

HYDATID DISEASE IN GYNAECOLOGICAL PRACTICE

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SUMMARY

Two cases of hydatid disease affecting genital organs are reported. Only 19 cases have been so far reported in Indian literature.

Introduction

Female reproductive system is a rare site for hydatid disease and the incidence has been reported as 2% (Chatterjee, 1952), 0.25% (Craig and Faust, 1951) and 3% (Parikh and Parikh, 1966).

Two species of *Echinococcus* are known to infect man, *E. Granulosus* and *E. Multilocularis*. The disease is endemic in sheep and cattle raising countries namely South Australia, Tasmania, New Zealand, Tanzania and Northern and Southern parts of Africa. Infection by *E. Multilocularis* is rather uncommon even in endemic areas. Infection by *E. Granulosus* produces large unilocular cysts surrounded by a false capsule formed by host tissue fibrosis. The cyst contains fluid, free brood capsules, scolices and large number of daughter cysts. Infection by *E. Multilocularis* is characterised by multiple minute irregular cavities containing very little fluid.

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Pelvic hydatids are almost always secondary to primary lesion in liver, spleen or kidney resulting from leakage or rupture of cyst in these organs. Rarely, primary hydatid cyst in the pelvis may form by blood stream spread when the embryo penetrates through the wall of the first portion of duodenum into the capillaries and then into vena cava bypassing the liver. Primary infection through the rectum or vaginal wall is only a theoretical possibility.

Symptoms produced depend upon the site of the cyst. Cysts in the pouch of Douglas and uterovascular pouch produce pressure symptoms related to the rectum and bladder. Pelvic cysts can lead to mechanical obstruction to delivery. Uterine cysts can manifest by menstrual irregularities and disturbances of micturition. Adnexal cyst can present with symptoms and signs of an adnexal mass.

Diagnosis is almost always made at laparotomy as it is generally not thought of and does not produce any specific clinical picture.

Two cases of hydatid disease affecting genital organs were seen in short period

of time in the Sassoon General Hospitals, Pune which because of their rarity are presented here.

CASE REPORT

Case 1

A 70 year woman, corporation sweeper by occupation was admitted on 8-9-82 for passage of white clots per vaginum for a week along with offensive vaginal discharge. Gynaecological examination revealed an inflamed patulous cervix discharging offensive discharge along with white coloured grape-like cystic masses coming freely through the cervical os. Cervix was 1 cm dilated, uterus was soft and bulky of about 12 weeks pregnancy size and its cavity was filled with many such cystic masses. Provisional diagnosis of malignancy of uterus was made and patient was submitted to uterine curettage. Many such cystic masses could be evacuated from the uterine cavity. No endometrium or any other neoplastic tissue could be obtained on curettage. The histopathological report of these masses suggested the diagnosis of hydatid cysts due to infection by E. Multilocularis. The case was further investigated to rule out hydatid cysts at other sites.

Ultrasonography did not reveal any evidence of cysts in liver or kidney. However, plane X-ray of abdomen revealed a rounded calcified shadow in the lower abdomen. Casoni's test was negative.

Uterine infection was treated with antibiotics and the patient was given tablets Mebendazole empirically. Six weeks later the uterus had come back to normal size, the cervix was closed and the infection cleared up and hysterectomy was planned.

At laparotomy, a calcified cyst of size 1½" x 1½" was found adherent to the anterior abdominal wall in the midline about 2" above the pubic symphysis, which was excised. Uterus was of normal size but its surface and pelvic pouches showed evidence of inflammation. Right appendage had formed a mass which was densely adherent into the pouch of Douglas. As the uterus was densely adherent posteriorly to rectum, hysterectomy was not done and the abdomen was closed. Post-operative period was uneventful. Follow-up examination 6 weeks later did not reveal any pelvic pathology.

Case 2

A 20 year old woman was admitted for dysuria and retention of urine off and on for 1 year. She required catheterization twice before admission. Her menstrual cycles were normal. She married 1½ years back and had not conceived as yet. Abdominal examination revealed a midline swelling arising from the pelvis and corresponding to 20 weeks pregnant uterus. It was soft and cystic but its mobility was restricted.

Cervix was displaced to left and upwards. Vaginal examination revealed a mass filling the upper part of pelvis and a normal sized uterus was felt separately on left side. Intravenous pyelography showed displacement of right ureter laterally and hydroureter. With the pre-operative diagnosis of ovarian cyst, possibly in the broad ligament, laparotomy was planned. At laparotomy a large rounded cyst 6" x 6" size was seen arising from the pelvis which was adherent to the omentum and surrounding abdominal wall. After separating the adhesions between the cyst and the parietal peritoneum it was found that the uterus, both fallopian tubes and ovaries were normal and the cyst was occupying the pouch of Douglas. While attempting enucleation of the cyst, it ruptured inadvertently discharging cheesy white thick material along with two chitinous sacs. It was thought to be a dermoid cyst arising from the pelvis and the cyst wall was further separated and removed from the pouch of Douglas. Histopathological examination of the cyst wall revealed the diagnosis of hydatid cyst. Post-operative period was uneventful. Follow-up examination six weeks later revealed normal uterus without palpable pelvic mass. The patient was advised to take mebendazole tablets orally for six months.

Discussion

Hydatid disease is rarely met with in gynaecological practice 13 cases in Indian Literature are shown in the Table along with the important features of most of them.

Review of Indian Literature on Hydatid Cysts Affecting Genital Organs

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Author	No. of cases	Site affected	Clinical presentation	Preoperative diagnosis	Treatment
P. K. Devi (1955)	2	1. Pouch of Douglas	1. Obstructed labour H/o two laparotomies within previous 3 years hydatid cysts removed H/o rupture of cyst	Pelvic hydatid	L.S.C.S. Excision of cyst after injecting 10% formalin into the cyst fluid
		2. Multiple cysts in pelvis	2. Painful lump in lower abdomen and menorrhagia	Ovarian cyst/ Endometriosis	Removal
A. Sarojini (1962)	1	Uterovascular pouch	Abdominal lump 24 weeks size	Multiple	At laparotomy, while separating dense adhesions cyst ruptured. Also bladder got injured at two places hence subtotal hysterectomy done with partial excision of cyst
Premchandra S. & G. Singh (1964)	1	Broad ligament		Malignant ovarian tumour	Excision
A. V. Narayanrao (1964)	3	1. Douglas pouch	20 weeks mass	Ovarian cyst	Excision
		2. Right broad ligament	20 weeks mass + pain	Ovarian cyst	Excision
		3. Broad ligament and pouch of Douglas	24 weeks mass	Fibroid uterus	Subtotal hysterectomy and Excision
		4. Multiple-liver, abdomen and broad ligament	Abdominal mass and vomiting	Ovarian cyst	Partial excision patient died due to severe anaphylactic shock
Parikh & Parikh (1966)	2	1. Uterine myometrium	Obstructed labour	Fibroid uterus Pelvic cyst	Excision Excision
		2. Parietal and Visceral peritoneum on uterus	Obstructed labour		

Author	No. of cases	Site affected	Clinical presentation	Preoperative diagnosis	Treatment
Surinder Sandhu (1982)	1	Uterine cavity	Primary sterility treated for chronic PID. Uterus firm and irregular 12 weeks size	Fibroid uterus	Hysterectomy
Cited by Rao A. V. N. Guntur Medical College	2/27	Cases of hydatid cysts were in pelvis			

All cases reported so far were diagnosed at laparotomy often as a surprise except 1 case, where history of previous laparotomies done for hydatid cysts suggested the diagnosis. The sites involved were broad ligament, Pouch of Douglas, uterovascular pouch and uterus.

Clinical presentation was obstructed labour due to pelvic mass in 3 cases and a large abdominal mass in the rest. Preoperative diagnosis in most of these cases was either an ovarian cyst or a fibroid in the uterus.

All reported cases seem to belong to large unilocular variety with daughter cysts suggestive of infection by *E. Granulosus*.

The second case presented here is similar to all reported cases where a large unilocular cyst pre-operatively diagnosed as ovarian cyst was detected in the pouch of Douglas which was diagnosed correctly after histopathological examination of the removed cyst.

The first case of hydatid cysts in the uterine cavity presented here seems to be a unique one for its

- (1) Pre-operative diagnosis (HPE of cysts expelled out from vagina)
- (2) Rare variety of infection itself (*E. Multilocularis* involving uterine cavity) and
- (3) Natural evacuation of the cysts following a spontaneous dilatation of 'cervix somewhat mimicking a process of abortion which has not been reported so far. However, the development of the infection in the uterine cavity in the absence of any other active cyst cannot be explained.

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