

## **EFFECT OF FINGOLIMOD ON PLATELET COUNT AMONG PATIENTS WITH MULTIPLE SCLEROSIS**

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**INTRODUCTION:** While many studies have previously focused on fingolimod's effect on immune cells, the effect it has on circulating and local CNS platelets has not yet been investigated.

**OBJECTIVES:** This study will elucidate what effects fingolimod treatment has on MS patients' plasma platelet levels. In addition, it will propose possible reasoning for these effects and suggest further investigation into this topic.

**METHODS:** This prospective cohort study used patients from the Isfahan Multiple Sclerosis Society (IMSS) to produce a subject pool of 80 patients, including 14 patients who ceased fingolimod use due to complications. The patients had their blood analyzed to determine platelet levels both one month prior to fingolimod treatment and one month after fingolimod treatment had been started.

**RESULTS:** After one month of fingolimod treatment, our results showed a statistically significant decrease in platelet counts in the entire cohort and in male and female subgroups as well (P.05). These results were determined using the 66 patients remaining after the observational period.

**CONCLUSION:** MS patients taking oral fingolimod treatment may be at risk for side effects caused by low platelet levels. This may not be a factor for patients with higher or normal platelet levels. However, a patient with naturally low platelet levels may experience a drop below the normal level and be at risk for excessive bleeding. In addition to these possible harmful side effects, the decreased platelet population may pose positive effects for MS patients.