

Solid Glomus Tumor Under the Nail Bed: Surgical and Histopathologic Evaluation

TIRNAK YATAĞI ALTINDA SOLİD GLOMUS TÜMÖRÜ: CERRAHİ VE HİSTOPATOLOJİK DEĞERLENDİRME

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Summary

Glomus tumor is benign, extremely painful vascular lesion frequently localized beneath the nail. Surgical excision which provides immediately relief of complaints is the unique therapeutic approach. In this report, we present a surgically excised subungual lesion which is diagnosed as glomus tumor both clinically and histopathologically.

Key Words: Glomus tumor, Surgical excision

T Klin J Med Sci 2000, 20:175-177

Özet

Glomus tümörü, çoğunlukla tırnak yatağında yerleşim gösteren, oldukça ağrılı, benign vasküler bir lezyondur. Hastaların yakınmalarının oldukça hızlı bir şekilde düzelmesine yol açan cerrahi tedavi en etkili yöntemdir. Burada klinik ve histopatolojik olarak glomus tümörü tanısı koyduğumuz bir olguyu sunmaktayız.

Anahtar Kelimeler: Glomus tümörü, Cerrahi eksizyon

T Klin Tıp Bilimleri 2000, 20:175-177

Glomus tumor (GT) is a circumscribed benign vascular lesion, usually located in the skin. Most occur in a distal phalanx, often beneath the nail. Pain, tenderness and temperature sensitivity are the classical triad of symptoms of a GT. It was initially reported by Cheselden in 1740 as a subungual solitary tumor of the glomus type, and first characterized histologically by Masson in 1924 (1-4). We present a patient who has a GT under the nail bed in this report. It was excised surgically and found identical with GT under histopathological examination.

Case Report

A 52 year -old man presented with a painful swelling of the left thumb nail bed. He was a worker and the pain was aggravated by compression of the nail especially during his own routine work. Approximately 8 years beforehand he had noticed

thumb tip pain which was aggravated by exposure to cold. He had visited other hospitals before he visited us, but the diagnoses remained unclear.

Physical examination revealed 5 x 5 mm sized nodule with a brownish discoloration and minimal elevation of the nail (Figure 1). Before starting the operation, digital block anaesthesia was performed using 2 percent prilocain without epinephrine and a tourniquet was applied to get hemostasis. First the nail plate was avulsed completely. Then full exposure of the matrix and proximal nail fold was obtained by making two full-thickness tangential incisions laterally and proximally from a point where the lateral and proximal nail folds meet. The flaps were retracted with skin hooks for full exposure of the matrix and proximal nail groove. Suspected tumor was seen just under the nail matrix and then nail matrix was incised about 3-4 mm horizontally and glomus tumour located under the nail matrix was visualized. A 5 x 5 mm brownish mass was removed and matrix was sutured by using absorbable (vicryl 6.0) suture material. At the end of the surgical intervention, the flap was either sutured or fastened back into its place with Steri-Strips. A non-adherent gauze dressing correctly was applied cor-

Geliş Tarihi: 03.02.2000

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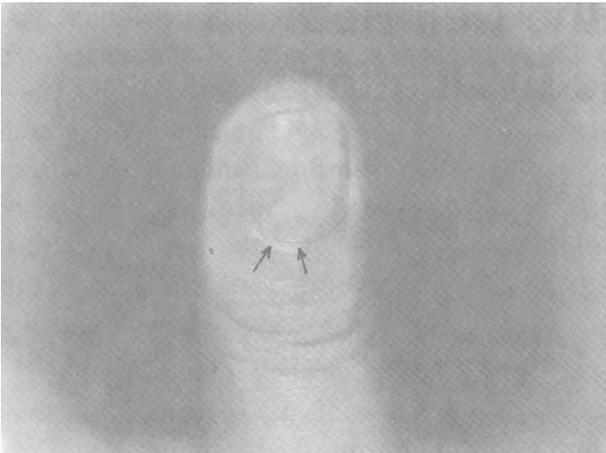


Figure 1. A 5 x 5 mm sized nodule with a brownish discoloration and minimal elevation of the nail.

rectly on whole nail bed. Healing occurred uneventfully over the subsequent weeks and there was no clinical evidence of recurrence at 10- months review.

Histopathologically, the tumor consist of palisading endothelium-lined vascular structures surrounded by solid islands, or small clusters of specialized glomus cells (Figure 2). Glomus cells are small monomorphous cells with oval to round nuclei and scanty cytoplasm (Figure 3).

Discussion

Encapsulated glomus tumor of the arteriovenous anastomosis of the digital dermis is rare and benign, arising from a neuromyoarterial glomus body, most commonly in the hand and it is sometimes difficult to diagnose accurately before surgery (1). Malign transformation has never been reported until now (6). They are usually solitary but may be multiple. They may be hereditary forms are also present and in this form may be associated with von Recklinghausen's neurofibromatosis. The clinical appearance is quite characteristic, with a bluish-red discoloration visible through the nail plate plus pain and tenderness aggravated by direct pressure, heat, and cold exposure. A typical GT of the hand is readily diagnosed. The correct clinical diagnosis may be verified by magnetic resonance imaging (MRI) and excisional biopsy (1,7,8). It can be differentiated from mucoid pseudocyst, fibrokeratoma and subungual exostoses clinically.

Histopathologically solid GT can be distinguished from eccrine spiradenoma. Occasionally intradermal nevus with pseudovascular spaces resembles a glomus tumor (9).

Our case had no other systemic disease accompanying GT. He had had only a pain which was aggravated by compression of the nail especially during daily work and by exposure to cold. He had visited plastic surgeons, general surgeons and orthopedists before visited us but the diagnosis had remained unclear. The diagnosis was obtained histopathologically following surgical excision which gave immediate relief of pain and other complaints. Surgical approach is the only available treatment method (5). Metastases do not occur.

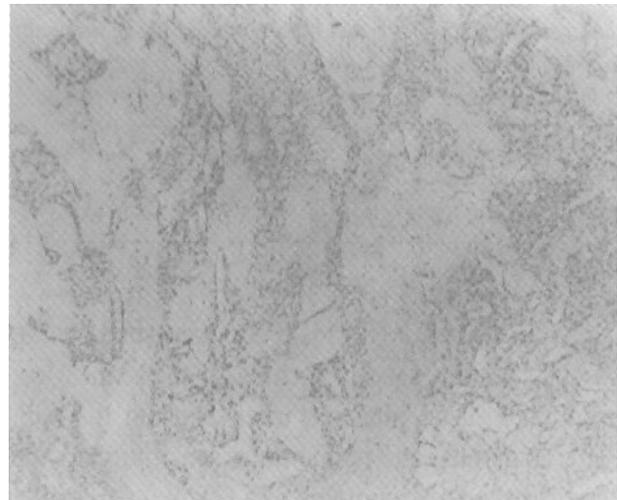


Figure 2. Specialized glomus cell islands around vascular structures. (H-E x 50).

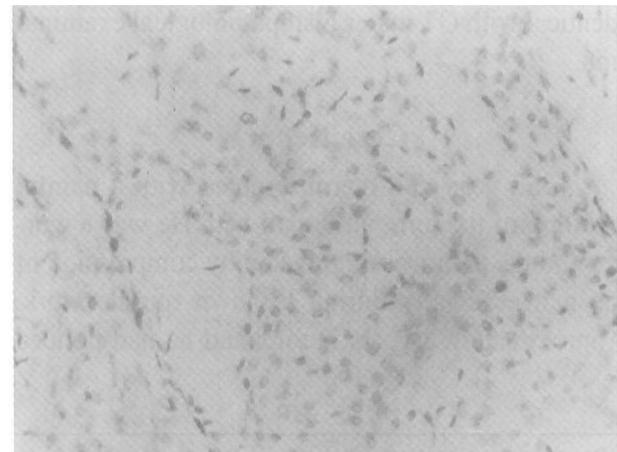


Figure 3. Small, monomorphous glomus cells with oval to round nuclei, and scanty cytoplasm (H-E x 200).

Various surgical techniques can be used for excision. The tumor can be exposed through a punch excision of the overlying nail plate, partial excision of the nail plate, or total nail avulsion. Our patient had a larger lesion therefore we performed total nail plate avulsion, incision and elevation of the matrix before excision of the lesion. Finally a careful reapproximation of the matrix was performed. After 10 months, there were no clinical and symptomatic recurrence.

The diagnosis and treatment of a disease with a surgical treatment such as GT by dermatologist is important since it reflects the advance in field of dermatology in Turkey.

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