# "Pink glow": A new sign for the diagnosis of glomus tumor on ultraviolet light dermoscopy

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## ABSTRACT

Glomus tumors are usually benign hamartomas, which are painful, small, and uncommon. They are usually subungal in location but may occur at other sites. A female patient presented to the outpatient department with painful swelling over the nail matrix of her right index finger. Here, we describe the use of a videodermosope having white light, polarized light, and ultraviolet (UV) light in the localization of glomus tumors that revealed a pinkish glow on UV light examination suggesting the vascular nature of the tumor. Thus, videodermoscopy can be used as an outpatient department procedure to confirm the diagnosis of glomus tumors.

**Key words:** Dermoscopy, glomus tumor, pink glow, UV light

Access this article online

**Website:** www.idoj.in

**DOI:** 10.4103/2229-5178.171041

Quick Response Code:

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## INTRODUCTION

Glomus tumor is a rare hamartoma, which arises from glomus body situated at the arterial end. Glomus tumors are usually solitary but can be multiple.[1] This tumor is generally common in young adults (20–40 years of age) and females are more commonly affected.[1] Here, we present videodermoscopic findings in a young female who had glomus tumor over the nail matrix of her right index finger.

## CASE REPORT

A 23-year-old unmarried female came with the complaint of painful subungual swelling over the distal end of right index finger since 3 years. The lesion was very painful even to touch and light pressure (Love's sign), which affected her daily activities. The pain was severe, radiating, and increased on exposure to cold.

She had approached various specialists and was extensively investigated including radiography and magnetic resonance imaging (MRI) of the affected finger, which did not reveal any abnormality.

On clinical examination, there was an ill-defined swelling over the nail matrix of her right index finger with a slightly rounded, uniform elevation [Figure 1]. Love's sign was positive.[2] The nail plate was normal without any linear erythematous markings suggestive of vascular abnormality.

A videodermoscopy of the lesional site was done using white light, polarized light, and ultraviolet (UV) light. On white light, the swelling was well appreciated [Figure 2], whereas on polarized light altered pigmentary network pattern of the overlying skin was revealed [Figure 3]. UV light revealed a pinkish glow, which suggested the vascular nature of the tumor[3] [Figure 4].

Ultrasonography (USG) of local area revealed hypoechoic nodule with prominent vascularity between distal phalanx and nail body, suggestive of glomus tumor. Surgical excision was done and the sample was sent for histopathological examination.



**Cite this article as:** Thatte SS, Chikhalkar SB, Khopkar US. "Pink glow": A new sign for the diagnosis of glomus tumor on ultraviolet light dermoscopy. Indian Dermatol Online J 2015;6:21-3.

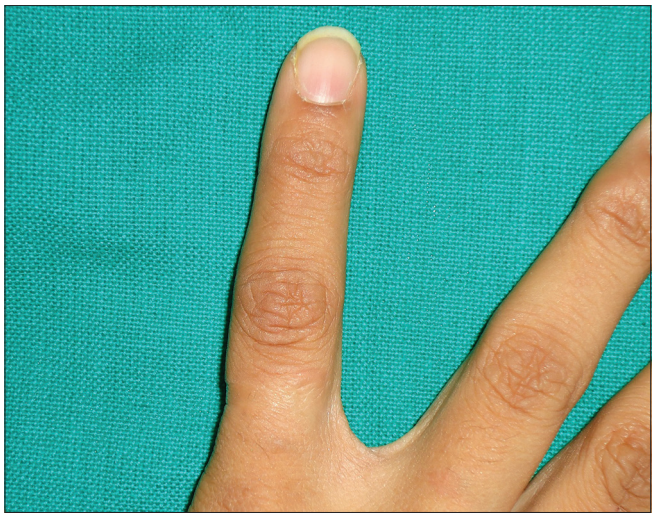

**Figure 1:** Glomus tumor: Barely perceptible lesion over nail matrix of right index finger

**Figure 3:** Glomus tumor: Altered pigmentary network on polarized light dermoscopy

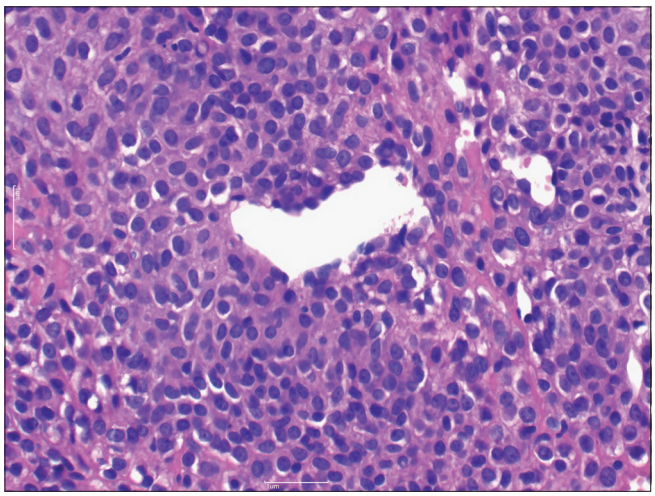

**Figure 5:** Glomus tumor: Neoplastic glomus cells with monomorphic round or oval nuclei and abundant pink cytoplasm. (H and E ×40)

Histopathology revealed presence of glomus cells arranged around vascular spaces lined by endothelial cells, which confirmed diagnosis of glomus tumor [Figure 5].

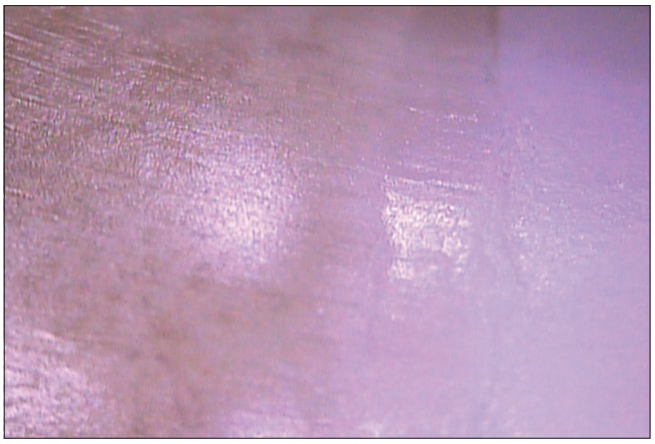

**Figure 2:** Glomus tumor: Slight elevation on white light dermoscopy

**Figure 4:** Glomus tumor: Pink glow on ultraviolet light dermoscopy

## DISCUSSION

Glomus tumor is an uncommon tumor arising from the glomus cells. They are usually noted in subungal locations. They are extremely painful to pressure, exposure to cold, and even to touch.[4] The pain increases on application of pressure with the tip of a pencil over the precise area (Love's sign[2]).

Treatment of choice for glomus tumor is surgical excision. Recurrences are noted due to local invasion of tumor. Sclerotherapy as well as laser therapy with $CO_2$, KTP, Nd: YAG, and pulsed dye can be employed.[1]

Pre- and intraoperative use of dermoscope in a case of glomus tumor revealed discrete linear vascular structure on nail plate and numerous ramified telangiectasia on nail bed and matrix during surgery.[5]

To the best of our knowledge, the above-mentioned findings on polarized light and use of UV light source for characterising glomus tumors are not reported

previously in the literature. USG needs expertise for early diagnosis, whereas cost and low specificity are the disadvantages of MRI. Thus, videodermoscopy with inbuilt white light, polarized light, and UV light can be used as an outpatient procedure to confirm the diagnosis of glomus tumor.

## Financial support and sponsorship

Nil.

## Conflicts of interest

There are no conflicts of interest.

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