Comment: Ondansetron: Timing and dosage

Sir,

We read with interest an article titled "comparative electrocardiographic effects of intravenous ondansetron and granisetron in patients undergoing surgery for carcinoma breast: A prospective single-blind randomized trial."[1]

In the article the authors divided patient post-surgery into 2 groups randomly. One of them received ondansetron 8 mg and the other granisteron 1 mg

intravenously. We feel the study was flawed in two ways:

1. The timing of anti-emetics: Most of the literature would suggest giving anti-emetics either at the start of surgery[2] or 30 min before the end of surgery for prevention of post-operative nausea and vomiting (PONV).[3] After PONV has started in recovery period even doses of 1 mg intravenously is shown to be as beneficial as 8 mg intravenously with no difference in either patient outcome or satisfaction.[4] So giving all patient ondansetron or granisetron in recovery only to see for QT prolongation seems to be flawed. It is not mentioned in the article about whether the patient felt nauseated or vomited in the recovery. Studies have shown that if a postoperative patient vomits after getting 4 mg of prophylactic ondansetron in the recovery room, an additional 4 mg treatment dose of ondansetron is not better than a placebo to control the vomiting,[5] so giving a standard dose to all patients may distort the study. Zofran (trade name) which is manufactured by GlaxoSmithKline recommends in its website that the dose for PONV should be 4 mg intravenously. The authors have also not specified if the anti-emetics were given for prophylaxis or treatment.
2. The Food and Drug Administration (FDA) in 2011 has issued a statement stating that by using ondansetron, QT prolongation occurs in a dose-dependent manner.[6] So, in view of this recommendation by FDA, which is accepted and followed worldwide, using ondansteron to demonstrate QT prolongation is unethical in our view as it is an accepted complication especially when generalizing 8 mg as a standard dose irrespective of weight.

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