International Surgery Journal
Kankariya J et al. Int Surg J. 2022 Apr;9(4):900-902
http://www.ijsurgery.com
pISSN 2349-3305 | eISSN 2349-2902

DOI: https://dx.doi.org/10.18203/2349-2902.isj20220956

Case Report

Multiloculated peritoneal inclusion cyst in male patient: a case report

Jeevan Kankariya, Shubham Bansal*

Department of General Surgery, SMS Medical College, Jaipur, Rajasthan, India

Received: 30 January 2022
Revised: 01 March 2022
Accepted: 24 March 2022

***Correspondence:**
Dr. Shubham Bansal,
E-mail: bshubham461@gmail.com

ABSTRACT

Multilocular peritoneal inclusion cyst (MPIC), also known as benign multicystic peritoneal mesothelioma, is a rare mesothelial lesion arising from the peritoneal mesothelium. This condition most commonly occurs in females of reproductive age group and are very rare in males. We report a case of young male patient, presented with the chief complaint of lower abdominal pain, without any previous history of surgery. After radiological investigations which were suggestive of pelvic inclusion cysts, pt. was planned for diagnostic laparoscopy (D/L). On D/L, multiple free-floating cysts were found in pelvis between rectum and bladder which were successfully extracted and sent for histopathological examination (HPE). HPE confirmed it to be MPIC.

Keywords: MPIC, Peritoneal mesothelium, Benign, Free floating cysts, Male, Recurrent, Pelvis

INTRODUCTION

Multiloculated peritoneal inclusion cysts (MPIC) or benign cystic mesotheliomas are non-neoplastic reactive mesothelial proliferation of peritoneal cells.[1] Some consider them as neoplastic, rather than reactive.[4] These were first described by Mennemeyer et al via Electron microscopy as cells of mesothelial origin.[6] They are uncommon lesions, of which only around 20% of cases are reported in adult men.[2] These cysts are commonly reported in women of reproductive years (rare in men) with pelvic and low abdominal pain being the most common presenting complaints.[3,8]

Although benign, these lesions tend to recur, often requiring repeated surgeries.[3-5] The lesions usually arise from peritoneal mesothelium covering the serous cavity and are often found on imaging or incidentally at surgery. It is advised to confirm the diagnosis by radiology, histology and immunohistochemistry. Herein, we report a case of MPIC that involved the pelvic cavity that was successfully treated with surgery.

CASE REPORT

A 16 years old male patient came to the hospital with chief complaints of lower abdominal pain, burning micturition and pain during defecation since 6 months, abdominal fullness and distension and intermittent vomiting after feeds since 1½ months, with no previous history of any surgery or chronic disease, with normal bowel and bladder habits and without any addiction. On examination patient's vital signs and general physical; examination was normal, on per abdominal examination, only mild tenderness was elicited in hypogastrium and no mass/lump was palpable. Other systemic examination was also within normal limit. All routine blood investigations were also within normal range.

His usg w/a and pelvis was s/o-ill-defined multiloculated cystic lesion of size 5.0×5.6×7.5 cm noted in pelvic cavity between urinary bladder and rectum and along right lateral wall of urinary bladder possibility of-hydatid cyst / lymphangioma / other. On further CEMRI report s/o-few well defined cystic lesions seen between urinary bladder and rectum. These appear hyperintense on T2 and

STIR and hypointense on T1W1 without significant enhancement. Collectively it measures 4.6×3.5 cm in size. Fat plane with adjacent structure is maintained. Findings suggests benign etiology. TPCT w/a revealed multiple thin-walled cystic density lesions measures 4.2×2.5 cm in right para vesical region, 4.8×2.4 cm in left para vesical region in superficial plane and 4.6×3.0 cm in retro vesical plane. few non enhancing incomplete septations seen within the lesion. Post contrast study shows no significant enhancement, there is also no internal calcification. Findings are in concern for loculated collection vis peritoneal inclusion cysts.

Based on clinical presentation and radiological investigations, pt. was planned for diagnostic laparoscopy (D/L). On D/L, it was found that multiple free floating clear fluid filled cysts of size 2-4 cm were present in pelvic cavity between urinary bladder and rectum, not adhered to any solid or hollow viscera, no infiltration to any structure was present, liver, spleen and all other solid and hollow viscera were absolutely normal. These cysts were successfully extracted laparoscopically and sent for histopathology (HPE) for confirmation. On HPE, it confirmed the cysts to be MPIC. HPE-sections reveal multiloculated cystic lesions, individual cysts are lined by bland, flattened mesothelial cells. Mitoses are not identified. The cysts are separated by fibrous septa with patchy chronic inflammation. There is no infiltration of underlying tissues.

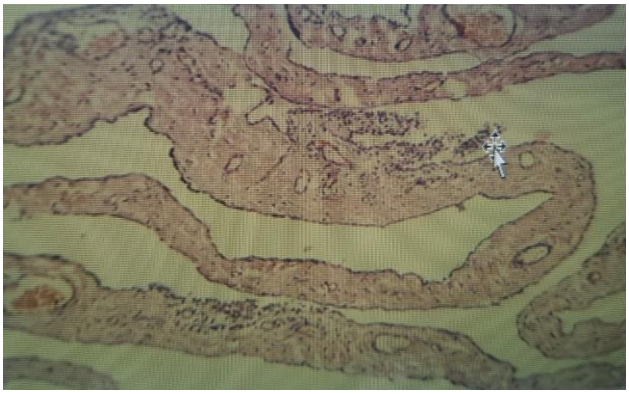

Figure 1: Histopathology (microscopic view of cyst).

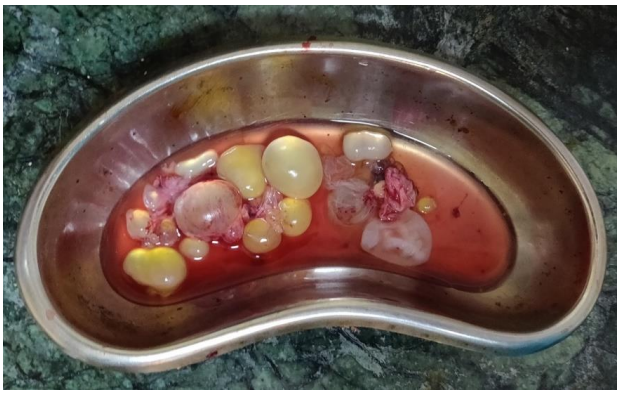

Figure 2: Macroscopic view of cysts.

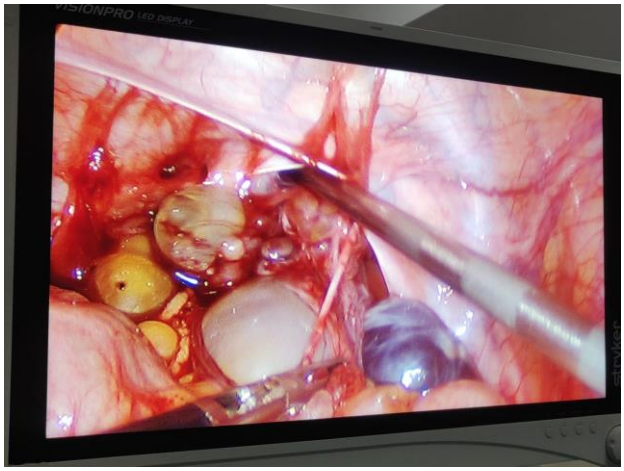

Figure 3: Laparoscopic view.

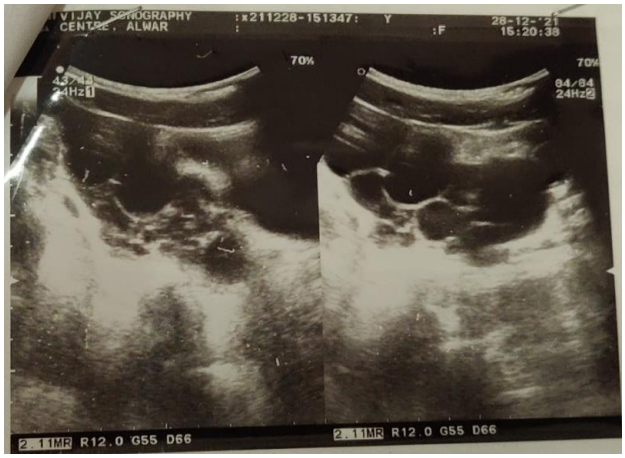

Figure 4: USG w/a with pelvis (pelvic view).

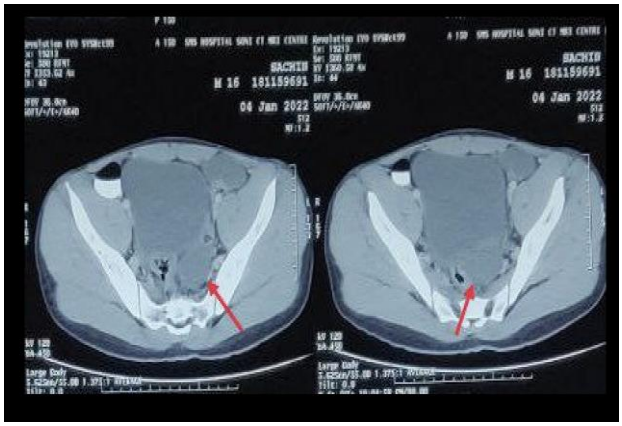

Figure 5: CECT w/a with pelvis (pelvic film).

DISCUSSION

A MPIC is defined as cystic mesothelial proliferations of peritoneal membrane that may extensively involve the pelvis, upper abdomen and retroperitoneum.[7] It grows along the serosa as multiple, translucent, fluid-filled cysts. Occasionally, it manifests as a solitary or free-floating mass. The tumor is made up of mesothelial-lined

cysts embedded in a delicate fibrovascular stroma.[4] The most important differential diagnosis cystic lymphangioma, mucinous cystadenoma, cystic teratoma and pseudomyxoma retroperitonea.[5,6]

In contrast, where most cases of MPIC had previous surgery and are usually females, this case is a male who didn't had any surgery in his lifetime. The reported symptom in the present case was mild pelvic pain and distension of abdomen. This was also similar to previous reports where the patients usually presented with chronic abdominal or pelvic pain.[3]

The operative finding is a cluster of cysts throughout pelvic cavity, free-floating. Accurate diagnosis is made by histopathological confirmation. It's agreed that surgery is the only effective treatment, but there are no other effective treatment strategies for MPIC.[3,5]

Some studies suggest that MPIC is estrogen dependent and it's extreme sensitivity to manipulation in hormonal milieu, and antiestrogens like Tamoxifen may have a role in the medical management of these rare estrogen-dependent, recurrent neoplasms.[9] Sensitivity to hormone is also evident by the fact that this condition characteristically occurs in females of reproductive age and rarely occurs after bilateral oophorectomy or after menopause.[10]

CONCLUSION

Thus, to conclude, MPIC is a very rare benign cystic tumour. This lesion has a nonspecific appearance on imaging and thus, will always requires careful histological evaluation. Despite a high recurrence rate, the prognosis is good after complete surgical resection. A systematic follow-up of these patients is essential to detect recurrence and further management.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Ross MJ, Welch WR, Scully RE. Multilocular peritoneal inclusion cysts (so-called cystic mesotheliomas). Cancer. 1989;64(6):1336-46.
2. Mishra T, Karegar MM, Rojekar AV, Joshi AS. Multilocular peritoneal inclusion cyst, rare occurrence in men: A case report. Indian J Pathol Microbiol. 2018;61(1):164-6.
3. Safioleas MC, Constantinos K, Michael S, Konstantinos G, Constantinos S, Alkiviadis K. Benign multicystic peritoneal mesothelioma: a case report and review of the literature. World J Gastroenterol. 2006;12(35):5739-42.
4. Weiss SW, Tavassoli FA. Multicystic mesothelioma. An analysis of pathologic findings and biologic behavior in 37 cases. Am J Surg Pathol. 1988;12(10):737-46.
5. Elbouhaddouti H, Bouassria A, Mouaqit O. Benign cystic mesothelioma of the peritoneum: a case report and literature review. World J Emerg Surg. 2013;8:43.
6. Mennemeyer R, Smith M. Multicystic, peritoneal mesothelioma: a report with electron microscopy of a case mimicking intra-abdominal cystic hygroma (lymphangioma). Cancer. 1979;44(2):692-8.
7. McFadden DE, Clement PB. Peritoneal inclusion cysts with mural mesothelial proliferation. A clinicopathological analysis of six cases. Am J Surg Pathol. 1986;10(12):844-54.
8. Omeroglu A, Husain A. Multilocular peritoneal inclusion cyst (benign cystic mesothelioma). Arch Pathol Lab Med. 2001;125(8):1123-4.
9. Letterie GS, Yon JL. The antiestrogen tamoxifen in the treatment of recurrent benign cystic mesothelioma. Gynecol Oncol. 1998;70(1):131-3.
10. Letterie GS, Yon JL. Use of a long-acting GnRH agonist for benign cystic mesothelioma. Obstet Gynecol. 1995;85(5 Pt 2):901-3.

Cite this article as: Kankariya J, Bansal S. Multiloculated peritoneal inclusion cyst in male patient: a case report. Int Surg J 2022;9:900-2.