

Impact of Fasting on INR In Ramadan on Muslim Population Taking Warfarin

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ABSTRACT

Background: Warfarin is one of the most extensively used anticoagulant globally. The mechanism of anticoagulation of warfarin is influenced by many factors like diet and underlying illness but fasting has variable results.

Objective: To assess the impact of fasting on INR of the patients who have been taking warfarin, in the month of Ramadan.

Methods: We conducted a retrospective observational study on 30 patients who were on warfarin for atrial fibrillation and prosthetic valve replacement. INR readings were recorded before, during and after Ramadan. INR samples were compared using McNemar Bowker test.

Results: Statistically significant differences observed among INR levels for the comparison group before vs during Ramadan ($p = 0.024$) and after vs during Ramadan ($p = 0.027$) but no significant difference observed for before vs after Ramadan. INR Supratherapeutic levels inclined from 26.7% to 70% from before Ramadan to during Ramadan and declined from 70% to 30% from during Ramadan to after Ramadan. TTR (time in therapeutic range) remained same before and after Ramadan i.e. 56.7% but declined to 23.3% during Ramadan. Whereas there is significant decline in sub therapeutic levels of INR in the month of Ramadan by 6.7% as compared to pre Ramadan 16.7% and post Ramadan 13.3% respectively. Out of 30 only 3 patients bleed resulting from supratherapeutic levels during Ramadan whereas no thrombotic events were reported.

Conclusion: Fasting has a significant impact on patients who have achieved TTR before Ramadan as fasting markedly increased INR in the month of Ramadan.