Abstract
Dermoid cyst of the ovary is a common benign condition. It is usually asymptomatic but can present with pain, mass, hormone related symptoms or paraneoplastic syndrome. Hair is a common morphological component of the dermoid cyst; however, it rarely manifests as a presenting complain. We report a case, who presented with the complaints of hair coming out through her anal orifice for a year. Ultrasound and computed tomography scan revealed a dermoid cyst of the right ovary adherent to the rectum. Surgical removal showed hair coming out of the cyst. Primary repair of the defect in rectal wall was performed which resulted in resolution of the symptoms.

Keywords: Dermoid Cyst, Teratoma, Ovary, Hair, fistulization, rectum.

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Introduction
Dermoid cyst or mature teratoma of the ovary is a benign neoplasm which is quite prevalent in young females, accounting for 20-50% of ovarian tumours in females. The dermoid cyst is mostly unilateral, more commonly occurring on the right side; however, 8-15% of the cases are bilateral. Mature teratoma is usually an asymptomatic condition which is detected incidentally on routine pelvic examination but some patients can present with the complaints of abdominal pain, lump or symptoms related to hormonal secretion or paraneoplastic syndrome. They can also present with various complications such as torsion, rupture, infection or malignancy. Mature teratoma has well-differentiated germ cell layers; therefore, tissues like skin, hair, fat and muscle are commonly seen on histopathological examination. However, this hair is not seen as a presenting complaint, especially, when coming out of the anal orifice.

Case Report
A 31-years-old married female, para 1 gravida 0, presented in May 2016 at Al Noor Surgery Hospital, Chakwal, Pakistan. Patient complained of hair coming out from her anal orifice for a year which regrew after cutting. She was otherwise fine with no history of pain, allergy, illness, gastrointestinal, urinary or genital symptoms. There was no family history of malignancies or psychological problems. Her menarche commenced at the age of 12 years with regular cycles.

Her physical, general and systemic examinations were unremarkable except for hair coming out through the...
anal orifice (Figure-1). Her vital signs were normal. The abdomen was soft, non-tender and bowel sounds were normal. There was no free fluid or intra-abdominal mass. Pelvic, vaginal and genital examinations were normal. Lab investigations revealed that haemoglobin, total leucocyte count (TLC), platelets count, partial thromboplastin time (PTT), activated partial thromboplastin time and blood sugar levels were in the normal range. Hepatitis B and C profiles were negative and tumour marker profile was normal. Pregnancy test was negative. Ultrasound showed a single right ovarian cyst of roughly 4.3 x 2.9 cm, which was closely adherent to the rectum. On breaking the adhesions, long hairs coming out of the ovaries were visualized. A small defect was observed in the right lateral wall of the rectum. Consent for oophorectomy was taken prior to procedure and oophorectomy of the diseased ovary was performed. Primary repair of the rectum was done. Benign mature teratoma of the ovary with keratin and hair was diagnosed on histopathology. There were no intraoperative and postoperative complications. Symptoms resolved completely after the surgery and the patient was discharged after 4 days. In a one year follow up, the patient was perfectly fine with no complications. Consent of the patient was taken for the writing of the case report.

Discussion

The dermoid cyst is a common ovarian tumour in females accounting for 20-50% of all the cases.1 It can present with various symptoms or complications, thereby posing challenges for the diagnosis. Most patients are asymptomatic, with the disease being recognized incidentally on routine examination of the pelvis. Some of the patients can present with pain or a mass in the abdomen if the cyst becomes large in size. Hormone-related symptoms or paraneoplastic symptoms are rarely seen as a presenting complaint. Patients can also present due to complications like torsion, rupture, infection, malignant transformation etc.1-4 In our patient, the presenting complaint was unusual which made the diagnosis difficult. Ultrasound and CT scan pointed out this pathology, while abdominal and pelvic examination was unremarkable. Oophorectomy of right ovary was done which removed the cyst. Moreover, we performed a primary repair of the rent in the bowel wall, as no signs of malignancy were evident. Wide resection of rectum was deemed unnecessary. Although, Kizaki et al4 performed an upper anterior resection of the rectum in their patient, they concluded that it was unnecessary and a simple closure was thus carried out. Pathology report excluded malignancy and supported our decision.

Figure-2: Contrast-enhanced computed tomography (CT) scan of Pelvis showing the dermoid cyst of right ovary attached to rectum wall.

Figure-3: Peroperative findings: The dermoid cyst of right ovary with hair.
The underlying mechanism leading to fistula formation is mostly inflammatory. However, various causative factors like leaks from the cyst causing adhesions, torsion, trauma, infection or malignant transformation can also cause such a pathology.\textsuperscript{4,5} In our case, compression on the right lateral rectal wall leading to ischaemic necrosis was the most probable cause of fistulisation into the rectum. Fistula formation relating to dermoid ovarian cyst is rare but has been reported in the literature in various sites like urinary bladder, vagina, sigmoid colon, transverse colon and rectum etc.\textsuperscript{3} Dermoid ovary causing rectal fistulisation is seen in less than 1% of the patients. Such patients present with diarrhoea or constipation, pain and bleeding etc.\textsuperscript{4} Quite surprisingly, our patient had none of these complaints, except for hair coming out of the anal orifice. Suman et al\textsuperscript{3} presented a patient with hair coming out through the urethra which was later diagnosed as a dermoid cyst perforating into the urinary bladder. Variable clinical presentations can produce challenges for diagnosis of this pathology. Ultrasound and CT scan are very helpful investigations for appropriate diagnosis. Treatment is always surgical with good results.

**Conclusion**

A dermoid cyst of the ovary is a common condition in females which can present with a wide spectrum of clinical presentations. Hair coming out of the anal orifice is itself a rare phenomenon and is rarely linked to ovarian pathology. This case report explains the diversity related to the clinical presentations of this disease and may be helpful for the proper understanding, early diagnosis and effective management of the disease.

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**References**