

Outcome of Titanium Reconstruction Plate as Immediate reconstructive option in Segmental mandibular defects during management of Head and neck squamous cell carcinoma



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BACKGROUND & AIMS

In the management of head and neck squamous cell carcinoma (HNSCC), immediate reconstruction of mandible with bone free flap is the gold standard but it's not feasible in all cases due to the unavailability of the expertise and other factors like inability to tolerate long duration surgery and expected poor prognosis.

Commonly, immediate reconstruction with only titanium reconstruction (recon) plate is not considered due to fear of complications with post operative radiotherapy.

Aim: A retrospective study was conducted to check the outcome of titanium recon plate in immediate reconstruction and also to review the complication rates.

Legends:

Fig (a): Preoperative

Fig (b): Intraoperative

Fig (c): Postoperative Occlusion

Fig (d): Postoperative X-ray

METHODS

Patients with HNSCC and reconstructed with titanium recon plate for segmental mandibular defects between Jan 2015 and Jan 2020 were included. The data was collected for the defined parameters like demographic details, type of bone defect, post operative radiotherapy, complications, etc.



RESULTS

A total of 20 patients were included with mean age of 49.3 year and male to female ratio of 9:1.

Postop radiotherapy was given to majority (n=16, 80%) of patients. Pectoralis major myocutaneous flap (55%) was most commonly used for soft tissue reconstruction.

Complications related to plate occurred in 6 (30%) patients.

Majority of plate exposure was seen in ATT type (Hashikawa's CAT classification). There was mean follow up of 20.6 months.

Complications	Number
Plate exposure	4
Plate Fracture	1
Plate Infection	1
Total	6

CONCLUSIONS

Immediate reconstruction with titanium recon plate is a viable option which provides proper occlusion and function to the patient.

The complication rate is low and proper patient selection is important.

References

- Spencer KR, Sizeland A, Taylor GI et al. The use of titanium mandibular reconstruction plates in patients with oral cancer. *Int J Oral Maxillofac Surg.* 1999;28(4):288-90.
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