An algorithmic approach for reconstruction of burn alopecia

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The purpose of this study was to assess the appropriateness of the clinical indications for the various reconstructive methods for burn alopecia and suggest an algorithm for individualized reconstruction. A review of 83 patients who underwent reconstruction for burn alopecia was conducted. Demographics, associated injuries, preoperative findings, surgical techniques, and postoperative complications were collected. From these data, we classified reconstructive methods based on the area, the scar quality, and the location of the burn alopecia, and investigated the clinical outcomes. Reconstructive methods included hair grafting (n=13), scalp reduction (n=21), scalp extension (n=14), and scalp expansion (n=37). Hair grafting was mainly performed for reconstruction of small, good-quality burn alopecia located in the frontal or parietal area. Scalp reduction was primarily used in small or medium burn alopecia in which scar quality was good or moderate. Scalp extension was mainly performed for reconstruction of medium and moderate-quality burn alopecia; scalp extension was particularly successful in the vertex region. Scalp expansion was the reconstructive procedure of choice for large, poor-quality burn alopecia. Twenty-eight (33.7%) patients experienced surgical complications and most of the complications were related to alloplastic implants used in scalp extension and expansion. The reconstructive method should be tailored to the conditions of the burn alopecia. Because scalp extension and expansion are associated with a high rate of complications, the authors recommend the use of these methods for large, poor-quality burn alopecia. On the other hand, hair grafting and scalp reduction are more appropriate treatment options for relatively small, good-quality burn alopecia.

Biography

Seong Ho Jeong has completed his PhD from Korea University and Postdoctoral studies from Korea University School of Medicine. He is a Professor of department of plastic surgery, Korea University Guro Hospital. He has published more than 20 papers in reputed journals.

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