

中文題目：多處淋巴腫大併周邊血液芽細胞 — 惡性淋巴瘤抑或是攝護腺癌？

英文題目：Circulating blasts with multiple lymphadenopathy – lymphoid malignancy or prostate adenocarcinoma?

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Introduction:

Over the past decades, the incidence of prostate cancer in Taiwan keeps rising, and is ranked fifth among malignancy of Taiwan male population (with prostate cancer comes after colorectal, lung, liver and oropharyngeal cancer). Classical presentation of prostate cancer is asymptomatic, rarely with some nonspecific urinary symptoms. Bone pain is commonly complained in metastatic stage. In this report, we present a case of metastatic prostate adenocarcinoma with circulating blasts with multiple lymphadenopathy mimicking lymphoma.

Case presentation:

A 60-year-old man with hypertension first presented to our hospital due to progressive dyspnea on exertion for two weeks and significant body weight loss (20kg in 1 year). Associated symptoms included fatigue, change in stool consistency and intermittent stool with blood clot. Initial blood test showed pancytopenia (white blood cell count is 3,190/uL, hemoglobin is 6.6 g/dL, and platelet count is 57,000/uL, with reticulocyte account for 4.1 percent, 63.2 percent neutrophils, 25.9 percent lymphocytes, 7.8 percent monocytes, and 2.5 percent eosinophils).

Admission was arranged and blood transfusion was performed right away. Due to defecation with blood clot and severe anemia, esophagogastroduodenoscopy and colonoscopy were performed. Colon tubular adenoma and internal hemorrhoid were found. Abdominal computed tomography was also arranged and documented suspected lymphoma along paraaortic space, aortocaval space, left common, external and internal iliac regions, and presacral region with peripheral infiltration (**Figure 1**). Multiple bone sclerotic change (**Figure 2**). Also, peripheral blast cell (1%) was detected thereafter. Peripheral blood smear disclosed normocytic normochromotic RBCs with few immature WBCs (promyelocyte, myelocyte). Combined with his presentation, laboratory data and image result, lymphoid malignancy with bone marrow involvement is suspected. Therefore, we arranged bone marrow examination and inguinal lymph node excision biopsy. Bone marrow aspiration revealed dry tapping but pathology turned out to be metastatic adenocarcinoma of prostatic origin. Later, lymph node pathology report confirmed metastatic adenocarcinoma of prostatic origin. His Prostate-Specific Antigen also showed compatible results (PSA level is above 1500ng/ml and Free PSA is above 20 ng/ml). Further bone scan confirmed active bone lesions involving almost the whole axial skeletal architecture. Final, he was diagnosed with metastatic prostate cancer, stage IV, with multiple lymph node, bone and bone marrow metastasis.

Discussion:

B symptoms (fever, night sweat and body weight loss) and lymphadenopathy were common presentations for lymphoma. Bone marrow is the most common site of extranodal involvement in lymphoid malignancies. If bone marrow involvement happened, circulating blasts in peripheral blood could be noticed. However, non-hematopoietic malignancy with bone marrow metastasis is still need to be keep in mind even it's a rare phenomenon [1], which signifies advanced stage of disease and poor prognosis. Prostate, breast, lung and neuroblastoma confers the most common non-hematopoietic carcinomas. Once bone marrow metastasis is suspected, bone marrow biopsy should be done as soon as possible. Hence if in case of bone marrow metastasis of unknown origin, a workup including chest X-ray, serum LDH, serum ALP, serum prostate-specific antigen levels in men, and mammography in women should be performed. Several hypotheses had been postulated to explain the rarity of this presentation, including little bone marrow study was performed only in patient with peripheral blood count abnormality. Abundant vascularity, slow blood flow, and the interactions between the bone marrow stroma and tumor cells that lead to the release of growth factors [2] may explained how solid tumors metastasize to the bone marrow.

Conclusion:

Though being rare, bone marrow metastasis from prostate origin should be suspected in cases of every adult male. Once a diagnosis is reached, rapid and appropriate treatment should be administered.

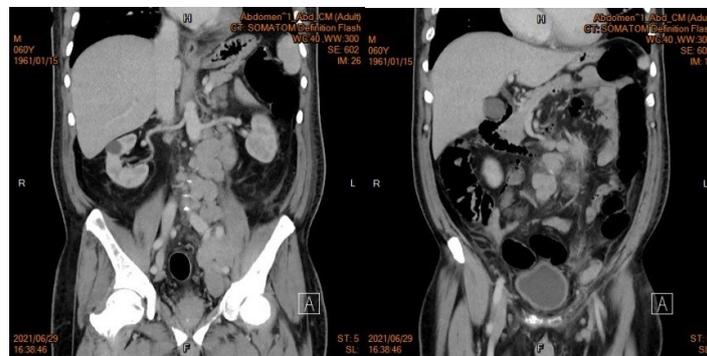


Figure 1



Figure 2

- [1] Bone marrow metastasis in nonhematologic malignancies: data from a cancer hospital. Chauhan K, Jain M, Grover S, Shukla P, Rusia U, Grover RK. *Clin Cancer Investig J.* 2016;5:103–109.
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