

• 临床研究 •

# V-Y-S 旋转皮瓣修复头皮缺损

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**【摘要】** 目的: 报告 V-Y-S 旋转皮瓣修复头皮缺损的临床结果。方法: 应用 V-Y-S 旋转皮瓣技术修复 5 例头皮缺损, 其中, 男 4 例, 女 1 例; 年龄 26~52 岁, 平均 32 岁。缺损范围: 3 cm×3.5 cm~4 cm×5 cm。1 例用单侧皮瓣修复, 4 例用双侧皮瓣修复。结果: 所有的缺损均修复成功, 皮瓣全部成活, 术后随访 10~42 个月(平均 28 个月), 修复后的外形满意, 皮瓣上头发生长正常, 局部没有瘢痕形成, 没有出现与切口有关的并发症。结论: 用 V-Y-S 旋转皮瓣修复头皮缺损, 不需行游离植皮, 操作简单, 手术时间短, 成功率高。

**【关键词】** 头皮; 修补手术, 外科; 创伤和损伤; 皮肤移植

**Repair of scalp defect using V-Y-S rotation flap** ZHANG Gong-lin\*, ZHANG Ming, JING Hao, GUO Ao, LING Ai-jun, CAI Guo-rong. \*Orthopaedics Hospital of Wenling City, Wenling 317500, Zhejiang, China

**ABSTRACT Objective:** To report the clinical results of scalp defect using V-Y-S rotation flap. **Methods:** From March 2003 to October 2005, 5 cases scalp defect (4 male, 1 female) were reconstructed with the technique. The age ranged from 26 to 52 years (mean 32 years). The scalp defect ranged from 3 cm×3.5 cm to 4 cm×5 cm. Four cases were reconstructed with bilateral flap and one case was reconstructed with unilateral flaps. **Results:** All patients were followed-up from 10 to 42 months (mean, 28 months). All the flaps survived completely and showed good hair growth and had satisfactory clinical results. **conclusion:** Repair of scalp defect using V-Y-S rotation flap technique is simple with no need for a skin graft and can be performed quickly, there is minimal morbidity and the outcome is highly successful.

**Key words** Scalp; Revision, surgical; Wounds and injuries; Skin transplantation

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头皮缺损多见于创伤、肿瘤的切除, 烧伤或感染等, 由于头皮为生发结构, 无类似的组织可替代, 因而, 当缺损难以直接愈合时, 比身体其他部位的缺损更难修复<sup>[1]</sup>。2003 年 3 月至 2005 年 10 月, 应用 Demir 等<sup>[2]</sup>介绍的 V-Y-S 皮瓣旋转方法治疗, 取得满意效果, 现报告如下。

## 1 临床资料

本组 5 例, 男 4 例, 女 1 例; 年龄 26~52 岁, 平均 32 岁。

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均为全厚头皮缺损, 深度达骨面。头皮缺损原因: 皮肤癌切除 1 例, 头皮烧伤性坏死 1 例, 创伤性缺损 3 例。头皮缺损范围: 3 cm×3.5 cm~4 cm×5 cm。缺损部位: 左枕后 1 例, 右枕后与头顶部各 2 例。手术时机: 缺损界线清楚的 3 例行 1 期修复, 另 2 例待局部坏死界线清楚, 于伤后 6~8 d 择期手术修复。

## 2 手术方法

本组均在局部麻醉下手术, 先行局部清创术, 去除坏死皮缘。然后行皮瓣设计, 纵行设计 V 形三角皮瓣, 三角皮瓣的底与缺损等宽, 三角皮瓣的长度稍大于底边的宽度, 三角的一侧

穿破骨皮质形成软组织肿块, 较少出现骨膜反应。但两者骨质破坏发生较快, 易发生远处转移。此外, 仍需与组织细胞病及结核相鉴别, 其鉴别主要依靠病理学检查。

(4) 治疗: 该病治疗上以手术切除为主, 对于无法手术的患者可采用局部放疗, 但效果并不确定<sup>[5]</sup>。目前, 此病恶性性仍存在争议, 大多数预后良好, 最新 WHO 把本病归为恶性潜能未定的肿瘤。本例患者术后恢复良好, 随诊至今, 未有复发及转移病灶。

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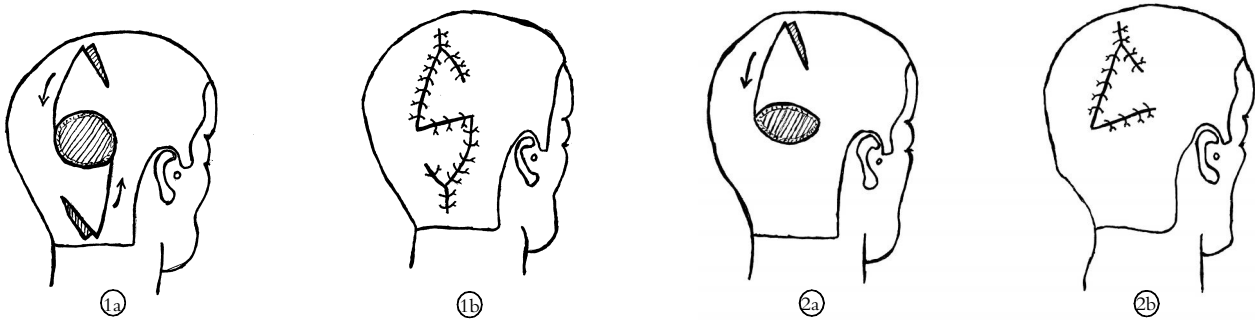


图 1a.V-Y-S 旋转皮瓣设计 图 1b.头皮缺损修复后 图 2a.设计一端 V 形三角皮瓣 图 2b.头皮缺损修复后

Fig.1a The V-Y-S rotation flap was designed Fig.1b The scalp defect was closed Fig.2a The one V shaped flap was designed Fig.2b The scalp defect was closed

全部切开,另一侧靠近缺损区一半不切开,作为皮瓣旋转的蒂部,靠三角尖部的一半切开,切口深度达帽状腱膜下。从该平面游离皮瓣,皮瓣周边也应行潜行分离,以利皮瓣旋转与前移,也有利于切口的关闭。圆形缺损需行双旋转皮瓣修复形成典型 V-Y-S 皮瓣旋转,另一端皮瓣设计与操作相同,但旋转蒂在另一侧(见图 1a, 1b)。对非圆形或扁形缺损则用一端旋转皮瓣就能完成修复(见图 2a, 2b)。创面 I 期修复不需行游离植皮。

3 结果

本组患者手术过程顺利,伤口愈合满意,皮瓣全部成活,修复后的外形满意,不需再次修整术,皮瓣上头发生长正常,局部没有瘢痕形成,没有出现与切口有关的并发症。术后随访 10~42 个月,平均 28 个月,1 例肿瘤患者随访 3 年未见病变复发,所有患者均取得满意的治疗效果。典型病例见图 3。



图 3 男,36 岁,因外伤致枕部头皮坏死 3a.坏死组织清除后,遗留 3 cm×5 cm 全层头皮缺损。设计一端 V 形三角皮瓣,三角皮瓣的底与缺损等宽 3b.从帽状腱膜下切取皮瓣,旋转前移皮瓣修复头皮缺损,未行游离植皮。术后伤口愈合良好,外形满意

Fig.3 A 36-year-old male patient with scalp necrosis on the left occipitalia due to trauma 3a.After excision of scalp necrosis tissue,scalp defect was 3 cm×5 cm. One V shaped flap was designed. The width of triangle base was equal to that of the defect 3b.V-shaped flap was elevated in a subgaleal plane. Scalp defect was closed without skin graft. The wound was healed well after the operation and the excellent cosmetic results were attained at the 2-year-follow-up

4 讨论

头皮是人体具有独特的生发组织,为多层结构,而且血供应丰富。头皮缺损按深度分为浅层与全层缺损,有多种修复方法,但基本的原则是应首选最简单的方法。因为头皮弹性较小,缺损稍大常难直接缝合,浅层缺损虽能用植皮修复,但应尽量避免这种方法,因外形差,且易出血与形成溃疡,常伴有局部疼痛。植皮只能作为一种暂时性的修复方法,最终需皮瓣修复。如果骨膜剥脱,创面不能直接缝合,常选用局部皮瓣或组织扩张器<sup>[3-4]</sup>。后者至少需 2 次手术操作,前者仅用于中小面积的头皮缺损。Onishi 等<sup>[5]</sup>报道应用颞浅血管为蒂的头皮 V-Y 前移皮瓣修复也取得了满意效果,但需游离颞浅血管,局部创伤较大,技术上有一定的难度。

V-Y-S 皮瓣旋转最先由 Demir 等<sup>[2]</sup>报道,主要用于难以用常规缝合方法治疗的全层头皮缺损。本组用该方法治疗头皮缺损也取得满意效果。主要的优点:①供区直接缝合,不需游离植皮,只需一次手术,不遗留需植皮修复的创面。②皮瓣设计和操作相对简单。③修复缺损面积较大。④不影响头皮头发生长。⑤皮瓣质地和颜色较好。⑥在皮瓣旋转过程中,不会形成“狗耳朵”,外形较满意。

对非圆形或扁形缺损则用一端旋转前移皮瓣就能完成修复。双侧局部旋转皮瓣修复技术,适用于各种类型的头皮修复,双侧旋转皮瓣比单侧皮瓣更有利于减轻局部张力。

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