

Bone Marrow Aspiration Study in Pancytopenia: Study for Diagnostic Efficacy from Central India

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ABSTRACT

Pancytopenia can be caused by a wide variety of etiologies that require evaluation of bone marrow. This is a cross sectional study carried out to identify the various findings in bone marrow aspiration in patients with pancytopenia on peripheral smear examination. Bone marrow aspiration was performed in 103 cases with pancytopenia over a period of 2 years. Bone marrow was hypercellular in 46.6% cases, normocellular in 28.2% cases, inconclusive in 14.5% cases and hypocellular in 10.7% cases. Bone marrow showed megaloblastoid picture in 34% cases, iron deficiency in 9.8% cases, combined iron deficiency and megaloblastoid picture in 8.8% cases, plasmacytosis in 9.8% cases, hypoplastic anemia in 4.9% cases, reactive changes in 2.9% cases, acute leukemia in 1.9% cases, chronic myeloid leukemia chronic phase in 2.9% cases, acute lymphoblastic leukemia in 2.9% cases, idiopathic thrombocytopenic purpura in 1.9% cases and non- hodgkin's lymphoma in 0.9% cases. Study was normal in 3.8% and inconclusive in 15.5% cases. Amongst the total cases 6.8% were below 10 years of age and a total of 46.7% were 30 years and below. Bone marrow aspiration was able to establish diagnosis in 80.7% cases. In conclusion, bone marrow aspiration can diagnose the etiological factors in majority of cases of pancytopenia.