Pregnancy Following Surgery Of Multiple Pelvic Hydatid Cysts

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Abstracts: Background: Hydatid cyst in pelvic region is very rare. A patient was admitted in Gynaec ward with complaints of , lump and pain in lower abdomen and, constipation since, five months. General examination was normal. Abdominal and gynaecological examination lead to diagnoses as ovarian cyst ? Multiple uterine subserous fibroids? Ultra sonography diagnosis was Hydatid cysts abdomen / Mucininious cystadenoma ovaries . CT Scan abdomen and pelvis confirmed USG findings of Hydatid cysts. On Laprotomy multiple hydatid removed from pelvic region , omentum , ileocaecal junction and liver . Patient put on chemotherapy and follow up was satisfactory [Saluja J NJIRM 2015; 6(4):111-114]

Key Words: Pelvic hydatid cysts , multiple hydatid cysts.

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Introduction: Echinococcosis or Hydatid cystic disease is an infection of sheep, cattles, pigs, horses, rodents caused by larval stage of canine tapeworm. In humans it is caused by larval stage of Echinococcus granulosus or Echinococcus Multilocularis , Hydatid cysts due to former are found more commonly in sheep rearing areas as Australia , NewZealand , Argentina , Chili, Mediterranean region. The latter has a more restricted geographical distribution being found in Arctic and sub-arctic regions namely USA , Canada , Europe , Asia. In India highest in Andhra Pradesh and Tamil Nadu. Owing to increasing worldwide travel the disease is no longer restricted to endemic areas, and hydatid disease need to be considered in the differential diagnosis of any cystic intra-abdominal mass, especially when the mass is increasing in size .Although the female reproductive system is rare site for hydatid disease various obstetric and gynaecological presentations has been reported.[1-4]. Echinococcus granulosus can reach any organ or tissue of the body where it develops into small hydatid cyst. Predominantly the cysts are localized in the lungs and liver [5,6]. Primary involvement in pelvic region is very rare [7] and difficult to diagnose & Incidence 1-3%. Multi organ involvement occurs in less than 2% of all cases.[8]

Case Report: Pt, aged 22 yrs, Hindu was admitted in Gynaec ward with complaints of Lump and pain in lower abdomen , Constipation Off & On for five months . Her obstetric history was para two , living two, last delivery six years back . Her menstrual history regula,r but scanty since five months .On general and systemic examination nothing abnormal detected , Abdomminal examination revealed uterus fourteen weeks size firm , a seperate mobile and tender ,cystic, mass about 8 by 5 centimeter palpable in right iliac fossa On internal examination uterus 14 weeks size , irregular, uterus moved with movement of cervix , a cystic ,tender masses felt in right and anterior fornices . Clinical Diagnosis Ovarian Cyst ? Multiple Uterine sub serous Fibroids ? Investigations– Hb– 10.9 gm% , Blood group – AB positive , Platelet count – 2,68,000/cu mm , TLC – 6,800/cu mm , DLC – N68%, L-25%, E-02%, M-03%, B-0%, ESR – 25mm/hr , Urine – NAD , FBS – 92mg/dl , RFT &LFT – WNL , HBsAg / HIV / VDRL – Non Reactive.. USG Pelvis -uterus 8x5x4 cm and empty , Myometrium homogenous , Endometrial thickness normal.Multiple multicystic masses in pelvis & right lumbar region measuring 5x5cm , 6x5cm, 3x3cm, 5x5cm in size and plenty of pin head size white nodules. Cystic shadows in adnexae 8x10cms size and upper abdomen four cystic masses in liver measuring about 5x6cms and other abdominal organs normal, no free fluid in peritoneal cavity.

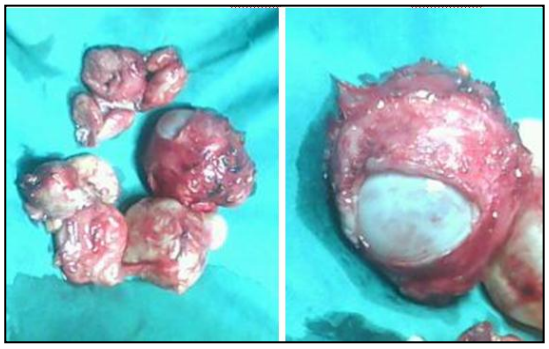
Diagnosis – Hydatid cysts abdomen,Hydatid cysts / mucinous cystadenoma ovaries CT Scan - abdomen & pelvis confirmed USG finding of hydatid cyst.

Serology - Positive for Echinococcus IgG.

Laparotomy under GA - Multiple hydatid cysts found in lower abdomen - uterovesical pouch, post wall of uterus, Bi-lateral adnexae, omentum, and ileo ceacal junction.All palpable cysts about 18-20

were removed , Some ruptured during excision , Ovaries and uterus preserved , 3-4 cysts removed from liver , Peritoneal lavage done with Betadine and Normal saline solution.

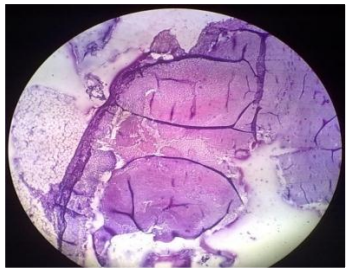
Figure 1: Gross Appearance of intact hydatid cysts removed on laprotomy



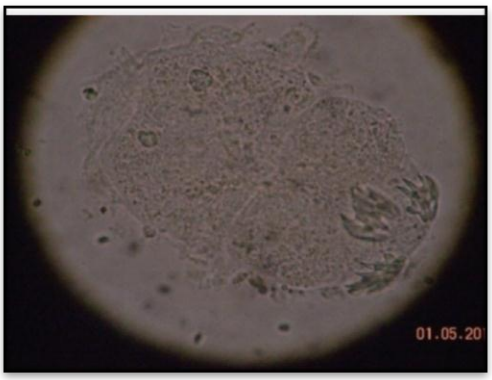
Post operative TT-1 unit of blood transfusion , I.V. fluids , Inj. Tazobactum - 4.2 gm IV 8 hrly , Inj Gentamycin - 80 mg 12 hrly , IV Metrogyl- 500mg – 8 hrly , Stitched removed – on 9th Post-op day & Discharged , Tablet Albendazole 400mg prescribed for 4 weeks.

Histopathological Report - Specimen:-Multiple cysts , Gross:- Received six cystic masses , largest one measuring 7x6x3 cms , second largest measuring 5x5x4cms and four small masses altogether measuring 7x6x3cms.The largest mass has an outer covering dark brown in colour and inside it is present an intact cyst with fluid measuring 4x3x2cms having whitish membrane on external appearance. Second largest mass has yellowish white external appearance with areas of brownish tissue interspersed in it . Four small masses are greyish black to brown on external appearance and are partly cystic and partly composed of soft tissue. Microscopy:-Multiple sections studied from the cysts, showed histological features of hydatid cyst and scolices of Echinococcus granulosus.

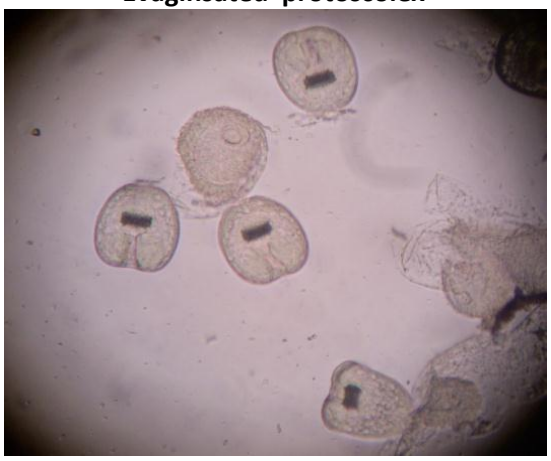
Histological Picture



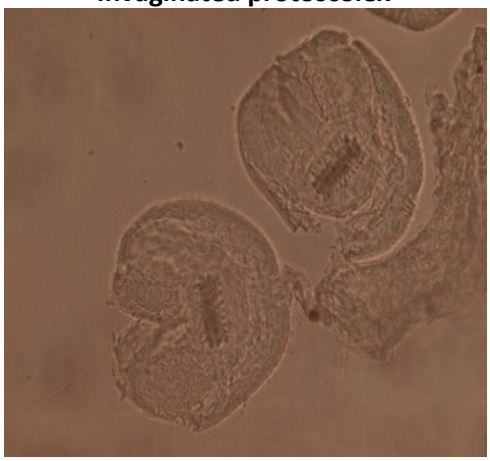
Wet mount- H.cyst fluid:protoscolices



Evaginsated protoscolex



Invaginated protoscolex



Follow Up - Patient came for checkup after 6 wks, USG whole abdomen and pelvis normal , Uterus and Ovaries normal , Endometrial thickness 6mm , After six months patient came with 6 wks of pregnancy .After that she did not return for follow up.

Discussion: The word hydatis (Greek) means a drop of water , It may present as unilocularor, multilocular,primary(rare) secondary (common) . The radiologic signs are often non specific. Pelvic echinococcosis in women remains difficult to diagnose with sonography because of the wide variety of ultra sonographic appearances that echinococcal cyst have[9] . Adult-The adult tapeworm's measures about 5 mm long and consists of a scolex (head) and the proglottids[10] which contains the eggs .These proglotids are transmitted to humans from ingestion of food contaminated with human faeces. Life cycle - Two hosts . Definitive host : Dog, Wolf, Fox, Jackal, life cycle of adult worm in canine host is short lived about 6 months . Intermediate host : Sheep, Goat, Pig, Cattle, Horse & man (Accidental host). Life cycle of the larva may continue for years . The Source of Infection In man by handling infected dogs ,eggs enters in duodenum and by portal vein enter the liver ,which acts 1st filter and then lungs , 2nd filter and finally enters the systemic circulation and lodges in various organs . The most common site involved is the Liver (59-75%) followed in frequency by Lungs (27%) , Kidney (3%) ,Bones (1-4%),Brain(1 -2%) .Other sites such as heart ,spleen ,pancreas ,omentum , ovaries ,parametrium ,pelvis, thyroid, orbit, or retroperitoneum and muscels are very rarely affected.[11] Primary peritoneal hydatidosis is rare and has been reported to occur only in 2% of all abdominal hydatid cases.[12] Pelvic hydatid disease orginates in connecting tissues immediately beneath the peritoneum of pouch of douglas and spread to uterus, ovaries, tubes ,bladder and rectum. When infection occur in men, cycle comes to dead end because cysts of viscera of human are unlikely to be eaten by dogs.Clinical Features –Hydatid cysts may remain asymptomatic for many years and may be found incidently on imaging, or symptoms appear after exposure of 5-20yrs.It depends on the site where it is present . The cyst grows very slowly and is generally asymptomatic until it reaches large dimensions.There can be observed ananaphylactic reaction as a result of cyst rupture or the growing cyst may cause an obstruction as it compresses neighbouring tissue and organs Sometimes cysts can rupture spontaneously. Investigations-The characteristic imaging findings have been described as calcification of the cyst wall the presence of daughter cysts ,membrane detachment.[13].Radiologic signs are often nonspecific.Ultrasonagraphy is less accurate in localizing and delineating the extent of the cyst. However tomography can identify hydatid cyst with 90% sensitivity[14].It may show features of multilocular appearance due to hydatid sand. Definitive diagnosis is obtained by means of serological tests ELISA Indirect hem agglutination (IHA) crossover immunoelectro phoresis(CIEP)and Western blot .The last two of these are confirmatory tests and are useful for follow-up of treated patients.[15] Serological tests may be helpful but even their reliability is not 100%.[16] Blood - may show Eosinophilia . Treatment-Exploratory cysts are punctured under USG, CT scan for accurate diagnosis. Nowadays - Puncture , Aspiration , Injection (cavity sterilized with 2.7% of sodium chloride or .5% silver nitrate) and Reaspiration. (PAIR) is gaining popularity. Fine needle aspiration cytology (FNAC) help in establishing the diagnosis of unilocular cystic pelvic mass . In the past , FNAC of hydatid cyst was thought to cause severe anaphylactic reactions. But in the study of “Von Sinner et al” the incidence of anaphylactic reactions reported was very low.[17] Drug treatment with albendazole has been found to be successful in a proportion of cases, but drug therapy is generally not used as the primary treatment except in cases where patient is not fit for surgery or cyst size is smaller or deeply located .Surgery is the most effective treatment . Combination of preoperative and post operative albendazole is a very useful regime. It is recommended to continue with the preoperative , 5 day and post operative Albendazole treatment. Albendazole suppresses development of hydatid cysts following intraperitoneal inoculation of protoscoliosis.[18] .Preoperative Albendazole reduces post operative recurrence . The recurrence ratio after surgical treatment reported is 2%.[19] Both medical and surgical treatment are available but there is no consensus and each has to be individualized. Preven*tion* is by handling dogs carefully, Destruction of stray dogs , De-worming of pet dogs, Laboratory workers should be careful while examining dog’s faeces , Personal prophylaxis-(Cleaning hands before eating) .

Conclusion: Involvement of female genital tract in hydatid disease is extremely rare. The most important factor is the awareness of the possibility

of hydatid disease in endemic areas. It should be considered in differential diagnosis in any cystic pelvic mass . This patient gave history of dogs in their premises of their house in childhood .

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