



**A COMPARATIVE STUDY OF TWO LIP SPLITTING  
APPROACHES: MCGREGOR INCISION AND STEPLADDER Z  
PLASTY**

**By**

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## **ABSTRACT**

**BACKGROUND AND OBJECTIVES:** The purpose of this study is to compare the functional and aesthetic results of two lip splitting approaches – McGregor incision and stepladder z plasty in patients for surgical resection of primary OSCC.

**METHODS:** Prospective study involving 24 patients who were subjected to modified radical neck dissection for primary oral squamous cell carcinoma at Department of Oral and maxillofacial surgery, SDM Craniofacial surgery and Research Centre, Dharwad from November 2018 to November 2020 were included in the study. Patients between the age group of 20 to 60 years with biopsy proven OSCC, indicated for resection of primary lesion and neck dissection were included. Patients with primary radiotherapy and neoadjuvant chemotherapy, history of keloid/hypertrophic scar and existing defect in mandibular anterior region were excluded from the study. Predictor variables were drawn from demographic characteristics (age and gender), primary site, extent of the primary lesion. Patients were divided into two groups randomly with group I approach of McGregor lip splitting incision and group II approach of step ladder Z plasty, with subjective and objective assessment.

**RESULTS:** The results obtained from the questionnaire and data derived from the clinical assessment were tabulated and analysed using Mann-Whitney U test, based on the type of lip splitting incision. On overall comparison of the oral incontinence between the two groups, there was no statistically significant

results. But the McGregor group showed better outcome with respect to chewing food, swallowing solids and liquids. Z plasty group has better outcome with respect to lesser degree of drooling and cosmesis. There was no difference between the speech efficiency between the two groups. Subjective assessment of the appearance of lips and face was better in Z plasty group. Subjective assessment of Inversion and eversion were better in McGregor group. Cosmesis was assessed objectively by Stony Brook Scar Evaluation Scale (SBSES). Group 1 had a mean score of 2.92 out of 5 and group II had a mean score of 4.08 out of 5. Hence overall cosmesis was better in z plasty group.

**CONCLUSION:** The Z plasty was found superior option when it comes to cosmesis due to its geometric nature which allows accurate approximation. McGregor provided better functional outcome in terms of lip movement and oral incontinence.

**KEYWORDS:** McGregor incision; Stepladder Z plasty; Scar assessment.