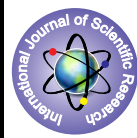


A Rare Case of Peritoneal Inclusion CYST



Medical Science

KEYWORDS :

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ABSTRACT

We report the case of 35 year old female patient with history of abdominal pain and past history of previous various abdominal surgeries diagnosed with peritoneal inclusion cyst on CTscan. She was operated with Exploratory Laprotomy and removal of cyst with left oophrectomy.

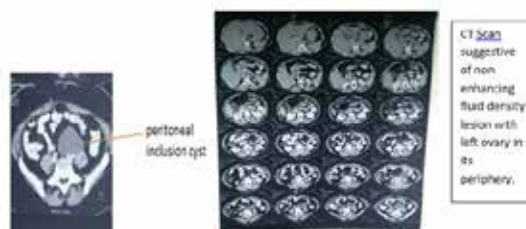
INTRODUCTION

Peritoneal inclusion cysts are complex cystic adnexal masses consisting of a normal ovary entrapped in multiple fluid-filled adhesions. The cysts usually develop in women of reproductive age who have a history of previous pelvic surgery or pelvic infection. Treatment of peritoneal inclusion cysts remains controversial, and both medical and surgical treatments are used. Because peritoneal inclusion cysts do not have malignant potential, a conservative approach is usually recommended. However, because of continued pain and distension, many patients choose definitive treatment.

CASE PRESENTATION

A 35 year old female hindu patient was admitted to our hospital with the history of lower abdominal pain since 2 months which was dull in nature, moderate to severe in intensity, continuous in nature and without any relation to food intake. History of occasional constipation and burning micturition was present. Patient had past history of irregular menstruation and has history of previous abdominal surgeries of lower segment caesarean section (LSCS) before 11 years, open hysterectomy for fibroid before 8 years, and right oophrectomy before 5 years for right haemorrhagic ovarian cyst. Patient has history of diabetes mellitus since 8 years and is under treatment for the same. On examination vitals of the patient were within normal limits and local examination revealed vertical midline lower midline scar of previous surgery. There was no palpable swelling, mass or lump on the abdomen. Abdomen was soft and non tender. Patient was investigated with CBC revealing normal haemoglobin, Normal WBC count and normal platelet count. Liver and renal function tests were within normal limits. Blood sugar levels were within normal limits. Chest and abdominal x-rays revealed no abnormality. Ultrasonography revealed 94*63 mm sized well defined loculated cystic lesion in the pelvis. There was no solid component, septation or calcification with the cystic lesion with left ovary seen in the periphery of the lesion. Patient underwent CT Scan with triple contrast which revealed well defined non enhancing fluid density lesion in pelvis on left side extending to umbilical region at L4 vertebral level and measuring 11.5*6.5*6 cm with left ovary seen within the lesion in its periphery. CEA and CA-125 were within normal limits. Patient underwent surgery. Exploratory Laprotomy was done with all pre-operative work up and cyst was identified adherent to sigmoid meso-

colon and adhesiolysis done. Cystic fluid aspirated and sent for cytology which revealed it to be exudative fluid without any malignant cells. Cyst wall was removed along with the left ovary and fimbriae and sent for Histopathological examination which revealed cystic wall consisting of mesothelial cells without any malignant or atypical cells. Patient was discharged on the 7th post operative day without any complication.



On Exploratory Laprotomy Cyst found adherent to the sigmoid mesocolon.



Fig showing cyst wall opened and fluid drained.



DISCUSSION

Peritoneal inclusion cysts are complex cystic adnexal masses consisting of a normal ovary entrapped in multiple fluid-filled adhesions. The cysts usually develop in women of reproductive age who have a history of previous pelvic surgery or pelvic infection. This unusual but benign mass, which has a distinct sonographic appearance, has also been referred to as benign encysted fluid, *inflammatory cyst of the peritoneum*, *peritoneal pseudocyst*, *entrapped ovarian cyst*, *multilocular peritoneal cyst*, and *postoperative peritoneal cyst*.

The development of a peritoneal inclusion cyst depends on the presence of an active ovary and peritoneal adhesions. The normal peritoneum absorbs fluid easily. However, when the peritoneum becomes infected or mechanically injured, its transport properties are changed and fluid absorption is slower, causing a decrease in the clearance of ovarian fluid. The time interval between the most recent surgery, infection, or inflammatory process and the detection of peritoneal inclusion cysts has ranged from 6 months to 20 years. The most important sonographic finding is a normal ovary surrounded by fluid and multiple septations. The ovary may be located centrally or laterally and is surrounded by fluid. The fluid is usually anechoic but can be echogenic secondary to hemorrhagic or proteinaceous material. An appropriate description of the sonographic appearance of peritoneal inclusion cysts is that of "a spider in a web." The ovary, or "spider," is located centrally or laterally within the network of weblike septations. On CT, peritoneal inclusion cysts depict a cystic mass with regular or irregular borders, containing material with the attenuation properties of fluid and/or hemorrhage. MR images demonstrate cystic lesions with low T1 signal and high T2 signal consistent with serous fluid.

Peritoneal fluid is predominantly formed by exudation from an active ovary. The ovarian origin of the fluid is strongly supported by the higher concentration of ovarian steroid hormones in peritoneal fluid than in plasma. Additionally, inflammation may cause exudate. These effects may result in the growth and persistence of peritoneal inclusion cysts.

Peritoneal inclusion cysts represent a nonneoplastic reactive mesothelial proliferation. They are also referred to as benign cystic mesotheliomas. The lesions range in size from several millimetres in diameter to bulky masses that may fill the pelvis and abdomen. Individual locules may be filled with clear or yellow serous fluid, gelatinous fluid, or hemorrhagic gray pulplike material. Histopathologically, the locules are lined by one or several layers of flat and cuboidal mesothelial cells, which occasionally form papillae. Typically, blood vessels are visible in the mesothelial tissue. Occasionally, the cuboidal cells undergo squamous metaplasia. Peritoneal inclusion cysts have no malignant potential despite the occasional occurrence of metaplasia.

The current literature is mostly based on case reports

and small series and a uniform treatment approach and long-term follow-up data are missing. There are various treatment options for peritoneal inclusion cyst, ranging from observation to complete resection. Observation with serial imaging is a feasible management option for asymptomatic patients with an incidentally discovered peritoneal inclusion cyst. Image-guided aspiration and use of OC pills can lead to resolution of symptoms with minimal intervention and few complications. However, conservative management of a cystic lesion has not been effective and a tissue sample is required for making the histologic diagnosis and a biopsy is recommended if there is any suspicion of malignancy. It is reported that approximately 50% of cysts recur after aspiration, and aspiration may provide temporary relief of symptoms but not a histologic diagnosis. Sclerotherapy using of an intracystic catheter to instill either ethanol or povidone-iodine is a less invasive method but however, studies with the long-term data, follow-up and complication rate of sclerotherapy are lacking.

The recommended treatment is complete resection and the importance of surgery for making the diagnosis and treatment is supported by most authors. The advantage of surgical management is that a definitive diagnosis is possible by obtaining a histologic specimen. The surgical management options vary from conservative adhesiolysis to radical excision. Definitive treatment is defined as complete resection of the entire macroscopically visible cyst wall. The surgical approach may be via laparoscopy or laparotomy. Recurrence rate after surgical management ranges from 30-50%.

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