Fingertip and nail bed injuries: treatment and prognosis

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Objective: analyze the treatment and prognosis in outcomes of 108 patients with fingertip and nail bed injuries

Methods: we performed 138 nail bed reconstructions between 2000 and 2014; 23 patients were excluded due to less than 12 months follow-up. In our series, 32 patients underwent suturing of the nail bed (SNB); 25 patients underwent suturing of the nail bed associated with an osteosynthesis of the distal phalanx (SNBOst); 8 patients underwent microsurgical reconstruction with transfer of the nail complex of the second toe (MRN); 18 received conventional graft reconstructions of the nail bed (CGNB); 19 received a nail bed graft in the emergency room (NBGE) and 13 others, a delayed graft (NBDG). Twenty-seven patients also underwent additional surgery - 17 Tranquilli-Leali flaps, six homodigital direct island flaps and in four cases a homodigital reversed island flap.

Results: Outcomes assessed were growth (0 = no growth; 1 = partial growth and 2 = normal growth), size (0 = less than 50%; 1 = between 25 and 50% and 2 = up to 25% of the size of the contralateral nail) and shape (0 = significant deformity on the horizontal and vertical planes; 1 = vertical deformity and 2 = no deformity) of the nail compared to the contralateral finger. The results obtained by the sum of scores were classified as good (5-6), regular (3-4) and poor. Results were considered good in all patients that underwent SNB and in those with SNBOst; in 4 MRN cases; and in 14 patients treated by CGNB, as well as in 11 patients who underwent NBGE and 7 patients who received NBDG. Regular results were obtained in 4 reconstructions performed by CGNB; in 4 cases of MRN; in 8 patients who underwent NBGE and in 6 patients who underwent NBDG. We obtained poor results in 4 patients that were subjected to NBDG.

Conclusions: patients without soft tissue loss of the nail bed and those who underwent reconstruction of the entire nail bed showed improved outcomes in comparison to those who underwent simple suturing.