Management of complex tissue injuries and replantation across the world

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Introduction

Severe injuries of the upper limb with injury or loss of more than one functional tissue component are termed "complex tissue injuries". Such injuries if not treated adequately usually result in amputation or severe morbidity. Obtaining consistent good outcome for patients with complex injuries and providing a good quality replantation service challenges most health care systems.

Introduction of the concepts of radical debridement, primary reconstruction and early extensive rehabilitation combined with the advent of microvascular surgery and stable fixation devices have made the salvage of severely injured limbs a definite possibility. A Study from Louisville has confirmed that salvaged upper limbs are functionally better than the best available prosthesis. Hence, it is worth going that extra mile in reconstructing an injured upper limb. This paper seeks to study the existing practices across the world and answer the question whether every patient who sustains such an injury gets the best possible medical care irrespective of the place that the patient lives and the person’s capacity to pay. When existing practices fall short an attempt is made to consider the likely cause and suggest possible remedies.

Summary

Management of complex tissue injuries and provision of replantation services calls for the availability of a dedicated team with high skill levels and good infrastructure. Centres of excellence which provide consistent good care exist in many parts of the world, but large populations are still left uncovered. In the developed world, the reduced exposure to such injuries, lesser training opportunities and poor reimbursement for the efforts put in are the problems. In the developing countries, lack of awareness of the possibilities, inadequate transport systems and infrastructure are the problems. In both systems the cornerstone for improvement will be the availability of well trained surgeons who will deliver consistent good results. Public education and developing a team around the surgeon will improve the results in developing countries. Collaboration with good units with high volume load in the developing countries will be beneficial for training and maintainance of the requied skill levels in the developed world.

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KEYWORDS
Complex tissue injuries; Replantation; Upper limb