

Beard Reconstruction - a Surgical Algorithm

BACKGROUND

Facial defects with loss of hair-bearing regions can be caused by trauma, infection, tumor excision, or burn injury. Several techniques, including local-, loco-regional-, and free flap transfers have been described. This analysis evaluates different surgical approaches with a focus on male beard reconstruction, emphasizing the role of tissue expansion of regional and free flaps.

METHODS

Loco-regional and free flap reconstruction were performed in 11 male patients with 14 facial defects affecting the hair-bearing bucco-mandibular or perioral region. In order to minimize donor site morbidity and obtain large amounts of thin, pliable, hair-bearing tissue, pre-expansion was performed in 5 of 14 cases. Eight of 14 were treated with loco-regional flap reconstructions, and 6 of 14 with free flap reconstructions. Algorithms regarding pre- and intra-operative decision-making are discussed and long-term (mean follow-up 1,5 yrs) results analyzed.

RESULTS

Major complications, including tissue expander infection with need for removal or exchange, partial or full flap loss, occurred in 0 % (0/8) of cases with loco-regional- and in 17 % (1/6) of patients receiving free-flap reconstructions. Secondary refinement surgery was performed in 25 % (2/8) of loco regional flaps and in 67 % (4/6) of free flaps.

CONCLUSION

Both loco-regional-, as well as distant tissue transfers have their role in beard reconstruction, while pre-expansion remains an invaluable tool. Paying attention to the presented principles and keeping the importance of aesthetic facial subunits in mind, range of motion, aesthetics and patient satisfaction were improved long-term in all our patients, while minimizing donor site morbidity.