Case Report

Fallopian tube carcinoma presenting as ovarian mass: a case report.

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Abstract

The fallopian tubes are frequently involved in benign pathologies, however, primary malignancy is very rare at this site. Due to low suspicion, such cases are often confused with other gynecological malignancies. We report here a rare case of fallopian tube carcinoma presented as an ovarian mass.

Keywords: Fallopian tube carcinoma; STIN; Slpingo-oophorectomy

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INTRODUCTION

The fallopian tubes are frequently involved in benign gynaecological conditions and are common sites for metastases. Primary malignancies are rare at this site. Primary adenocarcinoma of the fallopian tube is a rare gynecological malignancy affecting females in the fifth and sixth decade of their lives. The incidence varies from 0.16 to 1.6 % with an average of 0.3 %. The rarity of such types of carcinoma mandates to report it as an individual case. Primary fallopian tube carcinoma has been described in high-risk breast–ovarian cancer families with germ-line BRCA-1 and BRCA-2 mutations.[1] The true incidence of primary fallopian tube carcinomas has been underestimated, because they may have been mistakenly identified as an ovarian tumour due to its histological resemblance to it. Bilateral fallopian tube cancer is reported to occur only in 20% of the cases.[2]A bilateral primary fallopian tube tumour has to be differentiated from a secondary tumour. Metastasis to the tubes is a bilateral process in 80% of the cases, with ovarian, endometrial or gastrointestinal cancer usually being the primary lesion.[3] The vast majority (>95%) of fallopian tube cancers are papillary serous and adenocarcinomas.[4] More often, tumors can grow from smooth muscle fallopian tubes – sarcomas and from other cells of tube – transitional cell carcinomas. The etiology of adenocarcinoma of the fallopian tube is uncertain. The risk factors are thought to be infertility, nulliparity or low parity, pelvic infection (chronic tubal inflammation), and a family history of ovarian cancer. The present report presents a rare case of fallopian tube carcinoma presented as an ovarian mass.

CASE REPORT

A 58 year old multiparous postmenopausal woman was admitted with the complaint of pain in the lower abdomen. Clinical evaluation revealed a left-sided adnexal mass of suspected ovarian origin with solid and cystic components with mild ascites. Tumor markers were assayed, CA-125 was 52

U/ml. Withfindings of a left adnexal mass on CECT and marginallyraised tumor markers, the patient was counseled and accepted for exploratory laparotomy and surgical staging. Minimal straw-colored ascitic fluid was present, which wassaved for cytology for malignant cells. Grossly left adnexa showed a cylindricalsolid mass with papillary projections involving whole of the left tube measuring 20×6×6 cms (Fig 1). Both ovaries were atrophied. The omentum looked normal in appearance and texture. The parietal and visceral peritoneum looked grossly normal. Total abdominal hysterectomy with bilateral salpingo oophorectomy, bilateral pelvic lymph node sampling, and omental biopsy was done. Remaining abdominal structures, including the stomach and intestines, were thoroughly visualized and palpated and felt to be normal. A cut-section of the mass showed solid and cystic areas filledwith clear fluid. A microscopic section through the solidleft tubal mass showed the fallopian tube with a tumorcomposed of round to oval cells with enlarged pleomorphicnuclei and eosinophilic cytoplasm. The stroma showed mixed cell infiltration and thetumor was found invading the full thickness of the wall ofthe tube and reaching up to the serosa. The report was suggestive of serous adenocarcinoma of the leftfallopian tube (Fig. 2), grade 2, invading the muscularispropria,reaching up to the serosa. There was no vasculo-lymphaticinvasion seen. The uterus, cervix, vaginal flaps, and bothovaries were negative for malignancy. Ascitic fluid,omental biopsy, and pelvic lymph nodes were free from the tumour. She received an adjuvant chemotherapy with carboplatin and paclitaxel.

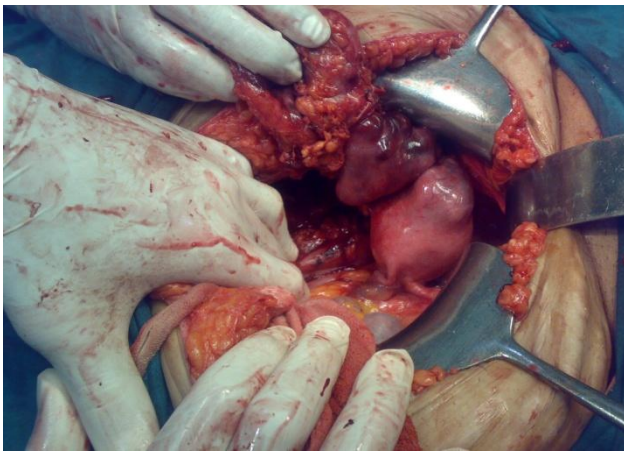

Figure 1 Intra-operative picture of the mass

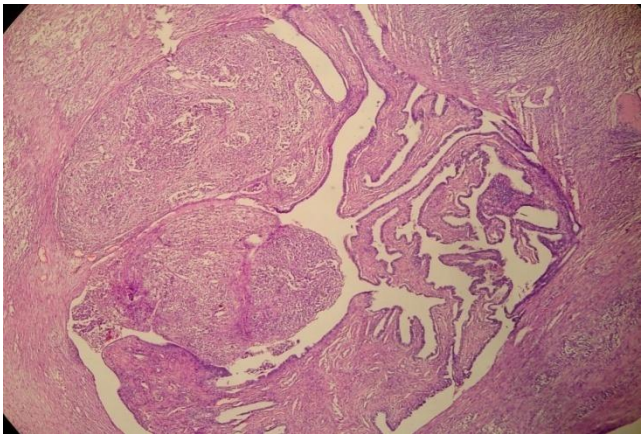

Figure 2 Microscopic picture showing serous adenocarcinoma of fallopian tube

DISCUSSION

Primary bilateral fallopian tube carcinoma is very rare. It is common in postmenopausal women in their fifth or sixth decades the average age of occurrence being 55 years. However, primary fallopian tube cancer has been reported in young girls aged 17–19 years. Most of the patients are asymptomatic or they tend to present with non specific or insidious symptoms. In most of these patients, infertility and chronic pelvic disease are commonly associated. These factors were not seen in our patient. The clinical triad which was described by Latzko in 1916, of a vaginal watery discharge, a colicky lower abdominal pain and a pelvic mass, is rarely reported and all these features are usually present in less than 15% of the cases.[5] The pathognomonic feature is 'hydropstubaeprofluens'. The intermittent colicky lower abdominal pain, which is due to the distension of the fallopian tube, with the fluid and pain, is relieved by the passage of a watery discharge per vagina. This malignancy should be considered in the differential diagnosis of the perimenopausal and the postmenopausal women who presented with complex adnexal masses, an unexplained uterine bleeding, abnormal glandular cells on the cervico-vaginal smears and complicated pelvic inflammatorydisease.

Although the classic triad of symptoms is said to be pathognomonic, the correct preoperative diagnosis is made in only 4% of the cases.[6] Often, the diagnosis is mistaken for ovarian cancer or a tubo-ovarian mass. The vaginal cytology findings are positive in only 10-20% of the patients. The imaging modalities like ultrasound and the CT/MRI features of tubal cancer are difficult to

differentiate from those of ovarian cancer, unless the ovaries are separately visualized from the sausage shaped tubal mass. Fallopian tube cancers are often found incidentally in asymptomatic women at the time of abdominal hysterectomy and bilateral salpingo-oophorectomy. Transvaginalsonography can be of assistance in evaluating abnormal adnexal masses and may aid in early diagnosis of fallopian tube cancer. If sonography demonstrates that an adnexal mass is solid or has both solid and cystic components, we should think to a neoplastic tumor, the size does not matter anymore. Visualizing the fallopian tubes by transvaginal ultrasonography for identifying incipient stages of salpingeal cancer is difficult and information is still inconclusive. The fallopian tubes are usually not visualized during routine abdominal sonography because of the lack of an acoustic interface, but the outline of the fallopian tubes is possible if there is a sufficient quantity of fluid in the cul-de-sac. Because of the rarity of fallopian tube cancer, reports of the sonographic appearance are limited. However, the sonographic detection of a solid or cystic adnexal mass that is separate from the ovary, in a postmenopausal woman, should induce a suspicion for fallopian tube carcinoma. Sonographic evaluation of the fallopian tubes presents one of the greatest challenges for the sonographer. Presently, sonography is unable to diagnose fallopian tube cancer, but it may be a differential diagnosis when an adnexal mass is identified.In one in every 500 to 1000 salpingectomies of women over age 50, the pathologist will encounter a significant intraepithelial proliferationi.e. serous tubal intraepithelial neoplasia (STIN) associated with a mutation in p53, that may either be a premalignant atypia (serous tubal intraepithelial lesion or STIL) or an intraepithelial carcinoma (STIC). This frequency increases to about 1 in 20 if the salpingectomy is part of a risk reducing procedure in a woman with a documented germ-line mutation in BRCA1 or BRCA2.The simplest explanation is that reactive oxygen species liberated during ovulation bring about DNA damage in the fimbria leading to p53 mutations. In routine specimens, it is recommended to look for STIL and STIC because there is some data suggesting that women with tubal carcinoma have a higher likelihood of harboring a BRCA mutation.The serum level of CA125 is elevated in advanced stages of serous ovarian and tubal cancer, therefore not being useful for incipient stages of these types of cancer. Diagnostic criteria for the diagnosis of tubal cancer:▪ The main tumor grossly should be in the tube;▪ Histologically, the tubal mucosa should be involved with a papillary pattern;▪ If the tubal wall is involved largely, transition from benign to malignant tubal epithelium should be identified.

The treatment approach is similar to that of ovarian carcinoma, and it includes a total abdominal hysterectomy and a bilateral salpingo-oophorectomy. An aggressive cytoreductive surgery with the removal of as much tumour as possible, is warranted in patients with advanced disease. A postoperative radiotherapy is no longer recommended due to its low efficacy and high rate of serious complications. Based on its propensity for a distant microscopic distant spread and recurrence, chemotherapy seems to have a strong rationale as an adjuvant treatment for the patients with early-stage disease.A single agent chemotherapy does not seem to be effective, while a platinum-based combination chemotherapy is the most commonly used adjuvant therapy, which is similar to that which is used for epithelial ovarian carcinoma patients. The reported overall responses rates are 53–92%.[7]

CONCLUSION

Primary fallopian tube carcinoma is a rare tumour which accounts for <1% of all female genital tract cancers. It is often mistaken for ovarian carcinoma and discovered intraoperatively. More extensive clinical research is needed to define aetiology, and to have diagnostic, management and prognostic markers.

REFERENCES

1. Aziz S, Kuperstein G, Rosen B, Cole D, Nedelcu R, McLaughlin J,et al. A genetic epidemiological study of carcinoma of the fallopian tube. GynecolOncol.2001;80:341–45.
2. Markman M, Zaino RJ, Fleming PA, Barakat RR. Carcinoma of the fallopian tube. In: Hoskins WJ, Perez CA, Young RC (eds) Principles and Practice of Gynecologic Oncology, Lippincott Williams and Wilkins, Philadelphia.2000; 1099 -112.

3. Nordin AJ. Primary carcinoma of the fallopian tube: a 20-year literature review. ObstetGynecolSurv.1994;49:349-61.
4. Jeung IC, Lee YS, Lee HN, Park EK. Primary carcinoma of the fallopian tube: report of two cases with literature review. Cancer Res Treat.2009;41(2):113–6.
5. Lawson F, Lees C, Kelleher.C. Primary cancer of fallopian tube. In: Studd J. Edition. Progress in Obstet and Gynecol. Churchill Livingstone. UK. 1996; 393-401.
6. Riska A, Lemien A. Updating on primary fallopian tube carcinoma. ActaObstetGynecol Scand. 2007;85:1419-26.
7. Peters WA 3rd, Andersen WA, Hopkins MP, Kumar NB, Morley GW. Prognostic features of carcinoma of the fallopian tube. Obstet Gynecol. 1988;71:757–62.

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