

The Role of Aspirin in Thrombotic Thrombocytopenic Purpura: A Randomized Control Trial

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Objective: To assess the safety and efficacy of aspirin in acute Thrombotic Thrombocytopenic Purpura (TTP) and to evaluate it as a maintenance therapy.

Design: Randomized controlled trial.

Setting: Hematology/Oncology Department, Salmaniya Medical Complex (SMC), Kingdom of Bahrain.

Method: Nine patients with TTP admitted between August 2003 to December 2005 were included in the study. Seven were females (77.8%) and one was pregnant. Five Patients were randomized to receive the standard therapy with aspirin (group I) and four (group II/control) received the standard therapy only (plasma exchange, one single plasma volume daily using fresh frozen plasma from healthy donors and Methylprednisolone 1 gram intravenously once daily for three days). Safety and efficacy of aspirin were assessed during the acute phase (4 weeks) and as maintenance for one year.

Result: Statistically significant reduction in the number of plasma exchange sessions were noted in the aspirin group ($p = 0.0315$). Other parameters such as days of hospitalization, red blood cells transfusion were lower in the aspirin group compared to non aspirin group. No cases of mortality or morbidity were observed in patients receiving aspirin. Two patients (50%) developed deep vein thrombosis (DVT) in the control group and one of them eventually died (25%). Though these were statistically insignificant, possibly due to the small number of patients, it would suggest the efficacy of aspirin in TTP.

Conclusion: The study showed a significant reduction in the number of plasma exchange sessions in the aspirin group and probable advantages. Accordingly, we recommend a multicenter RCTs to address the role of aspirin in the management of TTP patients.

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