PERITONEAL AND OMENTAL CARCINOMATOSIS – A CASE REPORT

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Introduction

Tumors that involve the peritoneum and cause ascites are usually malignant, and metastatic peritoneal carcinomatosis is considerably more common than primary tumors. A wide variety of primary neoplasms may cause peritoneal and omental carcinomatosis, most commonly carcinomas of the ovary, gastrointestinal tract breast and lung. Extensive involvement of the peritoneal cavity with primary peritoneal carcinoma is, however, rare.Both primary ovarian carcinoma and primary peritoneal adenocarcinoma can present with carcinomatosis. Raised CA 125 antigen is present in the serum of patients with non-mucinous epithelial ovarian carcinoma.,primary peritoneal,endometrial carcinoma, endometriosis. Management of primary peritoneal adenocarcinoma has followed treatment of primary ovarian carcinoma with surgical debulking and adjuvant platinum-containing chemotherapy.
(McCluggag,e WG.,2005) Survival in primary peritoneal serous adenocarcinoma parallels survival of stage III–IV primary serous ovarian carcinoma. Immunohistochemical technology demonstrated marked utility for distinguishing primary peritoneal adenocarcinoma from other mimicking diseases in the setting of unknown primary peritoneal carcinomatosis. We present a case of peritoneal and omental carcinomatosis due to serous adenocarcinoma of unknown origin in a 45 year old female. Radiology, serum analysis of CA 125 and cytology yielded only inconclusivefindings. The availability of Immunohistochemistry lead to definitive diagnosis..

Case Presentation

A 45 year old previously healthy woman admitted to surgical unit teaching hospital kegalle psented with rapid onset of gross ascitis and loss of appetite for 1 month duration. physical examination revealed abdominal ascites and no palpable pelvic or abdominal masses. Laboratory data showed ESR 49.The peripheral blood count was unremarkable. Total plasma protein level was remarkably lowered and SGOT, SGPT within normal limits. The tumour marker CA 125 level was considerably elevated to > 400. (Normal value <35 U ml^{-1}). Mantoux test was Negative. Chest radiograph showed no pathological changes. Ultrasound imaging (US) of the abdomen and pelvis was normal except for the known ascites. Computed tomography (CT) of the abdomen and pelvis demonstrated ascites and omental thickening. US

and CT imaging failed to demonstrate any masses. Ovaries were normal. Ascitic fluid was positive for malignant cells consistent with adenocarcinoma of ovary or Gastrointestinal tract. Peritoneal fluid PCR analysis for tuberculosis negative. Upper gastrointestinal endoscopy was normal, colonoscopy couldn't perform. The gynecologic service concurred that the probability of a primary ovarian origin was remote.

Exploratory laparotomy was performed by the surgeon in the presence of consultant Gynaecologist. Penetration of the peritoneum immediately presented serous ascites. Intraoperatively, diffuse tumour infiltration with numerous micronodules and macronodules were found, simulating peritoneal or omental carcinoma. The omentum was grossly thickened. Most of the nodules coalesced to form large omental plaques (omental cakes). hepatic and bladder infiltration were detected. Macroscopically size of the ovaries was normal except small implants in the ovarian surface. specimens were taken from omentum, secondary deposits. Histologic evaluation of the submitted omentum specimen revealed a serous adenocarcinoma of unknown origin. Immunohistochemical analysis was not perfomed at the time of surgery .Post operatively period was uneventful and followed by course of chemotherapy as for ovarian carcinoma. Two years later Ultrasound scan was done, except 1.6 cm ×1.5 cm hypoechoic focal cyst in liver segment eight other organs were normal. Omentum and ovaries were normal. Most recent CA 125 found to be normal.

Discussion

The patient presented with a diagnosis of carcinomatosis of peritoneum with unknown primary. Radiological imaging demonstrated peritoneal carcinomatosis but could not identify a unique origin. Ovarian carcinoma is the most frequent cause of metastatic disease of the omentum. In this case, the ovaries were normal in size but showed surface nodularities similar to the pelvic peritoneal omental cakes. This finding was indicative of metastasis deposits in the ovaries and made a diagnosis of primary ovarian carcinoma less likely. Other tumors that frequently spread to the peritoneum include primary tumors arising from the stomach, colon, breast, pancreas, kidney, bladder, or uterus. No identifiable primary tumor was detected in this patient.

The differential diagnosis of malignant primary tumors of the peritoneum with omental involvement and a variable amount of ascites includes malignant peritoneal mesothelioma, peritoneal lymphomatosis, and primary serous papillary carcinoma of the peritoneum. Given the imaging studies performed in this patient, malignant peritoneal mesothelioma was not the most likely diagnosis. primary serous papillary carcinoma of the peritoneum (PSPCP) is a rare primary peritoneal tumor. It is believed to arise from the secondary müllerian system, which comprises the pelvic and lower abdominal mesothelial lining.The clinical and histologic appearances of PSPCP are similar to those of papillary serous ovarian carcinoma. The sizes of ovaries are usually normal, even

though implants may occur on the surface of the ovaries in patients with PSPCP. These findings were most likely with a diagnosis of PSPCP.

Conclusion

Most likely diagnosis of our case is primary peritoneal serous adenocarcinoma.

Immunohistochemical analysis leads to the correct identification of primary peritoneal serous adenocarcinoma while excluding alternate diagnoses. (Wesley, BVRB., 2007) Immunehisto chemistry ordered were CK7, CK20. Colon adenocarcinoma stains positive for CK20 negative for CK7. Both peritoneal and ovarian carcinoma positive for CK7. Since CK 7 was found to be positive and CK 20 was found to be negative in the absence of ovarian pathology most likely diagnosis is primary peritoneal carcinoma.

Consent

Written informed consent was obtained from the patient for publication of the study.

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