PRESENTATION OF CHRONIC MYELOID LEUKEMIA AS A BILATERAL COMPARTMENT SYNDROME: A Case Report

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Abstract:

A 75-year-old man with a recent diagnosis of Chronic Myeloid Leukaemia (CML) presented with Bilateral Upper Limb Compartment Syndrome. The Compartment syndrome was attributed to bleeding which was suspected to be caused by factor XIII deficiency. Although there have been cases of Acute Leukaemia resulting in Factor XIII deficiency, instances of Chronic Leukaemia leading to Factor XIII deficiency have been rarely reported.

In the last six decades, there have been only 9 documented cases of CML in the Chronic phase presenting as hematomas in deep soft-tissue, mediastinum, cerebellum, epidural, or subdural regions, including the present case report. Bleeding is not a common symptom of Chronic Myeloid Leukaemia (CML), but when it occurs it has been documented to be caused by the spread of leukemic cells, interferon-g (IFN-g) induced inhibitor of clotting factors or tyrosine kinase inhibitor (TKI) agents triggered platelet dysfunction. Based on the current knowledge, there are several bleeding disorders that cannot be identified through routine clotting screens (Prothrombin Time, APTT, Thrombin time, Fibrinogen levels and Platelet counts) and with inadequate patient history. These disorders typically involve problems with platelet quality, such as Von Willebrand disease, Factor XIII deficiency and PAI-1 deficiency.

In CML patients presenting with bleeding and normal coagulation profile, Factor XIII deficiency could be one of the causes. While dealing with patients with bleeding and normal Coagulation profiles, consideration should be given to sending further screening tests like Factor XIII levels and other coagulation factors.