Well differentiated mesothelioma complicating endometrial carcinoma; a case report

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Summary

Peritoneal mesothelioma is a rare cancer of the abdominal cavity which has low malignant potential. Peritoneal mesothelioma can mimic other types of gynecologic malignancies. Careful clinical and pathologic evaluation is essential for an accurate diagnosis and treatment.

Key words: Peritoneal mesothelioma; Endometrial carcinoma; Immunohistochemistry.

Introduction

Peritoneal mesothelioma is a surface malignancy involving the serous surfaces of the abdominal cavity. Clinically it is regarded as a fatal disease that presents with progressive ascites at a relatively late stage of its natural history. The differential diagnosis between this rare tumor and both serous papillary carcinoma of the peritoneum and ovary can be problematic [1, 2].

It most commonly occurs in young women lacking a history of asbestos exposure. No uniform treatment recommendation has been established [3-5].

Case

An 83-year-old woman, postmenopausal for 35 years, was admitted to a colleague with the complaint of abdominal distension and difficulty in breathing. Medical examination and abdominal ultrasonography revealed that there was diffuse ascites with normal appearing ovaries and uterus. There was minimal endometrial irregularity at transvaginal ultrasonography. There were no abnormal findings other than ascites in the computerized tomography evaluation. Tumor markers were all within normal ranges (CA125, CA15-3, CA19-9 and CEA). The patient was consulted by an internist and a paracenthesis was carried out. Cytological evaluation of the specimen showed no malignant cells. An endometrial biopsy was attempted but insufficient tissue was reported. Laparotomy was planned. The abdomen was full of ascites (4 liters). Total abdominal hysterectomy with bilateral salphingo-oopherectomy was carried out. Infracolic omentectomy was done for minimally thickened omentum. Frozen analysis of the uterus revealed endometrioid endometrial carcinoma (grade 1 with no myometrial invasion). Full pelvic and paraaortic lymph node dissection was done. There was no visible or palpable tumoral invasion in the lymph nodes. Surgery ended after abdominal exploration and there was no other tumor found. The ascites was still unexplained at the end of the operation. The postoperative course was uneventful and the patient was discharged on the fifth day.

The omentum was suspicious for malignancy on the permanent paraffin-embedded pathologic evaluation. Immunohistochemistry was carried out and kalretinin, vimentin, CK and EMA were found to be positive while CD68 and desmin were negative and p53 was focally positive. With these findings, the patient was also diagnosed with differentiated papillary mesothelioma of the peritoneum. The final status of the patient was "concomitant endometrial carcinoma and peritoneal mesothelioma". No adjuvant therapy was needed for either malignancy, and close follow-up was decided on.

Conclusion

Diffuse ascites may be the first and only finding in peritoneal mesothelioma. This leads to a very difficult diagnosis and misinterpretation may take place if there is synchronous malignancy in the abdominal cavity. Aggressive surgery may help in some cases, as in ours. Endometrial carcinoma might not have been diagnosed if a hysterectomy had not been carried out, while there was no need to perform this procedure with the preoperative findings. Ascites due to mesothelioma may also mask synchronous ovarian carcinoma or peritoneal serous carcinoma.

Patients with such unclear preoperative findings and no predicted primary for tumor have to be surgically explored.

References

[1] Markaki S., Protopapas A., Milingos S., Lazaris D., Antsaklis A., and Michalas S.: "Primary malignant mesothelioma of the peritoneum: a clinical and immunohistochemical study". *Gynecol. Oncol.*, 2005, *96*, 860.

[2] Ordonez N.G.: "Mesothelioma with clear cell features: an ultrastructural and immunohistochemical study of 20 cases". *Hum. Pathol.*, 2005, *36*, 465.

[3] Hoekstra A.V., Riben M.W., Frumovitz M., Liu J., Ramirez P.T.: "Well-differentiated papillary mesothelioma of the peritoneum: a pathological analysis and review of the literature". *Gynecol. Oncol.*, 2005, *98*, 161.

[4] Butnor K.J., Sporn T.A., Hammar S.P., Roggli V.L.: "Well-differentiated papillary mesothelioma". *Am. J. Surg. Pathol.*, 2001, *25*, 1304.

[5] Haba T., Wakasa K., Sasaki M.: "Well-differentiated papillary mesothelioma in the pelvic cavity. A case report". *Acta Cytol.*, 2003, *47*, 88.

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