

Comprehensive rehabilitation on amputation patients after crush injuries sustained during the Wenchuan earthquake

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Objective

To investigate the use of comprehensive rehabilitation on amputation patients' stumps after crushing injuries sustained during the Wenchuan earthquake.





Method

Sixty eight amputation patients.

- wound care,
- maintenance of correct limb position,
- stump shaping,
- exercise,
- ultraviolet,
- infrared,
- paraffin,
- electrical nerve stimulation therapies,
- audio electrotherapy,
- joint mobilization,
- massage.





	No. (rate)
amputation Position:	
shoulder	2 (2.70%)
arm	9 (12.16%)
forearm	3 (4.05%)
hip	2 (2.70%)
thigh	33 (44.59%)
calf	23 (31.10%)
foot	2 (2.70%)
Interval time between Injury and operation:	4 (18.19%)
36 h	15 (68.19%)
48 h	9 (56.25%)
≥ 72 h	3 (18.75%)
Complications	2 (12.5%)
Acute renal failure (ARF)	1 (6.25%)
Acute respiratory distress syndrome (ARDS)	1 (6.25%)
Acute left ventricular failure	
Hypoxic ischemia(H/I)	
ARF+ ARDS	



	Cases	Ratio
Healed	56	75.68%
Non-healed	6	8.11%
Swelling disappeared	38	51.35%
Joint contracture	24	32.43%



Results

Fifty six stumps (75.68%) healed in an average time of 78.88 ± 17.73 days, swelling was eliminated in 38 stumps (51.35%).

Only six stumps (8.11%) did not heal during a mean of ≥ 90 days (range, 90 - 237) and 24 stumps (32.43%) had joint contractures.





Conclusions

The incidence of adverse amputation stumps after the earthquake crushing was high. Comprehensive rehabilitation had a positive effect on promoting wound healing, eliminating of stump pain, recovering limb function, improving daily living function, sociability in amputees, and creating the necessary conditions for prosthetic limbs and future gait training.





Thanks for your attention!