

Multiple Limberg flap for face in Gorlin syndrome

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Abstract: Rhomboid (limberg) flap is the most versatile and easiest flap which can be used anywhere in the body. The aim of this paper is to prove the versatility of this flap by presenting a case of multiple limberg on the face for multiple BCC following wide local excisions.

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I. Introduction

The limberg flap can be used to cover defects anywhere in the body. It is a random pattern flap that can be raised from any corner of the rhomboid. In this paper, we demonstrate its versatility by performing multiple limberg flaps on the face. The skin elasticity further aided the comfortable closure of defects especially in elderly patients.

Professor AA Limberg of Leningrad in 1928 first demonstrated Limberg flap. It is basically a parallelogram with two angles of 120° and two angles of 60°. All sides of the rhomboid are of equal length. As many as four flaps can be raised from a rhomboid. The technique of its elevation is simple. The elevated flap requires sufficient subcutaneous fat, and dissection must be carried past its base to prevent an elevated bump when it is transposed. The defects are filled with tissue of the same thickness, colour and good vascularity.

II. Materials and Methods

60-year-old female presented with multiple lesions over the face which was biopsy proven to be Basal cell carcinoma. All the lesions were removed by wide local excision with a clearance margin of 2 mm followed by limberg flap for cover. All the post excision raw areas were comfortably covered with limberg flaps with no adjacent skin pulling. The laxity of her aging skin further aided to the above benefit.





III. Discussion

Gorlin Syndrome is an autosomal dominant disorder with an estimated birth incidence of 1 in 19,000 individuals. The development of BCCs is one of the most problematic features of this disorder. The initial site of appearance of BCCs is most frequently the face and nape of the neck. The sites frequently involved are the face, back, and chest and they are rarely found below waist. The median age of onset is roughly 25 years but they may appear as early as two years of age or as late as 65 years of age. BCCs can vary in number from only some to thousands. There is a significant tendency for proliferation between puberty and 35 years. BCCs in this syndrome behave in the same manner as sporadic BCCs and rarely metastasize. The histology of the BCC is also similar to that of sporadic BCCs and consists of nests and islands or sheets of large, deeply stained nuclei with indistinct cell membranes. A diagnosis of Gorlin syndrome can be made when the patient has two major criteria or one major criteria and two minor criteria. Our patient satisfied two major criterias- 1. She presented with multiple BCC. 2. A first degree relative with nevoid basal cell carcinoma syndrome.

Although BCCs are usually slow growing and rarely metastasize, local destruction, and disfigurement may occur if left untreated or if incompletely removed. BCC requires a wide local excision with a margin of 2mm -5mm and depth upto the subcutaneous tissue for clearance. In the face a graft or a flap is frequently required to prevent disfigurement caused by direct closure. Special attention must be paid to the location of the BCC on the face as there are many areas of functional and cosmetic importance for example the periorcular, perioral, and perinasal areas.

A limberg flap is a versatile flap. It is a random pattern flap. Flaps can be raised from any side of the rhomboid facilitating in assessment of the cosmetic units of the face and preventing any distortion or disfigurement to it. The laxity of the ageing skin was another advantage.

Our patient underwent wide local excision of 2 mm marginal clearance for 5 lesions on the face followed by a limberg flap cover. There was complete laxity in the flap with no disfigurement and very minimal scarring in the post-operative period.

IV. Result

All the limberg flaps survived excellently due to its wide base and provided excellent colour and skin match with very minimal scarring.

V. Conclusion

Limberg flap is not only adroit enough but also when aided with lax skin, can be used in variable numbers to provide adequate cover without much pull in the surrounding surface (skin, aesthetic unit).



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