

# A Brief Communicaton On Pcv and Tipped Leukocyte- Thrombocyte Count!

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## I. INTRODUCTION:

Blood Dyscrasia are a common problem in the East. A major cause among these is anaemia is due to traumatic blood loss and menorrhagia. Palliative medicine has taken a new turn in the 21<sup>st</sup> century. With Regorafenib, an fms tryrosine kinase inhibitor and a recent Monoclonal Antibody (mAB) used in Prostate cancer, whether the same can be tried in non-Hodgkin's lymphoma remains uncertain.

However, the commonest cause of blood dyscrasia as studied in MGMCRI during the period of observation between 2017 and 2019 was infectious in etiology with Dengue and Scrub Typhus being the most common causes next to chronic kidney disease where Erythropoietin is low.

Packed Cell volume an index of Red Blood Cell deposition for a mass of blood cell volume collected in a test tube is an indicator of dehydration in these common causes of thrombocytopaenia. The lacuna in these conditions is that cases with normal leukocyte count among those infected with Scrub Typhus serology with IgM positivity whereas low leukocyte count is seen among Dengue patients noted to have a normal PCV in range between 42-47% despite dehydration. This being a Gaussian Distribution can be usually relaxed.

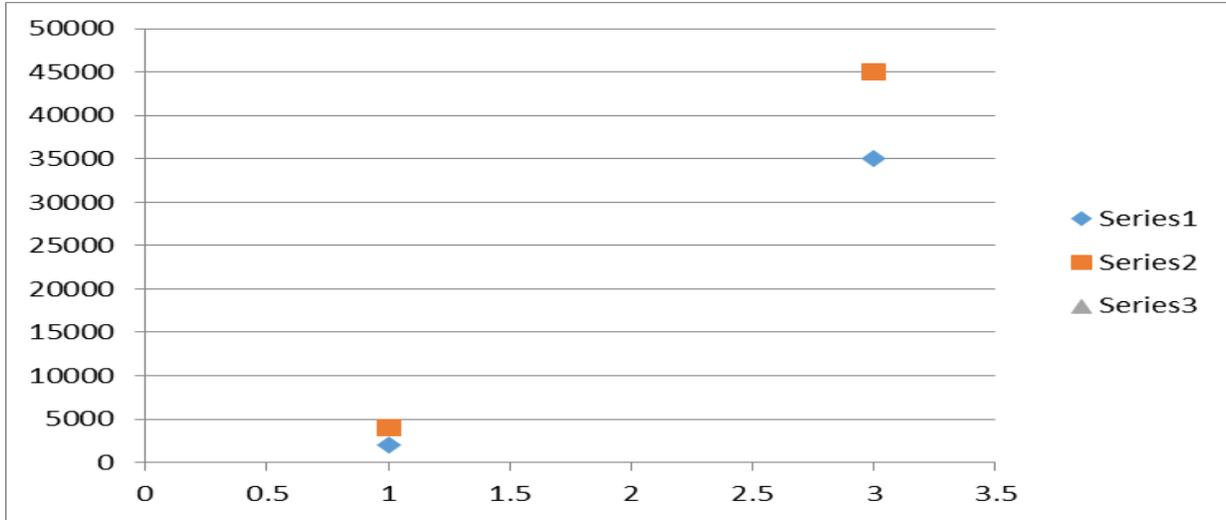
## II. METHODOLOGY

Patients with symptoms of intermittent fever, ecchymoses and bleeding from gums were observed in Casualty with current investigations of Leukocyte count, Packed cell volume, RBC count and platelet count. With administration of IV fluids 4L of NS per day over a two day period accentuation of symptomatology was monitored with an eye on the normalisation of leukocyte count and thrombocyte count. In this series of 19 patients a few with Dengue and Scrub Typhus had normal RBC count. The return to normalisation of leukocyte count was closely monitored with an eye on PCV also while IV fluids were administered according to routine. These patients while in ICU were under the umbrella of IV antibiotics for Gram positive coverage.

## II. RESEARCH

19 cases in this study were included to be Dengue and Scrub typhus. 14 cases of Dengue were observed for leukocyte values. Subsets were drawn for low and normal leukocyte count in relation to platelet counts. In the Scrub typhus offset 1 case had leukocytosis while 4 cases had normal leukocyte count.

In addition to 0.9% saline and platelet infusion whence required, Terifinamycin an amide-based tablet is of value in treatment of viral, mycoplasmal and Rickettsial infections.



Courtesy Scatter diagram excel – Dengue showing lower but faster improvement of platelet count whereas series 3 shows offset of early recovery in early diagnosis set. Series 2 shows (Scrub Typhus) treatment without IV fluids or platelet infusion.

RESULTS

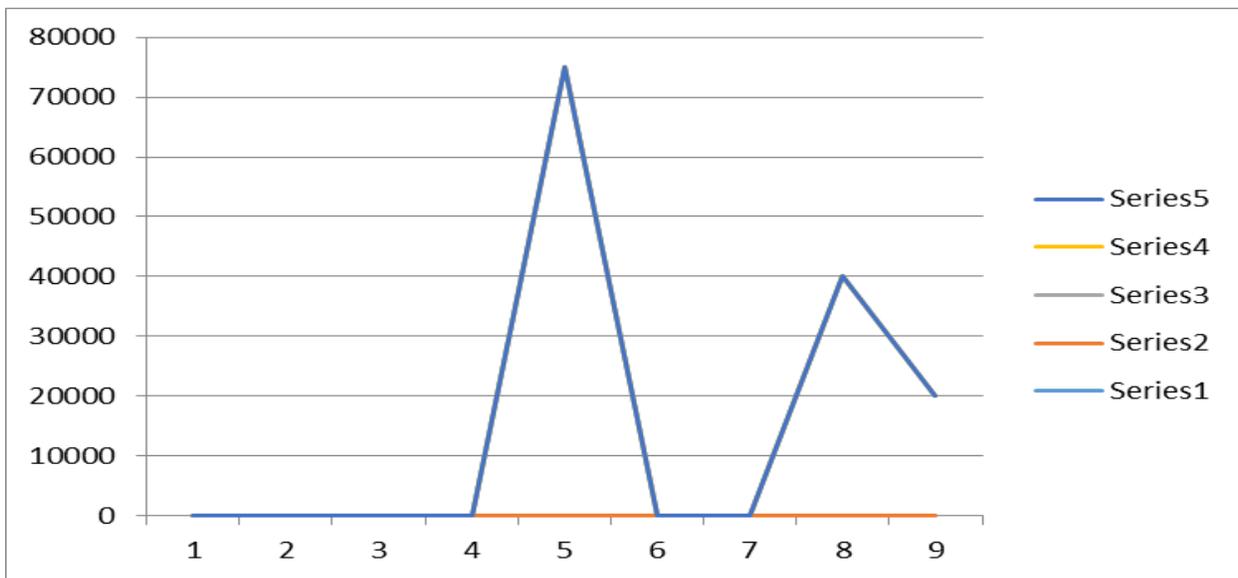


Fig:2 A greater or lower PCV or ESR at 1 hour both showing lower thrombocyte count showing increased or decreased ankyrin of RBC’s plays a vital role in promyelocyte accentuation of growth to platelets.

1. Over a two-day observation period, drop in PCV was in the range of 4%, in the normal leukocyte doughnut.  
 2. In the normal leukocyte picture cluster, the dehydration was not the parameter to offset platelets in dengue.

3. In the low leukocyte cluster, also a drop in thrombocyte relays that promyelocyte inhibition is the pathognomonic finding in Dengue.  
 4. Leukocytosis seen in “aleukemic leukemia” is often an encaboodle in milder Rickettsia or observed Staph snuffles in early diagnosis.