

## A randomized clinical trial study about using oral clonidine premedication in patients with jaw skeletal discrepancy undergoing bimaxillary orthognathic surgery about hemodynamic status and bleeding

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**Introduction:** Controlled hypotension during surgical procedure is a way to decrease blood pressure and subsequently, improve field of operation. Clonidine is an antihypertensive agent used for induced hypotension. Correction of maxillomandibular discrepancies may need to perform osteotomy on both jaws in many cases which is associated with significant blood loss.

**Material and Methods:** 30 participants candidate to double-jaw orthognathic surgery were classified into two groups with equal number. In one group, 300microgram oral clonidine premedication, 90 minutes before operation and in the other group a placebo with the same condition as group 1 were administered. Mean arterial pressure (MAP) and heart rate in 10 minutes interval, operation time, blood loss and surgeon's satisfaction were measured.

**Results:** 10 men and 5 women with the mean age of  $22.9 \pm 2.9$  in study group and 13 men and 2 women with the mean age of  $22.1 \pm 2.1$  in control group were evaluated. The MAP was significantly lower in clonidine group ( $P$  value  $<0.001$ ). Intra-operative bleeding was  $508.67 \pm 46.2$  milliliter (mL) in placebo group and  $287.33 \pm 72.06$  mL in clonidine group and the difference was statistically significant ( $P < 0.05$ ). Significant differences were observed in operation time ( $P < 0.05$ ) and surgeon's satisfaction ( $P < 0.001$ ).

**Conclusion:** The authors of this study suggest clonidine premedication in bimaxillary orthognathic surgery. Hemodynamic stability, bleeding control, decreasing the operation time and enhancing the surgical results are advantages of this method.

### Biography

Amir Ali Jalili Manesh is a student of pharmacology in Shahid Beheshti University, based in Tehran. His interest in drug efficacy and side effects made him to investigate in purpose of improving health care system. He intends to put his academic knowledge into practice and turn theory to practical knowledge. He has interest in clinical pharmacy and pharmaco therapeutics and his ultimate goal is to work with doctors to ensure the optimal patient care. One of the goals of him is to cooperate with international congresses on pharmacology for drug discovery and development.

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