

Platelets are associated with advanced-stage of ovary cancer

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Background: Platelets (PLTs) are highly reactive cellular effectors of hemostasis, immunity, and inflammation. Recent clinical observation and experimental evidence suggests that PLTs may promote cancer progression through diverse mechanisms, including protection of cancer cells from immune surveillance, negotiation of cancer-cell arrest in the microvasculature, and stimulation of angiogenesis. We investigated whether PLT counts (especially, thrombocytosis) were related to cancer stages and clinical outcomes in ovarian cancer. **Methods:** We analyzed clinical data on 538 patients with epithelial ovarian cancer diagnosed in CHA Bundang medical center from 2000 to 2013. They were tested associations between platelet counts and clinicopathological variables using Mann-Whitney test and Fisher's exact test. Thrombocytosis was defined as a platelet count of more than 450,000/mm². **Results:** The median PLT count in patients with thrombocytosis was 521,000/mm². Patients with advanced disease correlated with higher PLT count than those with stage I + II + III (median PLT counts 267,000 vs. 303,000/mm², $p=0.004$). Seven percent of the patients (36 of 538) had thrombocytosis at the time of initial diagnosis of epithelial ovarian cancer. Patients with thrombocytosis (19% in stage IV, 6% in stage III, 9% in stage II, 3% in stage I) were significantly more likely to have advanced-stage disease (odd ratio=5.069, 95% CI 2.482-10.351, $p<0.001$; using Fisher's exact test) and higher preoperative levels of median cancer antigen (CA) 125 than those with normal platelet counts (43.9 vs 600 ng/ml, $p<0.001$). **Conclusion:** Advanced-stage ovary cancers are associated with increased PLT counts. The potential clinical application of thrombocytosis for prognosis of clinical outcomes in ovary cancer patients needs further studies.

Male breast adenoid cystic carcinoma: Case Report

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Adenoid cystic carcinoma (ACC) of the breast is a rare subtype of breast cancer, and even rarer are the male cases. The 41-year-old healthy male patient was consulted due to cervical back pain for two months. Cervical spine CT scan showed osteolytic change with bony fragmentations in C3-C6 transverse process and vertebral body. It seems to be pathologic fracture related with tumorous conditions rather than trauma related. In bone scan, osteolytic bone lesion like multiple myeloma was found. But in serum and urine protein electrophoresis and immune fixation, there was no evidence of monoclonal gammopathy. In the bone marrow examination, hematopoietic cells almost replaced by neoplastic cells was showed. PET-CT scan showed hypermetabolic lesion in axial skeleton, lung and left axillary lymph nodes. The result of core biopsy in left level I axillary area was adenoid cystic carcinoma. After reviewing the image study and whole body physical examination, movable small nodular lesions were found in periareolar of left breast. In breast US, irregularly shaped solid lesion was observed in the left sub-areolar area. Pathologic result was the Adenoid cystic carcinoma same as auxiliary lymph node biopsy. Finally ACC of breast with multiple lung, bone metastases and bone marrow involvement was diagnosed. Male breast ACC could be neglected by patient himself and difficulty to diagnosis, it can be an aggressive metastasis for long time until diagnosis. This case showed extraordinary pattern of bone metastasis finding compare to other solid tumor.

