CASE REPORT

Keystone Flap for Large Posterior Neck Defect

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Abstract This article describes a method using local keystone flap to reconstruct posterior neck defect. This technique is easy and quick compared with the other techniques.

Keywords Keystone flap · Posterior neck defect · Reconstruction

Large defects of the posterior neck can be reconstructed by several methods such as lower island trapezius myocutaneous flaps [1, 2], scapular fasciocutaneous flaps [2], bilobed fasciocutaneous flaps [3], and free flaps [4]. This article describes a method using local keystone flap to reconstruct a large posterior neck defect. This technique is easy and quick compared with the other techniques.

Case Report

A 22-year-old female presented at the ENT department of B.P. Koirala Memorial Cancer Hospital of Nepal with a hemangiosarcoma in her left posterior neck. The tumor was 11 cm×11 cm and the defect after extended excision was 12 cm×12 cm. A key stone flap whose width was equal to the diameter of the defect was designed [5, 6]. Incisions were made along the border of the keystone flap to the surface of

the muscle and then the border of the flap was undermined (Fig. 1). The keystone flap was advanced and sutured layer by layer with 2-0 absorbable ligatures. After two drain tubes were placed, the donor site was closed by the advancement of the nearby regions. The flap survived and the result was satisfactory (Fig. 2).

Discussion

The keystone flap which is a couple of combined V-Y advancement flaps indeed was first described by Felix C. Behan in 2003 [7]. Keystone flaps are based on the random perforating vessels which are abundant in the regions at the surface of trapezius. Doppler is not necessary before the surgery. There are several advantages of keystone flap for posterior neck defects such as no damage to the donor site, esthetic result, and easy and rapid to perform. The precaution in using keystone flap for posterior neck defects is that the neck of the patient should be kept rotated and lean back for the first few days to decrease the tension on the flap for its survival.

Fig. 1 Incisions made along the border of the keystone flap

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Fig. 2 Satisfactory result of keystone flap

Conversely, if the patient rotates his neck right and lowers his head, it will put the flap in danger.

Compliance with Ethical Standards

Conflict of Interest The author declares that there are no competing interests.

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