

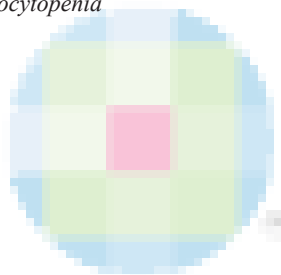
## Association of platelet count and serological markers of dengue infection- importance of NS1 antigen

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### Abstract

**Introduction:** Dengue is an acute viral infection with potential fatal complications. Specific antibody detection has been the mainstay of diagnosis which is prone for both false positive and false negative reactions. The newer parameter NS1 appears to be highly specific and reliable for diagnosis of dengue infection from the first day of fever. Platelet count is the only accessory test for diagnosis of dengue infection in the peripheral laboratories. Therefore, we tried to evaluate the association of platelet counts against NS1 and IgM/IgG in dengue infections. **Materials and Methods:** Serum samples from clinically suspected dengue cases were tested for NS1, IgM and IgG by immunochromatography-based test. Platelet counts were obtained for all positive cases and 150 dengue seronegative cases of fever that served as controls. Test results of dengue-specific parameters were compared against platelet counts. The proportions obtained were compared by Standard error of the difference between the proportions (SEP test). **Results:** Of 2104 samples tested, 320 were positive for one or more dengue parameters. Of the 320, 95 were positive for NS1 only, 161 showed IgM only while 9 showed IgG only. More than one marker was detected in the remaining 55 samples. Thrombocytopenia was more consistently associated whenever NS1 was detected compared to antibody detection ( $P$  value  $<0.001$ ). **Conclusions:** Inclusion of NS1 in the diagnosis of dengue increases the detection rate significantly. In cases of fever, thrombocytopenia is more consistently found in dengue positive rather than dengue negative subjects. It correlates well when NS1 and IgM are detected simultaneously.

**Key words:** Dengue, IgM, IgG, NS1, thrombocytopenia



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