

NEGLIGIBLE ABSORPTION OF METOPROLOL DURING THE EARLY PHASE AFTER CABG.

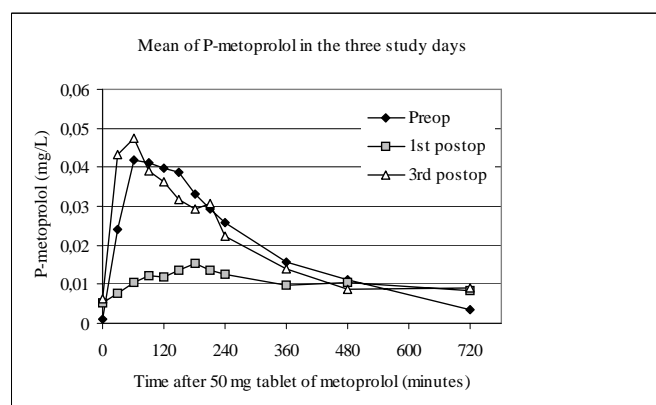
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Objective: Atrial fibrillation (AF) is the most common postoperative cardiac dysrhythmia and a source of considerable morbidity, mortality and prolonged hospital stays in patients with coronary artery bypass surgery (CABG). The efficacy of beta-adrenergic blockers has been modest, though administered to all patients, the incidence of postoperative AF remains high (8.7–19 %).¹ We hypothesised that the unimpressive efficacy of β -blockers may be a consequence of their poor absorption from the gastrointestinal tract during the early postoperative phase.

Methods: In the present trial 12 male patients, aged 45-64 years, scheduled for CABG surgery, were administered with the initial 50 mg metoprolol tartrate tablet by mouth on the morning of the preoperative day and thereafter at every 12 hours. Regular blood samples were collected up to 12 hours after first administration on the preoperative as well as first and third postoperative days.

Results: Both the rate ($p = 0.004$) and extent ($p = 0.039$) of metoprolol absorption was significantly less on the first postoperative day compared to that on the preoperative day, but it returned to the preoperative values on the third postoperative day (Figure). One patient with one of the lowest rates and extents of metoprolol absorption developed AF.

Conclusion: This study indicates that the absorption of metoprolol is negligible from tablets during the early phase after CABG, and therefore intravenous metoprolol should be used during the first days after cardiac surgery.



Reference: 1. Omorphos S, Hanif M, Dunning J. Are prophylactic β -blockers of benefit in reducing the incidence of AF following coronary bypass surgery? *Interact CardioVasc Thorac Surg.* 2004; 3: 641-6.