



# GLOMUS TUMOR

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Glomus tumor is a rare benign soft tissue neoplasm presenting in the second to fourth decade of life and originates from the glomus body. It accounts for 1-5% of all soft tissue tumors of the upper extremity. A glomus body is a component of the dermis layer of the skin, involved in thermoregulation. The glomus body consists of an arterio-venous shunt surrounded by a capsule of connective tissue and is found in increased amounts in the fingers and toes. The glomus body shunts blood away from the skin surface during cold temperatures thereby preventing heat loss, and causes maximum heat flow to the skin in warm weather.

Glomus tumors present as painful less than 2cm, blue-red blanchable papules or nodules in the deep dermis or subcutaneous fat most commonly on the fingers and toes and under the nail plate. They are composed of glomus cells, vasculature, and smooth muscle cells. During cold temperatures or pressure changes these tumors elicit severe paroxysmal pain and discomfort to the patient.

Two useful findings for diagnosing glomus tumors especially those under the nails are the Love test and the Hildreth sign. The Love test is where one applies pressure to the suspected area with a pencil tip or pinhead and intense pain should be elicited. The Hildreth sign is a reduction in pain and tenderness with the love test when using a tourniquet to induce transient ischemia.

The cause of the proliferation of glomus cells in Glomus tumor is unknown however there have been theories that trauma induces solitary subungual glomus tumors.

Glomus tumors that are skin-colored or located in the nail matrix have a higher incidence of recurrence. The curative treatment of choice for symptomatic solitary glomus tumors is total surgical excision to minimize the rate of painful recurrence. There have been reports that **laser** and **sclerotherapy** may be effective in some cases of solitary glomus tumors however, complete excision is the best option. For subungual tumors, preoperative imaging studies with color Doppler ultrasonography and magnetic resonance provides information on tumor size, shape, and precise anatomic location. They are treated with total nail avulsion followed by excision.

In cases where there are multiple glomus tumors, excision may be more difficult because of the large number of lesions. Therefore, there have been several studies that show the use of argon, carbon dioxide or Nd:YAG laser therapy, or sclerotherapy with hypertonic saline or sodium tetradecyl sulfate are a better choice of treatment.

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