CASE REPORT

Primary Malignancy of the Salpinx: A Case Series and Review

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Abstract

Aim: To analyze the case series of an incidentally detected primary fallopian tube cancer with various presentations, histopathological types, and management.

Background: Carcinoma of the fallopian tube/salpinx being one of the rarest gynecological malignancies is most often incidentally diagnosed while operating for benign gynecological diseases. These carcinomas have been included under the term epithelial ovarian cancers which include ovarian, fallopian tube, and pelvic carcinomas, and the management techniques are the same for all three diseases.

Case description: We have discussed a case series of two patients with incidentally detected fallopian tube carcinoma who presented with different clinical presentation and were incidentally detected during surgery with the management strategies undertaken for these patients along with a review of the literature in an attempt to clarify issues regarding presentation, diagnosis, and management of this condition.

Conclusion: A correct preoperative diagnosis is made in very few cases. The Latzko's triad of watery vaginal discharge, a colicky lower abdominal pain, and a pelvic mass typical of a fallopian tube carcinoma are noted in very few patients. These two cases are being reported for their diagnostic dilemma, which resulted due to its rarity, in spite of having a classical clinical presentation.

Clinical significance: Fallopian tube carcinoma has been a very infrequently encountered, often misdiagnosed genital malignancy which has been on a constantly rising trend, but once diagnosed, its treatment is very similar to epithelial ovarian cancer.

Keywords: Carcinoma, Chemotherapy, Fallopian tube, Ovarian cancer.

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Introduction

Primary carcinoma of the fallopian tube is one of the infrequent gynecological malignancies, which accounts for 0.18–1.6% of all malignancies of the female genital tract. It was first described by Renaud in 1847.[1] The clinical behavior, dissemination pattern, response to surgery, and chemosensitivity are so indistinguishable between fallopian tube, ovarian, and primary peritoneal carcinomas that throughout the literature, they have been included under the term of epithelial ovarian cancer (EOC), and the same treatment strategies have been applied to all three diseases.[2]

In the past decade, it has been acknowledged that serous tubal intraepithelial carcinomas (STICs) are likely precursors for high-grade serous carcinomas (HGSCs), and the theory that all epithelial carcinomas have an extraovarian origin specifically from the fallopian tube has been braced by evidence.[2] The patients may present with a pelvic mass, pelvic pain, and serosanguineous vaginal discharge which comprises the Latzko's triad. Most of the times, these symptoms are rarely seen, and fallopian tube carcinoma (FTC) is an incidental finding in patients undergoing surgery for benign conditions like uterine prolapse, peptic ulcer, cesarean section, and ectopic pregnancy.[3]

In this case series, we shall discuss about two such patients who were incidentally diagnosed to have high-grade unilateral fallopian tube carcinoma at the time of a benign gynecological surgery and the steps taken for further management of the same.

Case 1

A 49-year-old menopausal patient, para 1 living 1, presented with complaints of watery discharge per vagina since the past 1 year. She had a significant past history of undergoing bilateral modified radical mastectomy for bilateral invasive ductal carcinoma 7 years back and had finished six cycles of adjuvant chemo and radiotherapy. On pelvic examination, there was watery discharge from the cervix, and the cervix appeared to be flushed with the vagina. Bimanual examination was normal. On investigation, the Pap smear and biopsy report were normal. The CA-125 level was 60 U/mL. The transvaginal ultrasound showed a collection in the uterus of 10 × 6 × 3 mm in size. Bilateral ovaries appeared normal. On CT scan, the left fallopian tube appeared bulky and thickened. In view of the previous history of breast carcinoma, the patient was planned for a total abdominal hysterectomy with bilateral salpingo-oophorectomy. Intraoperatively, a distended left fallopian tube of size 4 × 4 cm was firm to hard in consistency. The frozen section (Fig. 1) revealed a serous carcinoma of the left fallopian tube. Hence, a decision for infracolicomentectomy with bilateral pelvic lymph node dissection was also done. The final histopathology reported a HGSC of the left fallopian tube stage 1A (Fig. 2). After discussing with the oncologist, the patient was put on adjuvant chemotherapy and was advised a regular follow-up.

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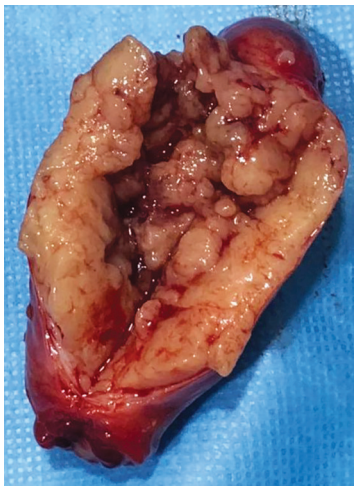

Fig. 1: Pathological specimen of the left fallopian tube, showing a complex adnexal mass

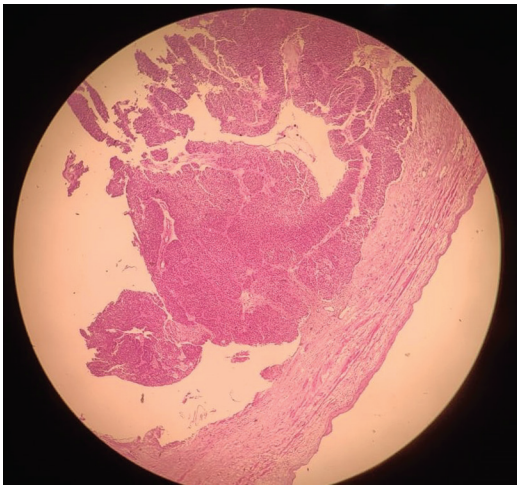

Fig. 2: Cross-section of the fallopian tube with tumor: (1) Presence of stratification with high n:c ratio; (2) Pleomorphic hyperchromatic nucleus with loss of basal polarity and moderate cytoplasm

Case 2

A 61-year-old menopausal patient, para 2 living 2, presented with postmenopausal bleeding since 6 months. She had a past history of evaluation of the same, for which an endometrial biopsy was done which was negative for dysplasia or malignancy. There was no significant family history. She had a normal bimanual examination. The CA-125 level was 7.6 U/mL, and with her ultrasound finding being unremarkable, she was further investigated and the MRI revealed a solid well-marginated lesion in the left adnexa which was 4 × 2.3 × 2.2 cm, suggestive of an ovarian mass or a hydrosalpinx. The decision for a total abdominal hysterectomy with bilateral salpingo-oophorectomy was taken. Intraoperatively, a mass in the left fallopian tube of size 4 × 3 cm in diameter was noted. The frozen section reported a neoplasm of the left fallopian tube. Hence, a decision for a total abdominal hysterectomy with bilateral salpingo-oophorectomy with infracolicomentectomy, appendicectomy, and bilateral pelvic lymph node dissection was undertaken. The histopathologic examination of the specimen returned with HGSC

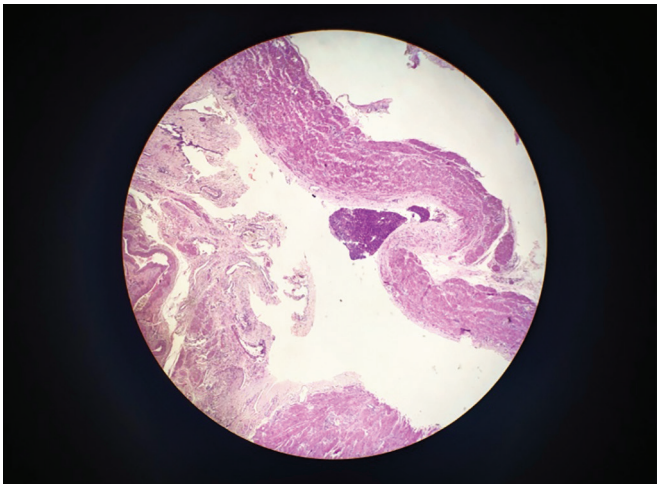

Fig. 3: Cross-section of the fallopian tube with tumor. (1) Epithelial stratification, lack of ciliated cells, high n:c ratio; (2) Nuclear pleomorphism, hyperchromasia, and loss of polarity

of the left fallopian tube stage 1A (Fig. 3). After discussing with the gynecological oncologist, she was advised chemotherapy which the patient refused and hence was told to be on a close observation with a regular follow-up and is presently doing well.

Discussion

Primary fallopian tube carcinoma (PFTC), being an uncommon gynecological condition, causes a diagnostic dilemma to the clinician due to perplexing nonspecific symptoms, clinical findings, and often mimicking other pelvic pathology. The incidence of STIC in patients with known BRCA mutations or a strong family history of breast or ovarian cancer has been estimated to be 0.6–6%.[1]

BRCA status was unknown for both our patients. The modified diagnostic criteria to distinguish FTC from ovarian and other primary malignancies according to Sedlis are "(1) the main tumor arises from the endosalpinx; (2) the histological pattern reproduces the epithelium of the tubal mucosa; (3) transition from benign to the malignant tubal epithelium is demonstrable; and (4) the ovaries or endometrium are either normal or contain a tumor that is smaller than the tumor in the tube."[3] An accurate diagnosis of FTC was made preoperatively in only 4.6% of the cases. In a study, it was observed that CA-125 was identified in 87% of FTC cases; hence, it was a useful tumor marker in selected cases. Transvaginal sonography was found to be both accurate and sensitive in the identification of a fallopian tube pathology in many studies. In one of our cases described above, an MRI was done which pointed out an adnexal mass which was not very specific, but in a few studies, it was observed that MRI findings, such as "sausage-shaped features, hydrosalpinges, and intrauterine fluid accumulation," are highly specific and sensitive for diagnosing PFTC. Despite the aforementioned features, it is arduous to distinguish between the two genital carcinomas due to the lack of broad imaging studies. It is very much similar to an EOC and has been observed that around two-thirds present at stages III and IV, and the rest are stages I and II at diagnosis. The aim of the treatment is a complete removal of carcinosis, which is total abdominal hysterectomy with bilateral salpingo-oophorectomy and infracolicomenectomy, appendicectomy, peritoneal washings, and peritoneal biopsies.

Klein et al. found that "additional radical lymphadenectomy provided a remarkably better 5-year survival rate of 83%, whereas the rest of them is only 58%."[4] Therefore, a routine lymph node dissection of the pelvic and para-aortic nodes is needed for proper staging.

The rarity of the disease made it unfeasible to conduct trials of adjuvant treatment regimens, and hence, even in early stage, adjuvant therapy which is a combination of paclitaxel and carboplatin has been suggested and has been a cornerstone for more than 15 years. There are many novel therapies for both primary and recurrent diseases, which are under trial, and the introduction of these in the treatment of FTC may change the course of diseases in the future.[2]

Conclusion

Treatment of infrequent malignancies like FTC is always taxing, as they have no standard therapy but as they resemble ovarian carcinoma, which has led to its treatment in a similar line. In spite of having a classical clinical presentation, we still faced a preoperative diagnostic dilemma but our surgical treatment was adequate and postoperative adjuvant chemotherapy was planned.

Current knowledge of PFTC has made it evident that it is a multietiological disease with contrasting aspects, and its precise diagnosis and differentiation from advanced EOC are salient for better management of the same.

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References

1. Vaughan M, Modesitt S, Mo Y, et al. Serous tubal intraepithelial carcinoma: an incidental finding at the time of prophylactic bilateral salpingo-oophorectomy. Case Rep Obstet Gynecol 2015;2015:1–4. DOI: 10.1155/2015/760429.
2. Stasenko M, Fillipova O, Tew W. Fallopian tube carcinoma. J Oncol Pract 2019;15(7):375–382. DOI: 10.1200/JOP.18.00662.
3. Nordin A. Primary carcinoma of the fallopian tube. Obstet Gynecol Survey 1994;49(5):349–361. DOI: 10.1097/00006254-199405000-00026.
4. Klein M, Rosen A, Lahousen M, et al. The relevance of adjuvant therapy in primary carcinoma of the fallopian tube, stages I and II: Irradiation vs chemotherapy. Int J Radiat Oncol Biol Phys 2000;48(5):1427–1431. DOI: 10.1016/s0360-3016(00)01381-x.