

Heparin-induced thrombocytopenia in a patient with colon cancer

Sir,

Heparin-induced thrombocytopenia (HIT) is an acquired thrombohemostatic disorder caused by antibodies to a complex of heparin and platelet factor 4 (PF4).^[1] The nature of this disorder includes thrombocytopenia with high risk for development of thromboses. Here, the author reports an interesting case study on HIT in a colon cancer patient. This is a consulting case on the problem of unexplained thrombocytopenia in a 52-year-old female cancerous patient. She was diagnosed to have colon cancer for 6 months, and got a standard surgical and chemotherapy course. At present, she still takes capecitabine treatment. The consulting problem in this case is on the unexplained persistent thrombocytopenia (ranging between 20,000 and 30,000/mL) that cannot be successfully corrected by repeated platelet transfusion. After getting consultation, this case was completely investigated for Complete Blood Count (CBC) and platelet assessment. The positive findings include thrombocytopenia from CBC (platelet = 28,300/ μ L, MPV 10.1 fL, PDW = 12.2 fL, PCT = 0.03%) and positive anti-heparin and anti-PF4 antibodies. This case was finally diagnosed to have HIT, and the suggestion to use a direct thrombin inhibitor was given to the physician in charge. The patient dramatically improved and returned normal platelet count within 1 week. Also, additional ultrasonography of the lower extremities was performed in the patient to screen for asymptomatic deep vein thrombosis, as recommended by the ACCP guidelines for patients with HIT. Generally, the cancerous patient is at increased risk for thrombosis, and heparin prophylaxis

is commonly used. In this case, after in-depth history taking, heparin prophylaxis usage could also be detected. Although it is rare (about 0.2% for low molecular weight heparin in medical patients treated for five or more consecutive days), it can induce HIT and can be the cause of unexplained thrombocytopenia.^[2] It is suggested that the HIT should be suspected in any cancerous patients with (a) unexplained thrombocytopenia with prothrombic and sometimes hemorrhagic diathesis presentation, (b) no abnormality of other blood cell series, (c) no response to platelet transfusion (however, HIT should ideally be considered before platelet transfusion is given as platelet transfusion is a relatively contraindicated in HIT) and (d) with history of using heparin exposure.

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