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A CASE REPORT OF SEVERE THROMBOCYTOSIS

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ABSTRACT

Thrombocytosis is a condition in which there is an excessive number of platelets in the blood. A 10 months old baby, with a past history of wheeze associated Lower respiratory tract infection was admitted to the hospital with the complaints of cough and cold with fever for 4 days. Complete blood count showed marked thrombocytosis with increased WBC count. Peripheral smear study confirmed the same.

KEYWORDS: PLATELETS,NEUTROPHILS,INFECTION

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INTRODUCTION

Thrombocytosis is defined as the platelet count above the normal range i.e 4,50,000/cu mm(1).Thrombocytosis is classified as primary and secondary forms. Primary thrombocytosis refers to a persistent elevation of platelet count due to clonal thrombopoiesis such as chronic myeloproliferative or in some myelodysplastic disorders(2).Secondary thrombocytosis is due to a variety of underlying conditions such as acute infection, trauma, major surgical procedures or after severe physical exertion, thrombocytosis associated with malignancy, chronic infection, iron deficiency or chronic inflammatory diseases(3).

CASE REPORT

10 months old baby was admitted in our hospital with the complaints of cough and cold with low grade fever for 4 days. He also had difficulty in breathing and in taking oral feeds. He was treated for wheeze associated lower respiratory tract infection in our hospital 10 days back. There was no relevant family history and he was immunized up to the age and achieved developmental milestones. On examination child was irritable, febrile and tachypneic. Bilateral wheeze and crepitations was present. Suprasternal and intercostal retractions are also seen. No organomegaly and neurological deficit. CBC which was done with automated hematology analyser KX-21 showed,total WBC count of 22,900 cells/cu mm ,Platelet count of 9.11 lakhs /cu mm and Hemoglobin of 11.1gm/dl. Peripheral smear study, showed predominantly microcytic hypochromic RBC's with anisopoikilocytosis, WBC was increased in number, Neutrophils showed toxic changes with shift to left with many metamyelocytes and stab forms (Fig.1).Platelets was markedly increased(Fig.2).Manual platelet estimation was done with the peripheral smear (4) which correlated with the cell counter findings. Routine urine examination was normal and X-Ray showed pneumonic consolidation. Baby was treated with antibiotics and bronchodilators and CBC was repeated after a week .It showed a total count of 9,000 cells/cu mm and platelet count of 3.92 lakhs/cu mm.

DISCUSSION

Severe thrombocytosis is a rare condition where the platelet count is above 900,000/cu mm(5). Normal reference range of platelets in the local population has been derived in a few studies (6).Incidence of severe thrombocytosis in India is around 3.6% (7) of all cases of thrombocytosis and usually occurs in age less than two years (7) and so this case was presented for its rarity. In this case, Iron deficiency anemia with superadded infection might have been the cause for extreme thrombocytosis, so the baby was subsequently treated with iron formulations and antibiotics. Child was clinically stable after treatment and repeat hemogram showed a normal platelet count, which proves that thrombocytosis can be corrected if the underlying condition is treated.

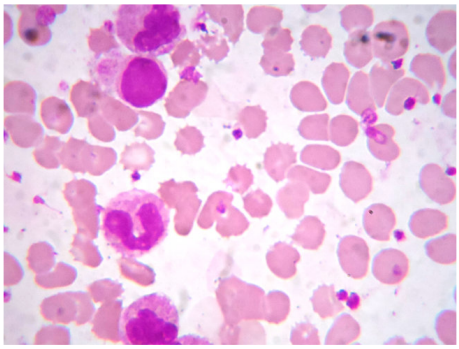

Figure 1
Peripheral smear(100x oil immersion) Neutrophils showing toxic changes with shift to left.

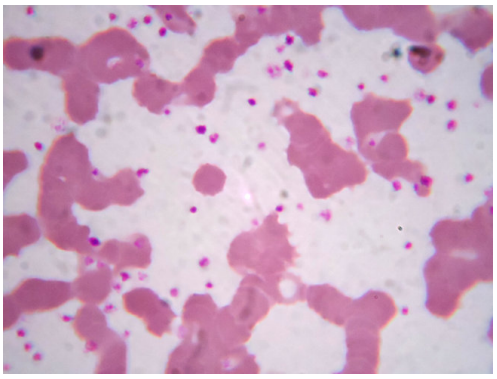

Figure 2
Peripheral smear (100x oil immersion) showing markedly increased Platelets

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