Huge Mucinous Cystadenocarcinoma with Mucocele of Appendix in a Postmenopausal Woman: Extremely Rare Case Report with Review of Literature

Rajshree Dayanand Katke

Obstetrics and Gynecology Department, Cama and Albless Hospital, Mumbai, Maharashtra, India

*Corresponding author: Medical Superintendent, Associate Professor and HOU, Obstetrics and Gynecology Department, Cama and Albless Hospital, Mumbai, Maharashtra, India, Tel: 91-022-22620390; E-mail: drrajshrikatke@gmail.com

Received date: 06 March, 2015; Accepted date: 16 March, 2015; Published date: 18 March, 2015

Copyright: © 2015 Katke RD. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Abstract

Ovarian tumour is not a single entity, but a complex wide spectrum of neoplasms involving a variety of histological tissues. The most common are the epithelial tumours forming 80% of all tumours. 80% are benign tumours, 10% borderline malignant and 8-10% malignant. Mucinous tumours represent about 8-10% of the epithelial tumours, they may reach enormous size filling the entire abdominal cavity. While mucinous cystadenomas themselves are not infrequent, majority of them (80%) are benign while only 10% of them are borderline and another 10% are malignant. Mucinous tumours of ovary are part of the surface epithelial-stromal tumor group of ovarian neoplasms, and account for approximately 36% of all ovarian tumors. Pseudomyxoma peritonei may present as a result of an ovarian mucinous tumor, however this is a rare cause of this condition, which is a rare condition. A more common cause of pseudomyxoma peritonei is a mucin-producing tumor of the appendix. Here we report a case of 72 years postmenopausal, posthysterectomy patient with huge ovarian mucinous cystadenocarcinoma associated with pseudomyxoma peritonii and mucocele of appendix. Exploratory laparotomy with excision of ovarian tumour and appendix was done. Histopathology report was mucinous cystadenocarcinoma of ovary with metastasis in appendix with fibrosis and calcification. Patient received adjuvant chemotherapy cycles and discharged in healthy condition.

Keywords: Huge ovarian mucinous cystadenocarcinoma; Pseudomyxoma peritonei; Mucocele of appendix

Introduction

Mucinous cystadenocarcinomas have origins from inclusion and invaginations of the ovarian celomic epithelium and persistence of millerian cells, or from wolffian epithelium and teratomas [1-4]. They often occur in the fourth and fifth decades, accounting for 25% of the ovarian tumors, 5% are bilateral and 15% are malignant [4]. Mucinous (25%) and serous (75%) cystadenomas account for 8 to 15% of all ovarian tumors [5]. The epithelium of the cysts is usually cylindrical and mono- or multi-stratified, and cuboidal epithelium is due to the pressure inside the cyst. The classical cells show clear cytoplasm and a hyperchromatic nucleus at the base. Extra-large benign and malignant cysts of the ovary are uncommon and involve diagnostic and management challenges, and determinations of cancer antigen (CA)-125 can help to identify epithelial tumors of the ovary. Giant mucinous cystadenocarcinomas are very rare. This report concerns an unsuspected giant mucinous ovarian cystadenocarcinoma in a 72-year-old woman with a huge abdominal enlargement with mucocele of appendix which was accidentally found during laparotomy (Figures 1-3).

Case Report

A 72 years postmenopausal female married since 56 years, p7l7a1, tubal ligation done 30 years back and vaginal hysterectomy done 25 yrs back came to our out patient department with complaints of distension of abdomen and difficulty in micturition since 6 months. Her complaints gradually increased in intensity with time. Patient had similar complaints 25 years back which were relieved after vaginal hysterectomy. Patient was a known case of hypertension since 1 year and was taking tablet amlodipine 5 mg once a day since 1 year. On examination her pulse was 70/min and her blood pressure was 130/82 mmHg. Her cardiorespiratory findings were unremarkable. On per abdomen examination a mass arising from pelvis, corresponding to 22 weeks size uterus extending upto flanks was palpated. The mass was hard irregular with restricted mobility.on per speculum examination vault was healthy. On per vaginal examination the findings of per abdomen examination were confirmed. On per rectal examination rectal mucosa was free. Her routine blood and urine investigations were within normal limits. Her tumour marker levels on 8/10/14 were as follows bHCG-2.23 miu/ml (0-5 mIU/ml), AFP-1.46 iiu/ml (0.5-5.5 IU/ML), CEA-125.10 ng/ml (0-2.5 ng/ml) and CA125-10.33 u/ml (normal 0-35 u/ml). Her pap smear had no evidence of malignancy. Her ultrasound pelvis was suggestive of large 17.5 cm × 16.7 cm × 11.9 cm well defined, predominantly cystic mass with multiple septae within. It was seen in pelvis and lower abdomen? Ovarian mass. Also there was mild to moderate ascites. Her computed tomography scan of abdomen pelvis was s/o evidence of 14.1 cm × 16.3 cm × 14.4 cm (AP, ML, SI) large multilobulated cystic density mass lesion with thin enhancing wall and septae seen in pelvis extending upto supraumbilical region at l3 vertebral level, more along right side displacing bowel loops superiorly. Both ovaries not seen separately from lesion. Moderate ascites with omental thickening and mesenteric haziness was seen. Mild hepatomegaly with fatty liver. Her 2D ECHO was normal. Exploratory laparotomy with excision of rt. Ovarian mass with appendicectomy was done under spinal anesthesia. Intraoperatively, abundant mucinous ascitis was present, a huge ovarian mass of size 20 cm × 18 cm × 12 cm was found , mass was irregular shape, adhered to surrounding bowel loops and bladder anteriorly. Adhesions were carefully separated by blunt and sharp dissection. Bilateral ureters identified and secured. Appendix was
grossly enlarged and inflammed. The ovarian mass and appendix excised and specimen sent for histopathology examination. The patient withstood entire procedure well and there were no perioperative complications. Her final histopathology report was mucinous cystadenocarcinoma of ovary with metastasis in appendix with fibrosis and calcification (Figures 4 and 5).

**Figure 1:** Intraoperative picture of huge mucinous cystadenocarcinoma

**Figure 2:** Intraoperative picture of huge mucinous cystadenocarcinoma

**Figure 3:** Intraoperative picture of huge mucinous cystadenocarcinoma

Discussion

Mucinous ovarian cancer is a type of epithelial ovarian cancer that begins at the ovaries of a female and if left unattended to can even reaches other parts of the body like liver, lungs, breasts, brain and lymphatic nodes. They are most commonly found in women who are in the age range of 65 to 85 years, but can also be seen in women who are much younger. Mucinous ovarian cancer will lead to the improper functioning of the process of repair and reproduction of cells in the ovaries. Mucinous tumours are part of the surface epithelial-stromal tumor group of ovarian neoplasms, and account for approximately 36% of all ovarian tumors. Approximately 75% are benign, 10% are borderline and 15% are malignant. Rarely, the tumor is seen bilaterally, approximately 5% of primary mucinous tumors are bilateral. Benign mucinous tumors are typically multilocular, and the cysts have a smooth lining of epithelium that resembles endocervical epithelial cells with small numbers of gastrointestinal-type epithelial cells. Borderline and malignant mucinous tumors often have papillae and solid areas. There may also be hemorrhage and necrosis. It is well documented that malignancy may be only focally present in mucinous neoplasms of the ovary, so thorough sampling is imperative. The major distinguishing features of mucinous tumors are that the tumors
are filled with a mucus-like material, which gives them their name; this mucus is produced by mucus-secreting goblet cells very similar to the cells lining normal intestine. These tumors may become very large, some have been weighed as large as 25 kilograms. Cystadenocarcinomas contain a more solid growth pattern with the hallmarks of malignancy: cellular atypia and stratification, loss of the normal architecture of the tissue, and necrosis. The appearance can look similar to colonic cancer. Clear stromal invasion is used to differentiate borderline tumors from malignant tumors. Pseudomyxoma peritonei may present as a result of an ovarian mucinous tumor, however this is a rare cause of this condition, which is a rare condition. A more common cause of pseudomyxoma peritonei is a mucin-producing tumor of the appendix. Since mucinous tumors arising from the ovary usually only involve one ovary, the presence of involvement in both ovaries with a mucinous tumor suggests that the tumor may have arisen in another location, and further study is warranted. The first line of treatment for mucinous ovarian cancer like any other cancer treatment is surgery. The surgery will be an attempt to physically remove the benign or malignant tumor caused in the female private area due to the presence of mucinous ovarian cancer. The normal surgical procedure to treat patients suffering from mucinous ovarian cancer is to remove the uterus, ovaries and fallopian tubes. Only by diagnosing the extent to which the mucinous ovarian cancer has spread in the patient’s body can a further treatment be suggested. A woman who is interested in conceiving despite suffering from mucinous ovarian cancer will be allowed to remove the ovaries and the fallopian tubes and the uterus will not be touched by the surgeon. Another type of surgical procedure that is followed by surgeons who are treating female patients suffering from mucinous ovarian cancer is debulking procedure which simply means removing of all mucinous cancer tumors that are more than one centimeter (Figures 6-8).

The histopathological features were suggestive of the tumour was lined by columnar epithelium, typically similar to endocervical epithelium. The cells were found to secrete thick, gelatinous mucus which filled the locules of tumour. 10-year survival rates for mucinous tumors is excellent in the absence of invasion. In the case of borderline tumors confined to the ovary and malignant tumors without invasion, the survival rates are 90% or greater. In invasive mucinous cystadenocarcinomas, the survival is approximately 30% [3].

Ovarian cancer usually spreads via local spreading into the peritoneal cavity followed by attachment to the peritoneum, and via local invasion into the bowel and bladder. This kind of tumor rarely spreads out of abdominal cavity; in our case the main localization of metastatic spread was in abdominal wall for two times before tumor spread into the liver. The incidence of positive nodes at primary surgery has been reported as high as 24% in patients with stage I disease, 50% in patient with stage II disease, 74% in patients with stage III disease, and 73% in patients with stage IV disease [6,7].

Conclusion
In a rare case Mucinous cystadenocarcinoma of ovary may be associated with pseudomyxoma peritonei and mucinous tumour of appendix A more common cause of pseudomyxoma peritonei is a mucin-producing tumor of the appendix. In this case despite diagnostic delay, the cystadenocarcinoma was successfully managed by surgical expertise before any dissemination. Patient received adjuvant chemotherapy and was discharged in healthy condition.

References