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Case Report

A rare case of mucinous cystedenoma in adoloscence

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ABSTRACT

Mucinous cystadenomas are one of the rarely found benign ovarian neoplasms seen in adolescents. They are commonly known for their massive size causing compressive effects ranging from pressure, pain, bloating, and urinary symptoms. As time passes by, these adnexal masses can lead to severe and fatal complications, such as ovarian torsion or haemorrhage. Accidental findings of these tumours are common as many of these patients are usually asymptomatic. Pelvic examinations and imaging studies can be used to further diagnose symptomatic patients and aid physicians in developing an appropriate course of treatment. A case of 18-year-old unmarried nulligravida presented with abdominal distension and mass per abdomen for the past 4 months, clinical examination revealed a mass of 32-34 weeks size, cystic in consistency, lower mass was not palpable, ultrasonography and magnetic resonance imaging (MRI) of abdomen and pelvis showed a large abdominopelvic multiloculated thin-walled lesion of size 17×21×30 with thin walled septations with enhancing intensity likely arising from the right adnexa. Mucinous cystadenoma patient was operated, staging laparotomy was done showed a huge large right ovarian cyst 26×15×9 cm, with no abnormalities noted in the uterus, appendix and left ovary. The histopathology report showed as mucinous cystadenoma. The patient was surgically managed by exploratory laparotomy with right ovarian salpingoophorectomy was done, patient was discharged in stable condition and advised follow-up in gynaecology OPD. Incidence of mucinous cystadenoma is very rare in adolescents. Here we report a case of mucinous cystadenoma, detailing the clinical presentation, diagnosis, pathologic review, imaging findings and management.

Keywords: Mucinous cystadenoma, Adolescent, Case report

INTRODUCTION

Ovarian cystadenomas are neoplastic tumors that arise from surface epithelium of the ovaries. Mucinous cystadenoma is a benign epithelial tumour of the ovary corresponding to class B1 of the FIGO histological classification. It represents 15% of all ovarian tumors, coming second after serous cysts. Ovarian cystadenomas are predominantly seen in adult women, that is 3rd-6th decade of life and their occurrence in the adolescent population is extremely rare. The most frequently presenting clinical features are compressive symptoms or a visible abdominal mass.[1] Although the rarity of large ovarian cystadenomas in adolescents can present with challenges in diagnosis and management, necessitating a comprehensive approach to care. Tumours often manifest with acute to severe symptoms. Prompt diagnosis and appropriate management are crucial to prevent complications such as ovarian torsion, rupture, or peritonitis.

CASE REPORT

An 18-year-old unmarried nulligravida presented with abdominal distension and mass per abdomen for the past 4 months. Clinical examination revealed a mass of 32-34 weeks in size, cystic in consistency, lower mass was not palpable. Her vitals were blood pressure (BP) 120/80

mmHg, respiratory rate of 20 cpm, and pulse 77 bpm. Clinically patient appeared stable. On per abdomen examination uterus corresponds to 32-34 weeks in size, firm in consistency lower border was not felt. No comorbidities, no history of any previous surgery.

Figure 1: MRI-contrast axial image showing enhancement of septations.

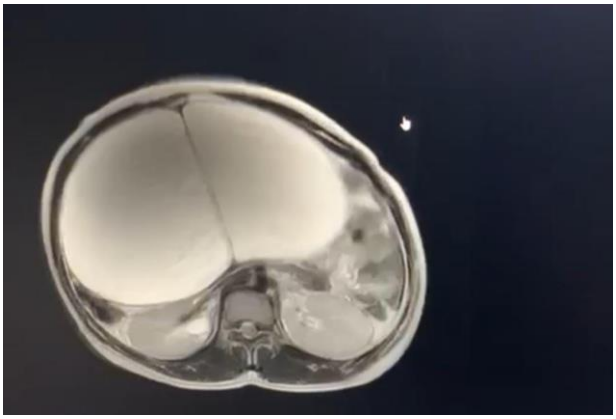

Figure 2: MRI IMAGE-T2 axial image showing cystic lesion with septation and right hydroureteronephrosis.

Figure 3: MRI-coronal t2 image showing multiloculated abdominopelvic lesions.

Figure 4: Gross specimen of mucinous cystadenoma.

Menstrual history

Patient attained menarche at age of 14. For past 4 months recurrent cycles once in 15-20 days. Changes 2-3 pads/ day, not associated with passage of clots or dysmenorrhea. Previously regular cycles of once in 28-30 days. Moderate flow of 4-5 days. Changes 2-3pads/day not associated with passage of clots or dysmenorrhea.

Diagnosis

The routine investigation was done and reported normal. Transabdominal ultrasonography revealed a large, multiloculated, hypoechoic, cystic lesion noted, extending from adnexa reaching till the epigastrium, displacing the adjacent tissue measuring approximately 15×26×23 cm bilateral ovaries was not visualized, uterus seen displaced posteriorly, endometrial thickness was approximately 3 mm. An MRI scan of pelvis revealed a large abdominopelvic multiloculated thin-walled altered signal intensity lesion 17×21×30 cm with multiple enhancing internal septation from right ovary. Tumour markers CA125-12.8 CA19-9-7.6, alphafetoprotein-2.26, beta hCG-0.20, serum LDH 221.

Outcome

The patient underwent staging laparotomy done with right salpingo oophorectomy showed a 26×15×9 cm cyst, with no abnormalities noted in the uterus, appendix and left ovary. Pelvic peritoneal fluid was sent for cytology and no neoplastic cells were detected

Specimen was sent for histopathology and it was reported as mucinous cystadenoma.

Her postoperative course was uneventful, oral feeds was allowed on 3rd postoperative day. She was discharged on

7th postoperative day without complications and was advised regular follow ups in gynaecology OPD.

DISCUSSION

In young girls, ovarian cysts are common, and usually are benign tumours and functional. Stromal tumours, germ cell tumours and epithelial tumours are different variants of ovarian tumors.[4] Cystadenomas of ovaries are epithelial tumours (benign, borderline, and malignant) benign cystadenoma is the most common type of epithelial ovarian tumour, serous type (75%) and mucinous type (25%) 15% of mucinous cystadenomas are malignant.

Mucinous cystadenomas are more commonly reported in middle aged women. It is rare among adolescents.[5] Cystadenomas have been recognized as precursors of ovarian malignancies and may slowly transform into borderline and invasive ovarian tumors.[4,6] Usual presentation of vague abdominal pain, distension, and visible abdominal mass with discomfort. It is a challenge to identify the site of origin. Ultrasonography (USG) of abdomen and pelvis is the first line of investigation. CECT and magnetic resonance imaging (MRI) can be used to differentiate tumour characteristics.[4,7]

Tumour markers such as CA125, CEA, HE4, alpha feto protein and beta HCG can be useful in differentiating ovarian cancers. Sometimes these tumour markers will be elevated in some benign tumours. CA 125 is a high molecular weight glycoprotein expressed in cell membrane of normal ovarian tissue and ovarian malignancies. CA 125 raised in 85% of patients with epithelial ovarian malignancies. HE4 is highly expressed in ovarian malignancy but not expressed on normal ovarian cells.[8]

Surgery is the gold standard treatment for symptomatic patients, cysts over 10 cm or suspected ovarian mass9 Early detection and follow up can prevent complications such as torsion and cyst rupture.

Recurrence is usually seen if there is intraoperative cyst rupture, incomplete excision of tumour. Hence tumour must be excised carefully and completely.

CONCLUSION

We reported a case of mucinous cystadenoma detailing the clinical presentation, diagnosis, pathologic review, imaging findings and management. Due to the rarity of these tumour, the best treatment strategy will likely be developed through the reporting of clinical experiences, while surgical excision of the tumour remains the constant.

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