

SURGICAL TREATMENT OF SUBUNGUAL GLOMUS TUMORS EXPERIENCE ON THE LATERAL SUBPERIOSTEAL AND TRANSUNGUAL APPROACHES

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INTRODUCTION

- Glomus tumors are rare benign tumors derived from the neuromyoarterial canal system of the Glomus body
- We report a series of 32 patients with glomus tumors in the subungual region of the hand, treated surgically with two different types of incisions
- The clinical efficacy and safety of the surgical treatment of glomus tumors performed by the lateral subperiosteal or the transungual approaches were analyzed

METHODS

- A retrospective analysis of thirty two patients divided into two groups
- Group 1: transungual approach (Figure 1), Group 2: lateral subperiosteal approach (Figure 2)
- Group 1: 14 patients (9 females, 5 males), Group 2: 18 patients (11 females, 7 males)
- The mean age was 39.7 years (range: 27 to 60) in group 1, 42.8 (range: 26 to 64) in group 2
- Our indications for selection of the approach in subungual glomus tumors are summarised in Table 1
- Postoperative sensation was evaluated by Semmes-Weinstein monofilament and two-point discrimination (2-PD) tests
- Preoperative and postoperative pain was assessed using Visual Analog Scale (VAS)
- All patients completed the Quick Disability of the Arm, Shoulder and Hand (QuickDASH) questionnaires

RESULTS

- Mean follow-up: 6.4 months in group 1, 26.7 months in group 2
- Semmes-Weinstein test: 92.8% in group 1 tested normal (green), 7.1% diminished light touch (blue). In group 2 88.8% normal (green), 11.1% diminished light touch (blue)
- 2-PD test results were 3.5 mm in group 1, 3.6 mm in group 2
- VAS score in group 1: 4 preoperatively, 1 postoperatively
- VAS score in group 2: preoperatively 3,5, postoperatively 0,7
- The mean preoperative QuickDASH scores in group 1 and 2 were 24.3 and 23.4 respectively

CONCLUSION

- The main advantages of lateral subperiosteal approach are reducing postoperative nail deformity and early recovery. However, not every glomus tumor is suitable for lateral subperiosteal approach. In peripherally located tumors, the lateral subperiosteal approach provides quick recovery of the cosmetic appearance and less deformation of the nail.

Lateral subperiosteal approach	Transungual approach
Peripherally located tumors without preoperative nail deformity	Centrally located tumors
	Preoperative nail deformity
	Wide nail discoloration
	Tumors extend proximally from the subungual region
	Tumors which necessitate graft reconstruction

Table 1: Good indications of two techniques in subungual glomus tumors

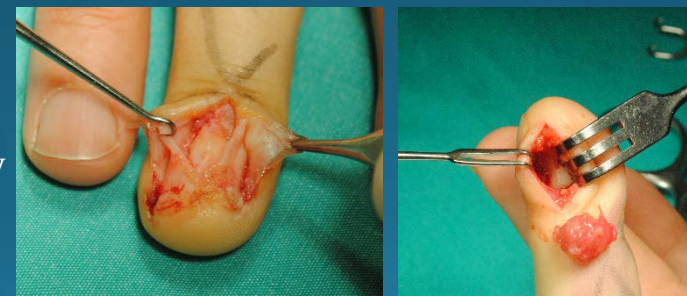


Figure 1

Figure 2