Endosalpingiosis in a Young Female Presenting As Acute Abdomen: A Rare Clinical Presentation

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Abstract
We are reporting a case of Endosalpingiosis which presented as a cystic mass and peritoneal implants. Clinically and radiologically, this was interpreted as an ovarian tumor. Mullerianosis is a very rare benign tumor-like lesion. Awareness of this lesion is necessary to avoid misdiagnosis by clinicians, radiologists, and pathologists.

Keywords: Endosalpingiosis, Mullerianosis, Fallopian tube disease.

Introduction
Endosalpingiosis describes the ectopic growth of fallopian tube epithelium [1]. Endosalpingiosis, endometriosis and endocervicosis constitute the triad of non-neoplastic disorder of the Mullerian system. The pathologies are found in isolation but are more commonly found in association with one another [2, 3].

The diagnosis of these pathogenesis is made histologically. In case of endosalpingiosis, pathology confirms the presence of tube like epithelium containing 3 type of cells ciliated, columnar cell, non ciliated, columnar mucinous secretor cells and intercalary or peg cell [4,5].

We report a case of young women with acute pain abdomen diagnosed as Endosalpingiosis.

Case Presentation
A 22 year old Asian unmarried women came with compliants of irregular cycle, acute pain abdomen and low backache. Her personal medical and surgical history was uneventful. USG showed bilateral multi follicular ovaries. MRI showed endometriotic focus on posterior uterine surface. Diagnostic laparoscopy was done, right side fimbrial cyst seen, left side two paraovarian cysts seen in broad ligament. Cystectomy done and histopatholgy report showed Endosalpingiosis. Coexisting black peritineal spots were seen on and in between uterosacral region, which were excised, histopathology report showed as endosalpingiosis.

Histopathology Report
Right fimbrial cyst – cyst wall composed of fibrocollagenous tissue lined by tubal epithelium like columnar to cuboidal cells
Left two Paraovarian cyst – cyst wall composed of fibrocollagenous tissue lined by tubal epithelium Peritoneal implants exised – fibroadipose tissue lined by columnar ciliated epithelium of tubal type.
Fig 1 - Uterus with bilateral adnexa showing right side fimbrial cyst and left side 2 paraovarian cyst

Fig 2 - Gross laparoscopic picture of paraovarian cyst arising from broad ligament.

Fig 3 - Laparoscopic peritoneal implant excision which were present on and inbetween Uterosacrals

Fig 4 - Microscopic examination – Fallopian tube epithelium (H & E, X100)

**Discussion**

Endosalpingiosis is a benign condition characterized by presence of ectopic epithelium with tubal differentiation, which involves structures of female genital tract, peritoneum and sub-peritoneal tissue (uterus, ovaries, fallopian tubes, bladder, colon, omentum, lymph nodes and skin. The pathogenesis of this lesion is still in debate. Pathogenesis is believed to be metaplastic transformation of coelomic epithelium tube like epithelium, \(^1,6,7\). But along with it developmental theory and implantation theory also have been put forward.\(^{16}\)

It is generally derived from secondary Mullerian system, which consists of structures covering the peritoneal mesothelium, the adjacent mesothelium of small pelvis and lower part of female abdominal cavity. Proliferation of these structures can result into three different type of lesion: endometriosis which occurs most frequently and less frequently endosalpingiosis and endocervicosis.\(^{12}\)

Most cases have been reported in postmenopausal women \(^8,9,10\), but few cases have been reported in younger patients \(^11\).

Endosalpingiosis may present with clinical symptoms such as pelvic pain, pelvic mass, infertility, low backache and urinary symptoms \(^13\).

Isolated endosalpingiosis with vaginal fistulization after hysterectomy has also been noted \(^15\). Differential diagnosis for Endosalpingiosis are endometriosis, endocervicosis, multiple peritoneal inclusion cyst, benign cyst mesothelioma and adenocarcinoma \(^14\).
Conclusion
Endosalpingiosis is benign condition but it may present as large mass or may spread to various organs like uterus, ovaries, bladder, liver, omentum, peritoneum and umbilicus and may mimic malignancy. Endosalpingiosis is confirmed by histopathological examination. Awareness of this rare lesion is helpful for the clinician and radiologists to avoid a misdiagnosis of ovarian tumor. Pathologists should not misdiagnose this lesion as a malignancy and should differentiate it from adenocarcinoma and mesothelioma with appropriate immunostaining if the morphological diagnosis is difficult.

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