Myxoid variant of peritoneal epithelioid malignant mesothelioma. A case report

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SUMMARY

The myxoid variant of a diffuse malignant epithelioid mesothelioma is a rare tumor. To the best of our knowledge, only three cases of this type of mesothelioma involving the peritoneum have been reported in the literature to date. Although it is rare in the peritoneal cavity, it should be included in the differential diagnosis of the more common myxoid/mucinous abdominal lesions (e.g. mucinous carcinomas or pseudomyxoma peritonei), which can myxoid MM mimic. We report the case of a 60-year-old female with a myxoid variant of malignant peritoneal mesothelioma. Histologically, the tumor consisted of medium-sized to large epithelioid cells with a moderate to abundant amount of eosinophilic cytoplasm. Some of the tumor cells contained intracytoplasmic, optically clear vacuoles. The nuclei were irregular with coarse chromatin and some exhibited prominent nucleoli. Some of the cells were multinucleated. Mitotic figures were rare. Most of the tumor cells were located within an ample myxoid background. Immunohistochemically, the tumor cells showed a diffuse positivity for cytokeratin cocktail AE1/AE3, calretinin, D2-40, and cytokeratin 7. Vimentin, HBME-1 and WT-1 were only focally positive. Progesterone receptors showed positivity in rare tumor cells (up to 5%). Other markers examined, including cytokeratin 20, estrogen receptors, BerEP4, CEA, TTF-1, GCDFP-15, and CD15 were negative.

Keywords: malignant mesothelioma – myxoid variant – peritoneum

Myxoidní varianta epiteloidního maligního mezoteliomu peritonea. Popis případu.

SOUHRN

Myxoidní varianta difuzního epiteloidního maligního mezoteliomu je vzácná. Ke dnešnímu datu byly popsané pouze tři případy tohoto typu mezoteliomu, který postihoval peritoneum. Přestože jde o vzácný tumor v peritoneální dutině, měl by být zahrnutý do diferenciální diagnózy myxoidních / mucinózních břišních lézí, které myxoidní MM můžou imitovat. Uvádíme případ 60-ti leté pacientky s myxoidní variantou maligního mezoteliomu peritonea. Histologicky nádor sestával ze středně velkých až velkých epiteloidních buněk se středním až hojným množstvím eosinofilní cytoplasmy. Některé z buněk obsahovali intracytoplasmaticky opticky prázdné vakuoly. Jádra buněk byla nepravidelná s hrubým chromatinem, některá obsahovala prominentní jadérka. Některé z buněk byly vícejaderné. Mitózy byly patrné řídce. Většina buněk byla rozprostřená na myxoidním pozadí. Imunohistochemicky nádorové buňky vykazovali difuzní pozitivitu koktejlu cytokeratinů AE1/AE3, kalretininu, D2-40 a cytokeratinu 7. Vimentin, HBME- 1 a WT-1 byly pozitivní jen fokálně. Progesteronové receptory vykazovali pozitivitu v ojedinělých buňkách (do 5%). Ostatné vyšetřované markery jmenovitě cytokeratin 20, estrogenové receptory, BerEP4, CEA, TTF-1, GCD-FP-15 a CD15 byly negativní.

Klíčová slova: maligní mezoteliom – myxoidní varianta – peritoneum

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Malignant mesothelioma (MM) is a rare tumor that usually occurs in the pleura or peritoneum (1). On rare occasions, this tumor can be found in the tunica vaginalis of the paratesticular region, hernia and hydrocoele sacs, or in the pericardial cavity (2,3). The morphology of MM is very heterogeneous and various subtypes have been described, including one with prominent myxoid change. Myxoid MM is rare, however, and only 23 cases of this type of tumor has been reported to date, including one series of 19 cases and four single case reports (2,4-6). Most of the reported cases involved the pleural cavity (5), but one occurred in the pericardium (4), and another three in the peritoneum (4,6). The survival rate of patients with myxoid MM appears to be better than that of epitheloid MM in general (5). We have described an additional case of a primary peritoneal epitheloid MM with a prominent myxoid change, including its clinico-pathological and immunohistochemical features.

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CASE REPORT

A 60-year-old woman suffering from weight loss, abdominal pain and distension lasting for 4 months was referred to the Oncogynecological centre from the regional hospital. The serum CA 125 showed high levels (up to 154.2 kIU/l). A computerized tomography (CT) scan and an ultrasound revealed a left adnexal mass, a tumorous infiltration of the omentum (omental cake), and parietal carcinomatosis in the pelvis and on the diaphragm.

The adnexal mass was considered to be of potential primary origin and the patient was referred to open surgery (laparotomy), with no radiotherapy or chemotherapy beforehand. A macroscopic finding in the abdominal cavity confirmed the presence of ascites (5000 ml), omental cake and a tumor mass in the abdominal wall in the left lower quadrant (described on im-