Abstract:

BACKGROUND: Replantation after complete avulsion amputations at the level of the middle forearm is rarely reported in the literature and remains one of the most difficult challenges for microsurgeons. Microsurgery and its clinical applications are new procedures in Vietnam. The purpose of this article is to evaluate our replantation results in Vietnamese patients relating to this type of injury using microsurgical techniques.

METHODS: Ten replanted patients after complete avulsion amputations of the middle forearm, operated on at the Department of Trauma and Orthopedics in the Central University Hospital 108 in Hanoi, Vietnam during a 7-year period (between September 1999 and April 2006) were reviewed and subsequently evaluated. All patient information was reexamined and documented. RESULTS: All replants had survived. All cases of bone stabilization using plates and screws (3 of 10 cases) were postoperatively infected and required supplemental intervention with flap reconstructions, whereas this was not observed in seven other patients receiving Kirschner wires (KW) combined with cerclages. Replantation was performed in a patient associated with plexus brachialis paralysis of the affected limb, which was not detected before the procedure. The combined postoperative functional outcomes rated from "excellent" to "fair" in 70% of cases based on an average follow-up period of 20 months.
CONCLUSION: With respect to social and psychologic effects, performance of the procedure is extremely worthwhile because it not only provides complete limb preservation, but also has excellent potential for a favorable functional outcome.