966).

Although this disease is said to be prevalent mostly in the sheep-rearing countries like South Australia, North America and Iceland, it is not uncommon disease in India (Chakraverti *et al*, 1974). This condition is more common in females particularly in middle age group (Upadhyay *et al*, 1974); yet the incidence in female pelvic organs is quite low—which ranges from 0.2 per cent (Craig and Faust, 1951) to 2 per cent only of the total hydatid cysts (Chatterjee, 1950). Parikh and Parikh (1966) reported 2 cases of hydatid cyst of uterus diagnosed during caesarean section. Devi (1955) reported a case where hydatid cyst of uterus acted as a cause of obstructed labour. Sarojini (1962) reported a case diagnosed as fibromyoma of uterus. Chanda and Singh (1964) diagnosed a case of hydatid cyst of the broad ligament as malignant ovarian tumour. Narayan

Rao (1965) reported a collection of 9 cases of hydatid cyst of broad ligament—all diagnosed during laparotomy. Chakravarty *et al* (1970) reported a case where hydatid cyst of broad ligament provisionally diagnosed before laparotomy as a case of pedunculated fibromyoma of uterus.

The present report deals with an interesting case of hydatid cyst occurring in the broad ligament which was diagnosed as an ovarian cyst possibly undergoing malignant change.

CASE REPORT:

Mrs. M. B., a Muslim female, aged 50 years, para 3 + 0, was admitted in the Eden Hospital, Medical College, Calcutta on 11-8-75 with the following complaints:

- (1) Swelling of lower abdomen for 8 months.
- (2) Pain in the lower abdomen for the same duration.
- (3) Loss of appetite for 6 months.
- (4) Gradual loss of weight for 6 months.

History of present illness:

The onset of the disease was insidious. The patient noticed a small swelling in the right iliac fossa 8 months back. It was slowly increasing in size for the first 6 months. Subsequently, it increased quite rapidly during the last 2 months, filling almost whole of the lower abdomen. There was almost complete loss of appetite. She had been losing weight constantly since January last. She had never had an attack of fever or jaundice during this period.

Menstrual History:

Age of onset: 13 years. Past cycles, 30 days duration, flow 4-5 days: Menopause since 1970. Obstetric History: 3 F.T.N.D. Last delivery, 20 years ago.

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Past Medical History: Nothing significant.

Family History:

One of her close relations (husband's nephew) suffered from hydatid cyst of the liver and was operated in S.S.K.M. Hospital in 1972.

Personal History:

Husband's occupation—farmer, living in joint family, looking after quite a few domestic animals like cattle, sheep and dogs.

Physical Examination:

General condition—fair, thin built, nutrition—poor; Pallor +; oedema of legs—nil; pulse—80 per minute. Respirations—20 per minute. Temperature—normal. Blood pressure—140/90 m.m. of Hg. Heart and lungs—nil abnormal. Liver and spleen, not palpable.

Per Abdomen:

There was a cystic swelling about the size of 30 weeks pregnant uterus occupying almost whole of the lower abdomen and lumbar region. It was uniformly cystic in consistency with lobulated surface and restricted mobility. There was slight tenderness on palpation without any evidence of free fluid in the peritoneal cavity; fluid thrill was absent.

Pelvic Examination:

Uterus was smaller in size and pushed behind and to the opposite side by a huge cystic mass arising from the right fornix. Left fornix was clear. There were no hard nodules in the pouch of Douglas.

A Provisional Diagnosis of ovarian tumour was made and Laparotomy was decided upon.

Investigations done:

Blood Examination: Hb. 9.2 gm.% W.B.C. total count—8,100 per cmm. D.C.: Poly—57%, lympho—30%, eosino—10%, mono—3%. Blood for V.D.R.L.—Negative. Urea—28 mg. per cent. Cholesterol—180 mg. Sugar (fasting)—102 mg.%; Postprandial—124 mg.%.
Chest X'Ray (Postero-Anterior view)—no abnormality detected.

A Laparotomy was undertaken on 16-8-75 with right paramedian incision. A huge cystic mass was detected arising from pelvis separated from uterus and ovary, but attached to the right broad ligament, upper limit extending up to hepato-renal pouch. Left fallopian tube and

ovary were healthy. The cyst was enucleated by making incision over the capsule without causing any damage to ureter or any other structure.

The cyst could be shelled out from in between the layers of the broad ligament. Multiple daughter cysts found inside the main broad ligament cyst which extended upto the liver bed. The raw liver surface after removal of the cyst had to be stitched. Panhysterectomy was also performed as there were raw oozing areas around the uterus after removal of the broad ligament cyst. It was further justified as the patient was aged 50 years.

The abdomen was closed in layers, keeping one rubber drain on the right side just below the liver bed. The latter was removed after 48 hours. Total 3 bottles of blood of 'B' group were transfused.

Postoperative period was uneventful, except a severe anaphylactic shock which the patient developed on the 2nd postoperative day. It could be checked by heavy dose of corticosteroid. Stitches were removed on the 8th postoperative day and union was satisfactory. The patient was discharged on 2-9-75 (Fig. 1).

The patient came for follow-up study on 25-10-75 and was found to be progressing well without any complaint.

Pathology:

Macroscopically the cyst was about 20 cm. x 15 cm. in diameter, pyriform in shape with smooth surface containing clear fluid and large number of daughter cysts inside the main cyst. The daughter cysts with opaque egg white wall were of different sizes—varying from size of ping-pong ball to cricket ball which came out freely on puncturing the mother cyst. The wall of the mother cyst was thick and the inner wall was translucent and studded with cystic masses (Fig. 2).

Microscopically, the centrifuged deposits of the fluid content showed a large number of blood capsules and free hooklets.

Histopathological picture of the cyst showed the hydatid cyst containing ectocyst, endocyst, brood capsules and scolices.

Discussion

Preoperatively, hydatid cyst affecting the genital organ was not thought of in spite of the high incidence of hydatid

cyst among the female in this country. This was because the involvement of this region of the body is extremely rare. The importance of excluding hydatid cyst and taking proper precaution before performing surgery on such cases cannot be over-emphasised, particularly in endemic areas. The accidental puncture of the cyst during operation may lead to hazardous results.

The condition is mostly diagnosed on laparotomy. When in connection with the uterus it is commonly diagnosed as fibromyoma and when in connection with the broad ligament it is diagnosed as ovarian cyst.

Diagnosis

In the present case Casoni's test could not be done as the diagnosis was made only after laparotomy.

Treatment

Excision of the cyst is the treatment of choice. If the cysts rupture during operation, anaphylactic shock and peritonitis may develop in the immediate postoperative period. As a matter of fact the present case developed severe anaphylactic shock on the 2nd postoperative day as there was leakage of fluid from the hydatid cyst during operation.

Summary

An interesting case of hydatid cyst of broad ligament developing severe anaphylactic shock on the 2nd postopera-

tive day is reported. A brief discussion is made on the incidence, pathogenesis, diagnosis, prevention and management.

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See Figs. on Art Paper VII