

DERMATOLOGICAL SURGERY

RECONSTRUCTION OF LOWER EYELID DEFECTS WITH MODIFIED HORIZONTAL V-Y ADVANCEMENT FLAP

Mehdi Shiri⁽¹⁾ - Javad Rahmati⁽²⁾ - Zahra Shiri⁽³⁾ - Saeedeh Shiri⁽⁴⁾ - Hadi Shiri⁽⁵⁾ - Farideh Bahrami⁽⁶⁾ - Behrouz Shiri⁽¹⁾ - Ghazaleh Ibrahimy⁽⁵⁾ - Mohammad Bahrami⁽¹⁾ - Mahmmud Farhadi⁽¹⁾

Diar Pharma Institute For Drug&device Research, Dermatosurgery, Tehran, Iran (islamic Republic Of)⁽¹⁾ - Tehran University Of Medical Sciences, Reconstructive And Plastic Surgery, Tehran, Iran (islamic Republic Of)⁽²⁾ - Diar Pharma Institute For Drug&device Research, Bionovels, Tehran, Iran (islamic Republic Of)⁽³⁾ - Razi University, Genetics&plant Breeding, Kermanshah, Iran (islamic Republic Of)⁽⁴⁾ - Diar Pharma Institute For Drug&device Research, Bioinformatics, Tehran, Iran (islamic Republic Of)⁽⁵⁾ - Diar Pharma Institute For Drug&device Research, Reconstructive And Plastic Surgery, Tehran, Iran (islamic Republic Of)⁽⁶⁾

Background: Lower eyelid malignancies, specifically basal cell carcinomas (BCC) are not uncommon. Excision of such lesions creates reconstructive challenges due to fewer surgical options and compromises in the dynamic expressivity and facial aesthetic appearances. Direct closure is often restricted and it increases the incidence of ectropion if the lesion is more than 0.5 cm.

Objectives: This clinical study aims to present a novel reconstructive technique and to report the authors' experiences of full-thickness lower eyelid defects after tumor resection.

Patients and Methods: 60 cases, 35 men and 25 women, ranged from 45 to 73 years underwent surgical resection of lower eyelid tumors between May 2014 and December 2015. On initial histology, 40 of the patients were affected from nodular BCC, 10 from pigmented BCC, 6 from micronodular BCC, 3 cases of BCC Morpheic variant, and one from partially excised Squamous Cell Carcinoma (SCC). The average diameter of the defects were 1.5 cm and immediately repaired by an island pedicle flap (V-Y advancement flap) with high height-to-width ratio horizontally shaped from beneath the lateral canthus to the medial lower lid defect. The mean procedure was 30 minutes and the patients followed for 18 months on average.

Results: Advancement of lower eyelid subunit by means of a relatively long horizontal V-Y flap was performed without post-operative complications, the development of ectropion, and nearly unremarkable scar on the follow-up period. The aesthetic results were judged



excellent by both the patients and the blinded panel of independent dermatosurgeons. No recurrences were reported.

Discussion: In this study, the authors reported a modified technique of the horizontal V-Y advancement flap as a simple and most reliable alternative to repair moderate-size lower eyelid defects with satisfactory functional and aesthetic results in the long term.

