

Epidemiological profile and post-surgical evaluation of 8 glomus tumor cases

Estudo do perfil epidemiológico e avaliação pós-cirúrgica de oito casos de tumor glômico

ABSTRACT

Introduction: Glomus tumors are rare benign lesions that are most often found on the tips of the fingers; they account for 1.0–4.5% of neoplasias on the hand. Subungual glomus tumors occur more frequently in women in their 30s and 50s.

Objective: This study evaluated glomus tumor patients' epidemiological profiles, their satisfaction with the treatment and the rate of recurrence due to incomplete removal.

Method: The records of patients that were treated for glomus tumors at a dermatology clinic between 1992 and 2011 were evaluated regarding gender, age, profession, affected area of the body, satisfaction with the treatment and possible recurrence.

Results: The patients (n = 8, average 63 years) were older than those usually described in the literature. The most frequently described profession was that of housewife. All patients were satisfied with the aesthetic results of the treatment. There was a total improvement of the pain in three patients, while patients with a partial improvement in pain experienced a recurrence. The recurrence rate due to incomplete removal was 50%.

Conclusion: The surgery's effectiveness can be measured by the improvement of the pain; persistence of pain can indicate recurrence.

Keywords: therapeutics; glomus tumor; nails.

RESUMO

Introdução: O tumor glômico é lesão benigna rara que ocorre mais comumente em falanges distais e representa de 1% a 4,5% das neoplasias da mão. O tipo subungueal é mais frequente em mulheres nas terceira e quinta décadas de vida.

Objetivo: Este trabalho objetivou avaliar o perfil epidemiológico de pacientes com tumor glômico, sua satisfação em relação ao tratamento, e a recidiva por retirada incompleta.

Método: Estudaram-se os prontuários de oito pacientes com diagnóstico de tumor glômico tratados em serviço de dermatologia de 1992 a 2011 avaliando-se sexo, idade, profissão, região acometida, satisfação do paciente em relação ao tratamento e se houve recidiva.

Resultados: A média de idade dos casos foi de 63 anos, superior à faixa etária descrita pela literatura. A profissão mais relacionada foi "prezadas domésticas". Todos os pacientes ficaram satisfeitos com o tratamento do ponto de vista estético. A melhora da dor foi plena em três dos seis pacientes que retornaram para avaliação. Naqueles em que a melhora não foi total, houve recidiva. A taxa de recidiva por retirada incompleta foi de 50%.

Conclusão: Conclui-se a persistência da dor como indicadora de recidiva e percebe-se a efetividade da cirurgia na melhora da dor.

Palavras-chave: terapêutica; tumor glômico; unhas.

Original Article

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INTRODUCTION

A glomus tumour (GT) is a rare, benign lesion that are most often found on the tips of the fingers; they account for 1.0-4.5% of neoplasias on the hand.¹ They are characterized by intense and debilitating pain, and pulsing sensitivity to pressure and temperature.² Diagnosis can be based on a physical examination; a Love test is used, which gauges the pain of putting pressure on the tumor.³ Complementary examinations such as x-ray, ultrasound and magnetic resonance can be requested; the latter is the most sensitive.⁴ The treatment of choice is surgical excision, which can have unaesthetic results. This study examined the profile of patients treated at a Dermatology clinic who were diagnosed with GT, and evaluated the treatment, the aesthetic result, the improvement in pain levels and the recurrence due to incomplete removal.

METHOD

This study evaluated eight GT cases treated at the Dermatology clinic of the Instituto Lauro Souza Lima, in Bauru (SP), Brazil, between 1992 and 2011. It was carried out with the approval of the institution's Ethics Committee. The patients' medical records were analyzed to determine gender, age, profession, affected body area, elapsed time until diagnosis, comorbidities, complementary examinations and pain characteristics.

The patients were then asked to evaluate their satisfaction with the treatment (improvement of pain and post-operative aesthetic outcome) and were assessed for possible recurrences due to incomplete removal.

RESULTS

The average age of the patients was 63 (range 36-77), with six women and two men. Six of the eight patients presented lesions in the fingers, one in the left big toe and one in the right smallest toe (Table 1). Of the seven patients with lesions on their fingers and toes, five had lesions under the nail (subungual region) and two had them around the nail (periungual region) (Table 1 and Figure 1). The most frequent comorbidities were diabetes mellitus and arterial hypertension (Table 1). Four of the patients described their profession as housewives, two had administrative duties and one worked as an ovenman. All patients presented intense pulsing pain that worsened with touch, and two described a worsening of the pain with exposure to low temperatures. The time between the start of the pain and the diagnosis ranged from one to 35 years, with an average of 13.5 years. X-rays that demonstrated typical alterations were requested for only two of the seven patients (one in the fourth right finger and another in the left big toe). These typical alterations

Table 1: Profiles of glomus tumor patients

Name	Age	Gender	Profession	Development duration	Location	Year	Comorbidities	Pain improvement
Patient 1	65	F	Civil servant	5 years	3rd left finger (periungual)	2003	None	60%
Patient 2	75	F	Housework	35 years	Left big toe (subungual)	2004	SAH, DM	100%
Patient 3	65	F	Tradesman	5 years	Right thumb	2004	None	Not evaluated
Patient 4	58	M	legal secretary	6 years	Right thumb (subungual)	2005	Hypoacusis	70%
Patient 5	68	F	Housework	30 years	4 th right finger (nail bed)	2008	SAH	100%
Patient 6	77	F	Housework	1 years	4th right finger (periungual)	2010	SAH, DM	60%
Patient 7	62	F	Housework	20 years	4th right finger (subungual)	2011	None	100%
Patient 8	36	M	Ovenman	4 years	Right inferior limb	1992	Saturnism	Not evaluated

Table with a profile of patients with glomus tumor



Figure 1 - A: Periungual tumor: pre-operative (mild local erythema); B: Tumor excision; C: Healing without sequel in the post-operative period (Patient 6)

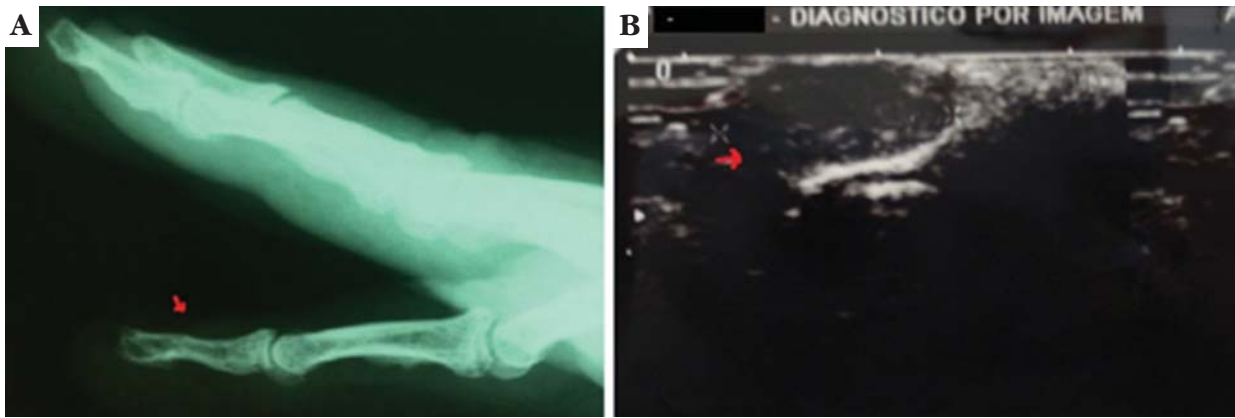


Figure 2
A: X-ray: depression of tips of the fingers;
B: Ultrasound: well-delimited hypoechoic nodule

were: depressions in the distal phalange with the thinning of the cortical and the medullar (Figure 2A). Only one patient underwent ultrasonography, which revealed a 1.2 cm nodular lesion (Figure 2B). All patients had surgical treatment (Figure 3).

Of the eight patients invited for a post-operative evaluation later the same year, six returned to the clinic. The alterations found in the post-operative examination were: longitudinal streak (one case) (Figure 4); pterygium (two cases) (Figures 5

and 6); and distal ingrown nail, which spontaneously improved (one case) (Figure 7). All patients described an improvement of the pain; three patients reported a 100% improvement. Nevertheless, of the six re-evaluated patients, three (50%) described a resurgence of the pain. These patients had additional surgeries, and the presence of the tumor – which had probably not been completely removed – was verified again. Six patients reported they were satisfied with the aesthetic outcome.

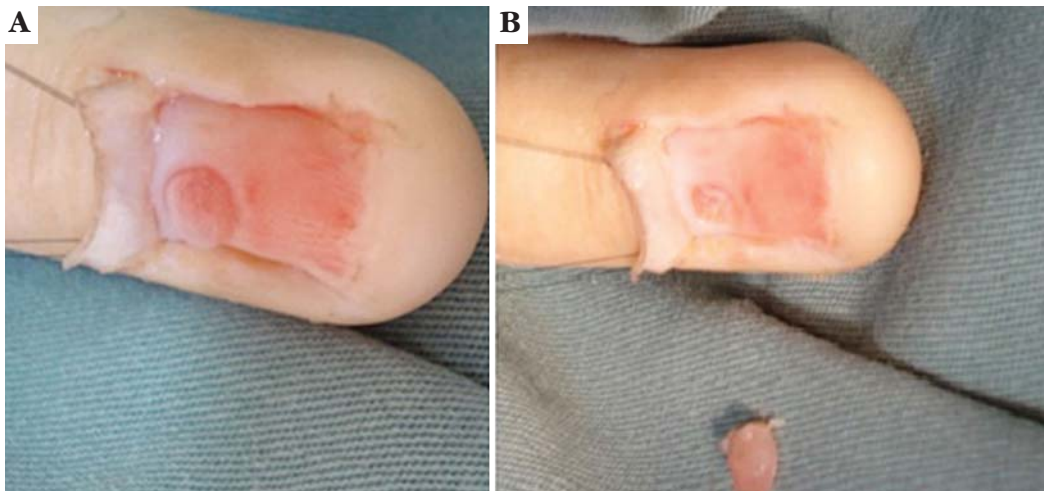


Figure 3 - Surgical treatment: complete removal of the nail and subsequent excision of the tumor (Patient 7)

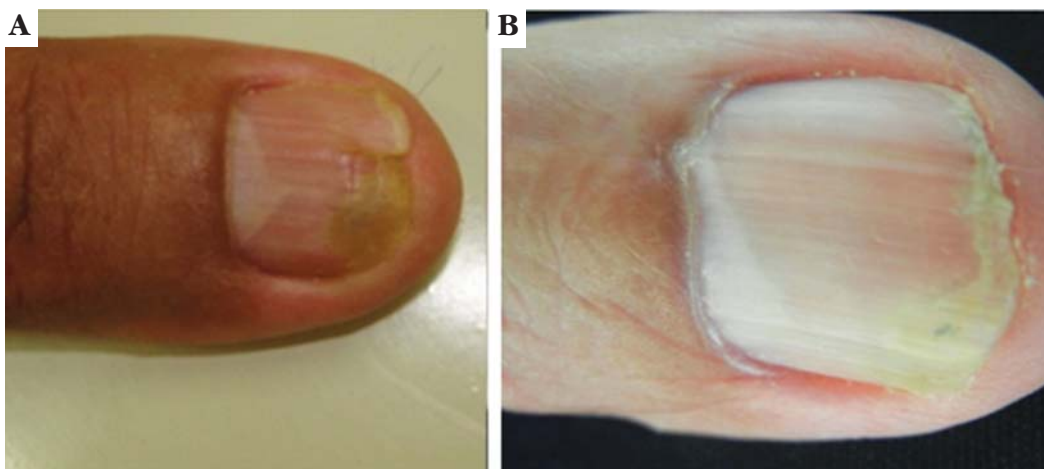


Figure 4 - A and B: Pre - and post-operative (presence of longitudinal crease) (Patient 4)

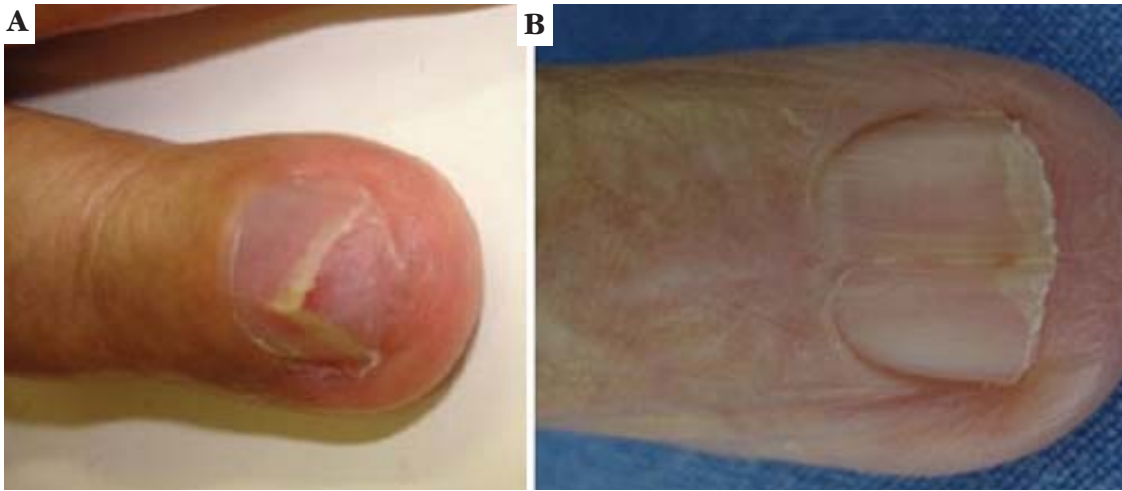


Figure 5 - A: Pre-operative tile and **B:** Post-operative (pterygium) (Patient 5)

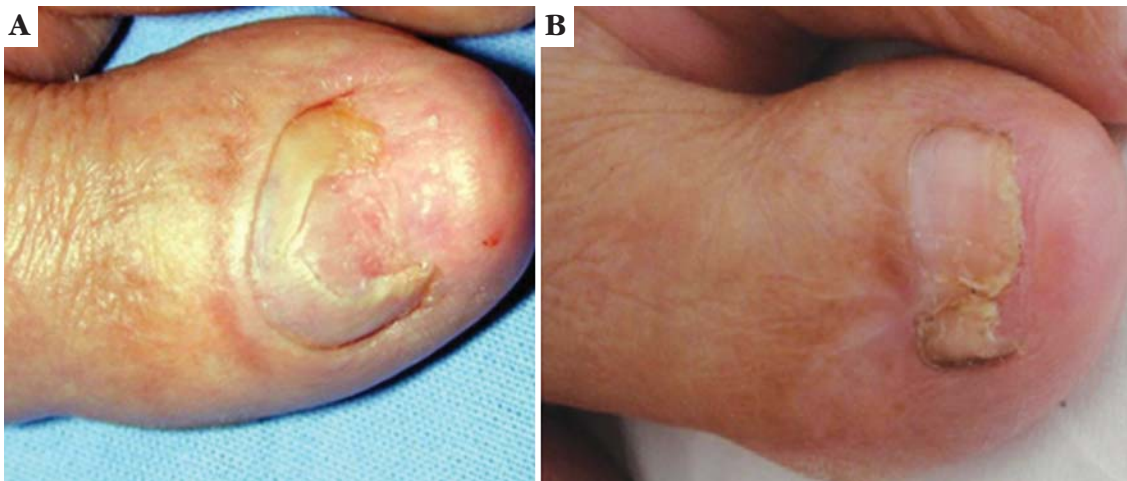


Figure 6 - A: Pre-operative; **B:** Post-operative with pterygium (Patient 2)

DISCUSSION

In the series of cases studied, there was a prevalence of female patients (75%). The GT more frequently affected the chirodactyls; these findings align with previously published data.^{5,6} The average age in the studied cases was 63, higher than the age group described by other authors.⁶ The most frequent profes-

sion was housework, in line with the literature, which describes a correlation with mechanical traumas linked to housework activities.^{2,7}

Complementary examinations were carried out in only three cases, with diagnostic hypotheses based on clinical findings (Figure 8) and positive Love tests. The GT diagnosis was confir-

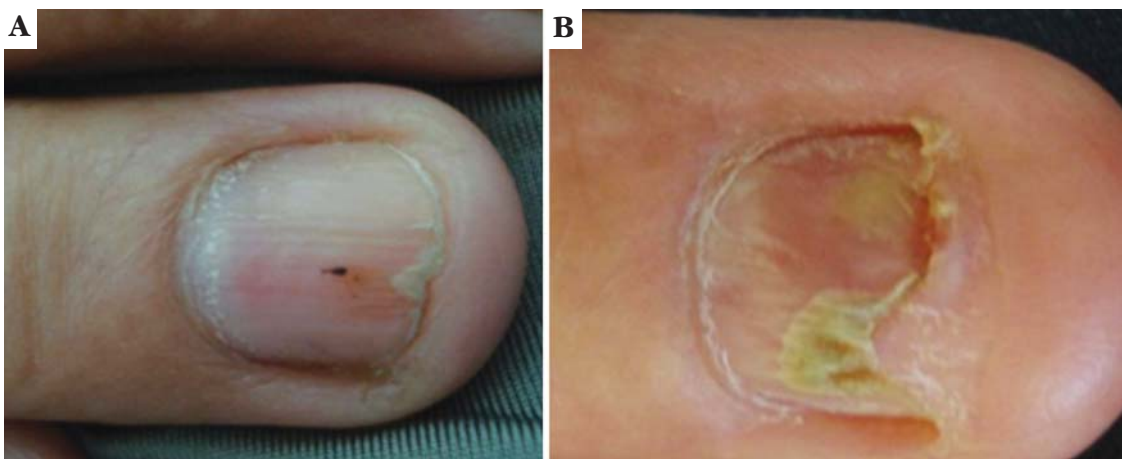


Figure 7 - A: Pre-operative; **B:** Post-operative (distal ingrowing of the nail, with proximal section untouched, without deformity) (Patient 7)



Figure 8 - Physical examination: dermoscopy of the subungual lesion (Patient 7)

med by histopathologic examination (Figure 9) in all cases.

All evaluated patients were aesthetically satisfied with the treatment. The pain ceased in three of the six cases. In the other three cases, there was initial improvement with subsequent worsening. The recurrence rate due to incomplete removal was 50% – higher than the 10–20% range described by other authors.⁸

CONCLUSION

Surgery, as the only treatment option, is usually well accepted and yields satisfactory results. Nevertheless, it is important to explain to patients that the aesthetic results might not be highly satisfactory. The persistence of the pain usually signifies a recurrence of the lesion and the need for further treatment. ●

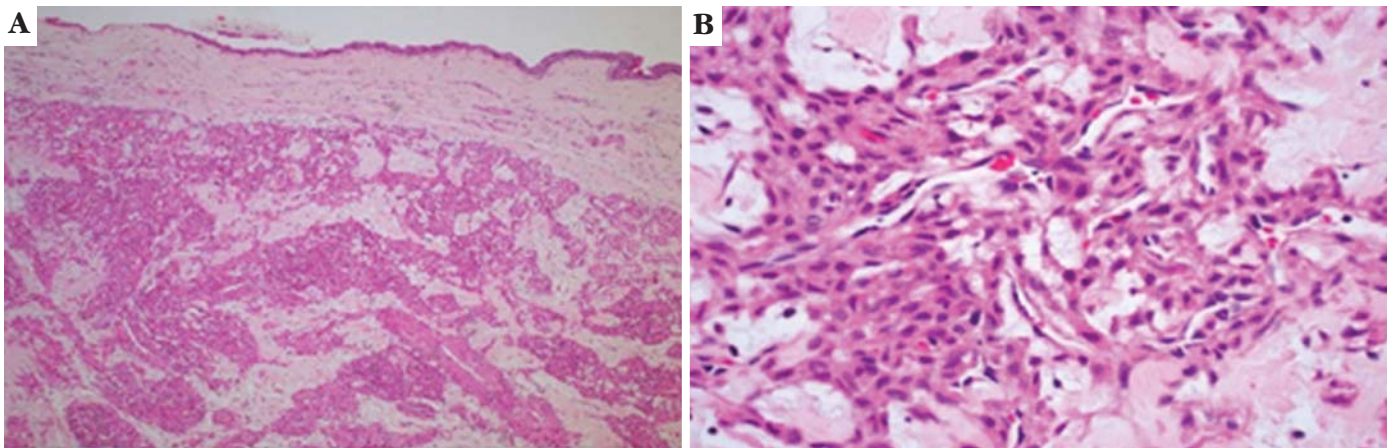


Figure 9 - Histopathology - HE: glomus cells nests (smaller and larger magnification)

REFERÊNCIAS

1. Geertruyden JV, Lorea P, Goldschmidt D, Fontaine S, Schuind F, Kinnen L, et al. Glomus tumours of the hand. A retrospective study of 51 cases. *J Hand Surg.* 1996;21(2):257-60.
2. Carrol RE, Berman AT. Glomus tumors of the hand. *J Bone Joint Surg.* 1972;54(4):691-703.
3. Rohrich RJ, Hochstein LM, Millwee RH. Subungual glomus tumors: an algorithmic approach. *Ann Plast Surg.* 1994;33(3):300-4.
4. Hou SM, Shih TTF, Lin MC. Magnetic resonance imaging of an obscure glomus tumour in the fingertip. *J Hand Surg Br.* 1993;18(4):482-3.
5. Gandon F, Legaillard P, Brueton R, Le Viet D, Foucher G. Forty-eight glomus tumors of the hand. Retrospective study and four-year follow-up. *Ann Chir Main Memb Super.* 1992;11(5):401-5
6. Vanti Adriana Amorim, Cucé Luiz Carlos, Di Chiacchio Nilton. Tumor glômico subungueal: estudo epidemiológico e retrospectivo, no período de 1991 a 2003. *An. Bras. Dermatol.* 2007; 82(5): 425-31.
7. Shugart RR, Soule EH, Johnson EW. Glomus tumor. *Surg Gynecol Obstet.* 1984;117:334-40.
8. Cernea SS, Di Chiacchio N, Vanti A. Tumores glômicos subungueais tratados pela cirurgia micrográfica de Mohs: índices de recidiva e revisão de literatura. *Surg Cosmet Dermatol.* 2009; 1(2): 70-3.