



## ▼ POST GRADUATES ABSTRACTS

### PG -18 : MEAN PLATELET VOLUME AND PLATELET DISTRIBUTION WIDTH IN ACUTE ISCHEMIC STROKE

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**Background:** Stroke is one of the leading cause of death and long term disability. Records shows one life is lost in 10 seconds due to stroke and an incident of stroke occurs every ½ second worldwide. Platelet indices are potentially useful markers for the early diagnosis of thromboembolic diseases. Mean platelet volume (MPV) and platelet distribution width (PDW) can be used to predict impending ischemic stroke.

**Aims and objectives:** To study the significance of mean platelet volume and platelet distribution width in acute ischemic stroke. To compare the MPV and PDW in acute ischemic stroke and control. Assessment

of ROC to assess the cutoff point of MPV and PDW in predicting stroke.

**Methods:** This study was a hospital based case control study ,done from Jan 2016 to May 2017 at MGMC&RI in Pondicherry .The study was carried out among 40 patient with acute ischemic stroke compared with controls (patients without ischemic stroke) . In all patients MPV and PDW was compared between the two groups.

**Results:** There was statistical difference in MPV and PDW between the two groups(  $p < 0.001$  ).The MPV

in acute ischemic stroke patients was  $12.9 \pm 1.8$  fl was increased compared with controls who had  $8.1 \pm 1.8$  fl. The PDW in acute ischemic stroke was  $18.1 \pm 2.4$  % was increased compared with control who had  $11.7 \pm 1.7$  %. The area under curve for detecting the acute ischemic stroke based on MPV and PDW is

0.98 and 0.97 respectively with 95% CI (0.94-1.0) which was statistically significant.

**Conclusion:** In acute ischemic stroke patients, MPV and PDW was more compared with controls. Thus MPV and PDW can be used as laboratory marker for predicting acute ischemic stroke.