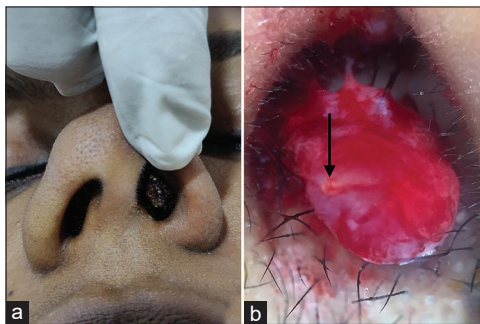


## Dermoscopy-Aided Diagnosis of Nose Ring-Associated Pyogenic Granuloma

Nose piercing is a common decorative body piercing practiced all over the world for beautification and symbolic purposes. It can lead to complications such as infection, foreign body granuloma, keloid, pyogenic granuloma, and rarely, even basal cell carcinoma. Here, we describe two cases of pyogenic granuloma that developed at the site of a nose piercing with characteristic dermoscopy findings.

A 20-year-old female presented to our clinic with a swelling inside her left nasal cavity noticed 3 weeks ago. A decorative nose piercing with a gold stud in the left nasal ala had been done 2 months prior to presentation. Examination revealed a solitary hyperpigmented pedunculated swelling on the mucosal aspect of the left nasal ala measuring 1 × 0.5 cm, with crusting on the surface [Figure 1a]. Contact dermoscopy (DermLite IV DL4; 3 Gen Inc., San Juan Capistrano, CA, USA; polarized mode, 10×) after removing the crust showed red homogenous areas and white zones consistent with pyogenic



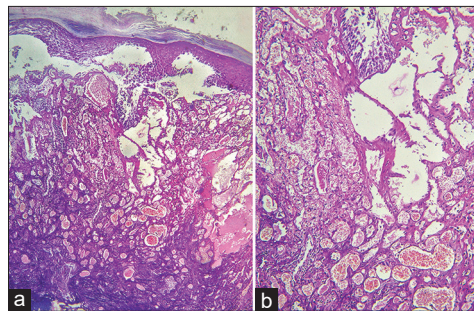
**Figure 1:** (a) Pedunculated swelling with crusting on surface visible inside the left nasal cavity, attached to the lateral wall corresponding to the site of nose piercing. (b) Dermoscopy (DermLite IV DL4; 3Gen; polarized mode, 10 × magnification) showing red homogenous areas and white zones. A golden glint is visible in the center of the lesion corresponding to the stud of the nose piercing (black arrow)

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

granuloma. Interestingly, a golden glint was visible in the center of the lesion corresponding to the stud of the nose piercing [Figure 1b]. Removal of the lesion *in toto* was done by electrodesiccation at the base. Light microscopy of the specimen showed hyperkeratotic and parakeratotic stratified squamous epithelium with lobular pattern of vascular proliferation, edematous stroma, and mixed inflammatory infiltrate, confirming pyogenic granuloma [Figure 2a and b]. The second patient was a 30-year-old female who noticed a red, raised lesion adjacent to her nose piercing, slowly increasing in size for past 2 weeks. On examination, a 0.5-cm erythematous papule was identified on the left nasal ala impinging on the nose ring [Figure 3a]. Dermoscopy showed red homogenous areas with white zones and white lines, central hemorrhage, and remnants of collarette in some peripheral points in a lesion that appeared emerging from the underside of nose ring [Figure 3b]. The lesion was removed by electrodesiccation.

Pyogenic granuloma, better termed as lobular capillary hemangioma, is a



**Figure 2:** (a) Histopathological examination (hematoxylin and eosin stain, 40×) shows focally thinned-out hyperkeratotic and parakeratotic epithelium overlying an engorged stroma with vascular spaces. (b) These vascular spaces were lobular proliferation of capillaries surrounded by mixed chronic infiltrate within an edematous stroma (hematoxylin and eosin stain, 100×)

**How to cite this article:** Jayasree P, Kaliyadan F, Raja HM. Dermoscopy-aided diagnosis of nose ring-associated pyogenic granuloma. *Indian Dermatol Online J* 2020;11:436-7.

**Received:** 02-Apr-2019. **Revised:** 27-Jun-2019.  
**Accepted:** 01-Jul-2019. **Published:** 10-May-2020.

Puravoor Jayasree,  
Feroze Kaliyadan<sup>1</sup>,  
Haritha M. Raja<sup>2</sup>

Departments of Dermatology and <sup>2</sup>Pathology, Medical Trust Hospital, Cochin, Kerala, India, <sup>1</sup>Faculty of Dermatology, College of Medicine, King Faisal University, Al Ahsa, Saudi Arabia

### Address for correspondence:

Dr. Puravoor Jayasree,  
Consultant Dermatologist,  
Medical Trust Hospital,  
Cochin - 682 016, Kerala, India.  
E-mail: jayasree5678@gmail.com

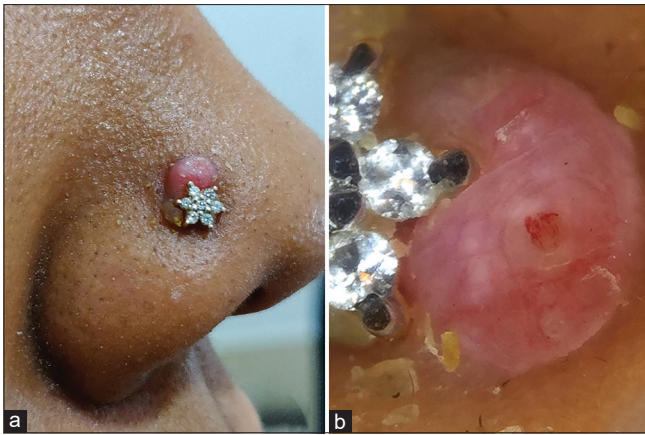
### Access this article online

Website: www.idoj.in

DOI: 10.4103/idoj.IDOJ\_155\_19

### Quick Response Code:





**Figure 3:** (a) Erythematous papule impinging on the upper border of nose ring situated on the left nasal ala. (b) Dermoscopy (DermLite IV DL4; 3Gen; polarized mode, 10 × magnification) showed red homogenous areas, white zones with dividing lines in between, and central hemorrhage

neovascular response to an angiogenic stimulus, which can be infection, trauma, pregnancy, or drugs.<sup>[1]</sup> Use of unsterile instruments, improper piercing technique, and inadequate aftercare can lead to postpiercing infections. Nasal piercings have a greater risk of getting infected in the setting of mucosal colonization with staphylococci.<sup>[2]</sup> Foreign body granulomas and granulomatous contact dermatitis associated with piercings are close differential diagnoses.<sup>[3]</sup> The dermoscopic findings in our cases, i.e., reddish homogenous areas and white lines, were diagnostic of pyogenic granuloma.<sup>[4]</sup> Clinical examination of nasal cavity lesions is difficult due to their location. Identification of salient features on dermoscopy can also streamline management, as definitive diagnosis

enabled us to remove the lesions without delay. It was interesting to note the golden stud which was the niche for development of pyogenic granuloma in the first patient and the emergence of the lesion from the nose ring in the second patient along with other diagnostic features.

### *Declaration of patient consent*

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patients have given consent for images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity.

### *Financial support and sponsorship*

Nil.

### *Conflicts of interest*

There are no conflicts of interest.

### *References*

1. Plachouri KM, Georgiou S. Therapeutic approaches to pyogenic granuloma: An updated review. *Int J Dermatol* 2019;58:642-8.
2. Ladizinski B, Nutan FN, Lee KC. Nose piercing: Historical significance and potential consequences. *JAMA Dermatol* 2013;149:142.
3. Jappe U, Bonnekoh B, Gollnick H. Persistent granulomatous contact dermatitis due to palladium body-piercing ornaments. *Contact Dermatitis* 1999;40:111-2.
4. Zaballos P, Carulla M, Ozdemir F, Zalaudek I, Banuls J, Llambrich A, *et al.* Dermoscopy of pyogenic granuloma: A morphological study *Br J Dermatol* 2010;163:1229-37.