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CASE REPORT

Case Report of Endometriosis with Synchronous Carcinoma Endometrium of Uterus and Carcinoma of the Ascending Colon. An Association or Coincidental?

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Introduction

Endometriosis is the presence of endometrial cells in the uterine cavity outside the uterus. Incidences have been found over the ovary, pelvic peritoneum, bladder, pelvic vault after hysterectomy, bowel, and previous scar site. Endometriosis may act as a risk factor for malignancy like endometrioid and clear cell carcinoma of the ovary [1]. Endometriosis may also be associated with endometrial malignancy because of the common etiological mechanism of excessive estrogen stimulation associated with chronic inflammation. But this association of endometriosis as a risk factor for carcinoma endometrium is conflicting as per the literature [2]. We report a case of endometriosis with lynch syndrome type II presenting with synchronous carcinoma of the endometrial cells of the uterus and carcinoma ascending colon.

Case History

A 43-years-old female with one living issue, BMI 23 kg/m2 presented to the clinic with the chief complaint of menorrhagia for 5–6 months. She underwent further evaluation and dilatation & curettage was performed. Histopathology confirmed it to be endometrioid adenocarcinoma of the uterus. Preoperative imaging (PET-CT scan) revealed a 2×2 cm mass in the uterus along with another partially necrotic 43×27 mm mass (max. SUV 14) in the right upper lumbar level anteriorly along the bowel wall with partial mesenteric fat intussusceptions along with it with a possible diagnosis of the primary omental or exophytic lesion. As per the standard treatment protocol for carcinoma endometrium of the uterus, the patient was planned for laparoscopic comprehensive surgical staging. Intra-operative findings were suggestive of endometriosis involving Pouch of Douglas, presence of endometriotic recto-vaginal nodule, posterior peritoneum endometriosis—E3a1b1c, as per ENZIAN classification of deep infiltrating endometriosis, 2012 (Fig. 1). Omentum was grossly normal and no significant nodule was found as suspected in the preoperative PET-CT scan report. Exploration of the right side of the bowel revealed an approximately 5×5cm solid intraluminal mass in ascending colon, approximately 5 cm below the hepatic flexure. As per the steps of comprehensive surgical staging for carcinoma endometrium, the peritoneal wash was taken for cytology, type A hysterectomy was done along with bilateral salpingo-ophorectomy, bilateral systematic pelvic and para-aortic lymphadenectomy along with omental biopsy was performed. Additionally, excision of deep infiltrating endometriosis at the Pouch of Douglus, posterior peritoneum, and recto-vaginal nodule was done. Per-operatively, a sample tissue biopsy was sent from ascending colon mass for the frozen section which revealed it to be a malignant lesion. Further, right hemi-colectomy was proceeded with adequate proximal and distal margin using G.I. endo-stapler followed by an ileal—transverse colon, end-to-end anastomosis done with G.I. endo-stapler without any divergent stoma. The post-operative course was uneventful. The final histopathology report of the specimen revealed well-differentiated endometrioid adenocarcinoma of the endometrium (FIGO Stage1). The right hemicolectomy specimen revealed mucinous adenocarcinoma of ascending colon (TNM Stage 1) (Fig. 2). Posterior peritoneum

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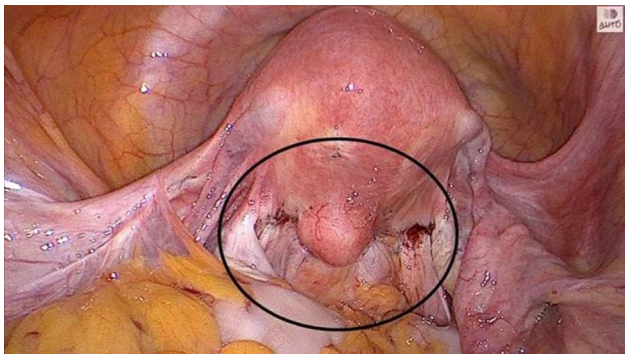

Fig. 1 Endo-view showing deep infiltrating endometriosis in pouch of douglas

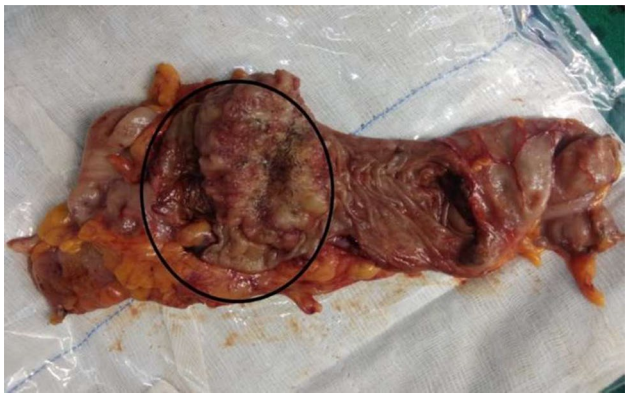

Fig. 2: Cut section of right hemi-colectomy specimen

and recto-vaginal nodule specimen confirmed endometriosis. Genetic testing was performed based on suspicion of Lynch type II syndrome in which MSI-H gene defect was found positive in this patient. Based on this finding patient relatives were advised for further genetic counseling and testing for lynch syndrome.

Discussion

Endometriosis implied as an associated risk factor for carcinoma endometrium is discordant even in our case report. Endometriosis presence with carcinoma endometrium might be coincidental in our case report, as synchronous detection of carcinoma endometrium and carcinoma colon in our case are part of lynch syndrome. The same theory is also substantiated by a study by Johnatty et. al [2]. The association between endometriosis and carcinoma endometrium is debatable. But there are few studies that corroborate endometriosis as an associated risk factor for endometrial malignancy. In our case report patient is comparatively younger, and uniparous with low BMI, as commented by other studies favoring endometriosis association with carcinoma endometrium patients [2]. There are studies in the literature as by Painter et. al. supporting the shared genetic correlation between endometriosis and carcinoma endometrium [3]. We get the same finding of endometriosis with synchronous hereditary familial cancer due to DNA mismatch repair gene defect in our case report. This gives us some cue to further study this gene defect to correlate the association between endometriosis and carcinoma endometrium. Hereditary non-polyposis colorectal cancer (HNPCC) is common, accounting for about 4–6% of the total colorectal cancer cases. It is subdivided into two clinical subsets (1) Lynch syndrome type1, or site-specific colonic cancer, and (2) Lynch syndrome type 2 which includes colonic cancer along with extracolonic cancer, particularly carcinoma of the endometrium, stomach, biliary, pancreatic, and urinary tract. In women with Lynch syndrome, there is the lifetime risk of endometrial cancer approximately 40% to 60%. In a population-based study lynch syndrome is found in 2.3% of cases of endometrium cancer. The mean age of diagnosis for endometrial cancer in Lynch syndrome is 47 years which is substantially lower than the mean age of diagnosis in the general population. In addition, there is a 50% risk of having another primary malignancy within 15 years in the affected individuals of lynch syndrome. In our study, there was a synchronous presence of both malignancies at an early stage. The majority of the colon cancer in Lynch syndrome occurs on the right side (70%) of the colon, as collaborated in our study. More than 90% of Lynch syndrome is caused by MLH1 and MSH2 mutations. The same finding was discovered in our study. As per Mehta et. al. study, a specific pathogenic mutation identified in a patient acts as a founder mutation for the family [4]. So, detailed genetic counseling with simple site-specific testing should be offered to all relatives at risk. As per recent studies patient with Lynch syndrome-associated endometrial cancer has an even better prognosis compared to sporadic and other mismatch repair gene defect cases of endometrial cancer. To conclude, as per available literature, endometriosis might be associated with carcinoma endometrium by multiple factors as the common etiological mechanism of hyperestrogenism, sharing genetic correlation, but still, it is not a proven risk factor for carcinoma endometrium. Further, more large studies are required in order to confirm the link between diagnosis of endometriosis and risk of endometrial carcinoma development.

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Declarations

Conflict of interest The authors declare that they have no conflicts of interest and nothing to disclose.

Human and animal rights Research involving human participants and/or animals: It is a retrospective original case report.

Informed consent Informed consent was obtained from the participant included in the study.

References

1. Dawson A, Fernandez ML, Anglesio M, et al. Endometriosis and endometriosis-associated cancers: new insights into the molecular mechanisms of ovarian cancer development. Cancermedicalscience. 2018;12:803.
2. Johnatty S, Stewart C, Smith D, et al. Co-existence of leiomyomas, adenomyosis and endometriosis in women with endometrial cancer. Sci Rep. 2020;10(1):3621.
3. Painter J, Mara T, Morris A, et al. Genetic overlap between endometriosis and endometrial cancer: evidence from cross-disease genetic correlation and GWAS meta-analyses. Cancer Med. 2018;7:1978–87.
4. Mehta A, Gupta G. Lynch syndrome—It's time we start detecting it. J Curr Oncol. 2018;1:55–60.