ORAL CLONIDINE DECREASES BLEEDING IN ENDOSCOPIC SINUS SURGERY

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INTRODUCTION: Serious complications usually result from impaired visibility due to excessive bleeding during endoscopic sinus surgery (ESS) [1]. The aim of this study was to assess the effect of premedication of clonidine as a central alpha agonist and an antihypertensive drug in producing a bloodless surgical field in ESS and also to evaluate bleeding volume.

METHODS: After approval of the institutional ethics committee and obtain informed consent this clinical trial was performed on 113 adult patients scheduled for elective ESS under general anesthesia. Fifty-two patients received clonidine (5 mic.g/ kg) 90 min prior to arrival at the operating theater (clonidine group) and sixty-one received placebo (control group). The hemodynamic endpoint of the anesthetic management was to maintain the mean arterial pressure at 70 mmHg in order to produce a bloodless surgical field. The desired control of the cardiovascular system was obtained using halothane (inspired concentration increments of 0.5 vol% up to 1.5 vol%), fentanyl (2mic.g/ kg, iv up to 4mic.g/kg) and hydralazine (100 mic.g / kg iv up to 40 mg) as needed. Intraoperative bleeding was assessed on a six – point scale from 0 = no bleeding to 5 = severe bleeding. In addition to above scoring, aspirated bleeding volume was also measured via a scaled bottle at the end of operation. Data were analyzed using chi-square, fisher's exact and student t-test.

RESULTS: There was less bleeding volume in the clonidine group than in the placebo group (144 ± 75 vs. 225 ± 72 ml, $P < 0.05$). Frequency of score 3 and 4 of bleeding (troublesome with repeated suction) was lower in the clonidine group (12% vs. 35%, $P < 0.05$). Fentanyl requirement was significantly lower in clonidine group (112 ± 18 vs. 142 ± 21 mic.g, $P < 0.05$).

DISCUSSION: In the previous two studies, premedication with oral clonidine significantly had been reduced bleeding in middle ear microsurgery [2,3]. In present study premedication with oral clonidine reduced bleeding in ESS and also diminished fentanyl and hydralazine requirement for controlled hypotension.

REFERENCES:

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