

OP2 TREATMENT OF BORDERLINE CLASS III MALOCCLUSION: SURGERY VERSUS ORTHODONTICS
Abdolreza Jamilian, Sara Eslami, Department of Orthodontics, Tehran Dental Branch, center of craniofacial research, Islamic Azad University, Tehran, Iran

AIMS: One of the most controversial issues in treatment planning of Class III malocclusion patients is the choice between orthodontic camouflage or orthognathic surgery. The aim of this study was to delineate diagnostic measures in borderline Class III cases for choosing an appropriate treatment modality and also to compare the treatment effects between them.

MATERIALS AND METHOD: The pre-treatment lateral cephalograms of 42 patients exhibiting moderate skeletal Class III were analyzed. The inclusion criteria were ANB of 0 to -4 degrees and overjet of -1 to -4 mm. The camouflage group comprised 20 patients and the surgery group 22 patients. The camouflage group was corrected by flaring of the upper incisors and retraction of the lower incisors and the surgical group was corrected by setback of the mandible. A Mann-Whitney *U* test was used to compare the variables between the two groups. Stepwise discriminant analysis was applied to identify the dentoskeletal variables that best separate the groups.

RESULTS: Holdaway H angle was identified by stepwise discriminant analysis as the only variable to differentiate between patients suitable for orthodontic camouflage or surgical treatment. Based on this model 88.1 per cent of the patients were correctly classified. Two patients in the camouflage group ($n = 20$) and three in the surgical group ($n = 22$) were misclassified.

CONCLUSION: Holdaway angle can be used as a critical diagnostic parameter for determining the treatment modality in Class III borderline cases.