

## REFERENCES

1. Harland CC, Saihan EM. Regression of cutaneous metastatic malignant melanoma with topical diphencyprone and oral cimetidine. *Lancet* 1989;2:445
2. Damian DL, Saw RP, Thompson JF. Topical immunotherapy with diphencyprone for in transit and cutaneously metastatic melanoma. *J Surg Oncol* 2014;109:308-313
3. Kim YJ. Topical diphencyprone as an effective treatment for cutaneous metastatic melanoma. *Ann Dermatol* 2012;24:373-375
4. Zito CR, Kluger HM. Immunotherapy for metastatic melanoma. *J Cell Biochem* 2012;113:725-734
5. Park KD, Lee SJ, Lee WJ, Kim DW, Chung HY, Cho BC. Clinicopathological features of cutaneous malignant melanoma. *Korean J Dermatol* 2007;45:149-158

## Embedded Earring in a 19-year-old Female

Ear piercing is a common practice among children and adolescents especially in females. There are various complications associated with ear piercing, including local infection, bleeding, allergic reactions, keloid scar, sarcoid granulomas, lipomas, cyst formation, ear lobe deformity, organizing hematoma and systemic problems like hepatitis or staphylo-

coccal sepsis<sup>1</sup>. Although several reports have been made of embedded earring as a complication of ear piercing<sup>2-5</sup>, there is only one case report of an embedded earring within an earlobe keloid in Korea<sup>6</sup>. We herein report a case of a young female with an embedded earring, which was completely buried within the earlobe.



**Fig. 1.** Left earlobe showing small dimplings on anterior and posterior side.

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A 19-year-old female visited our dermatology clinic with a one-month history of discomfort in her left earlobe. Her ears were pierced in the previous month, and after having pain and swelling on the left earlobe at the site of piercing, she removed both earrings. She claimed that all the parts of the earrings were completely removed. On physical examination, there were small dimplings on both the anterior and posterior sides of the earlobes (Fig. 1), and we could palpate a pea-sized nodule on her left earlobe without any pain or itching sensation. A skin biopsy was performed under the clinical impressions of foreign body, epidermal cyst, and keloid. The procedure was done using a 4-mm punch biopsy and was approached from the posterior side of the earlobe. During the procedure, we found the back portion of an earring embedded within the left earlobe. The back of the earring was successfully removed without any complications (Fig. 2), and the wound was completely healed within a week. Nowadays in Korea, ear piercing is performed at a young age. Though there are few reports of an embedded earring in Korea, the risk of its occurrence might increase with the increasing trend of ear piercing. Various authors have suggested that the risk of embedded earring is related to inflammation following improper aseptic technique and insufficient training of personnel, and from ear piercing in children. Additionally, high pressure exerted to the earlobe may be responsible for embedded earrings<sup>3,5</sup>. To lower the risk of complications, the ears must be pierced

using a proper aseptic technique, and the pierced site should be cleansed daily with an antiseptic solution until the hole is completely epithelialized. Furthermore, if there are any symptoms suggesting inflammation like pain, swelling, discharge, or redness, the earring should be removed immediately<sup>1</sup>.

In our case, the patient was old enough to care for herself, and there was no pain, redness, or swelling at the time of her visit. This case highlights that earrings can be embedded even in adults without pain or signs of inflammation. Accordingly, the possibility of an embedded earring should be always considered when there is discomfort in the earlobe.

**Key Words:** Embedded earring, Ear piercing, Ear nodule

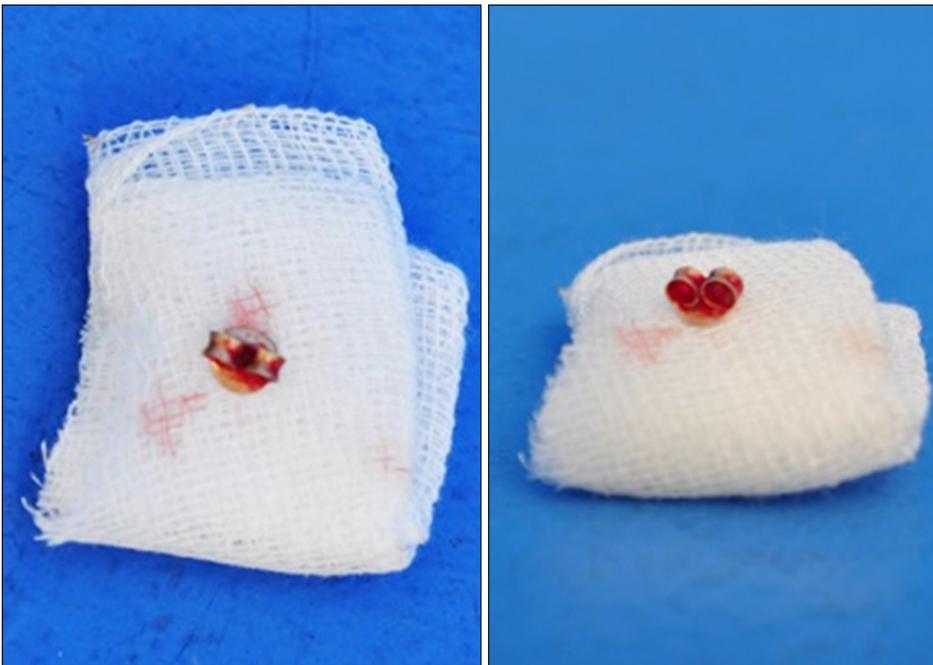
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## REFERENCES

1. Hendricks WM. Complications of ear piercing: treatment and prevention. *Cutis* 1991;48:386-94
2. Gronemeyer LL, et al. Embedded earring back mistaken for ear lobe keloid in an eight-year-old girl. *J Dtsch*



**Fig. 2.** The back portion of the earring which was removed from left earlobe.

Dermatol Ges 2014;12:813-4

3. Muntz HR, Pa CD, Asher BF. Embedded earrings: a complication of the ear-piercing gun. *Int J Pediatr Otorhinolaryngol* 1990;19:73-6
4. Saraf S. Ear nodules due to embedded earring backs. *Indian*

*J Dermatol Venereol Leprol* 2007;73:65

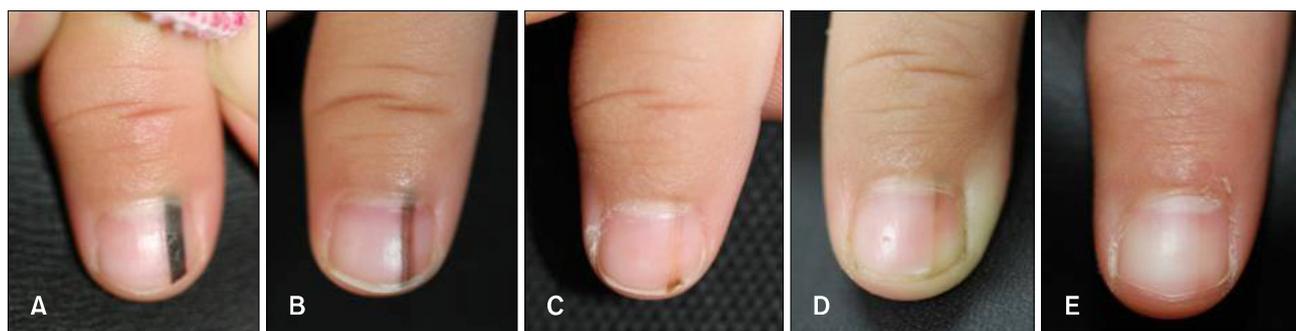
5. Timm N, Iyer S. Embedded earrings in children. *Pediatr Emerg Care* 2008;24:31-3
6. Park JH, Park TH, Chang CH. Earrings Embedded within Earlobe Keloids. *Arch Plast Surg* 2013;40:468-9

## Use of Q-switched Nd:YAG Laser in the Treatment of Longitudinal Melanonychia

Longitudinal melanonychia is a common cosmetic problem in dermatology<sup>1</sup>. Most stable longitudinal melanonychia is activated by nail matrix melanocytes; a normal number of melanocytes results in increased production of melanin, not a malignant melanoma<sup>2</sup>. Stable longitudinal melanonychia treatment involves a long-term period of follow-up and cosmetic problems. There have been no previous experiments performed to confirm the efficacy and safety of laser treatment for longitudinal melanonychia. Therefore, we evaluated the efficacy of a 1,064-nm quality-switched neodymium-doped yttrium aluminum garnet (QSNY) laser for treating longitudinal melanonychia.

The Institutional Review Board of Keimyung University School of Medicine approved this clinical study. Ten patients

(8 female and 2 male; mean age, 30.4; range, 22~55; Fitzpatrick skin type IV, except for 1 patient with type V) with single or multiple longitudinal melanonychia on the fingers or toes were enrolled in this study. Patients were treated twice (2 passes) during two to six sessions (with 1-month intervals) with the 1,064-nm Q-switched Nd:YAG laser (WON-COSJET TR<sup>®</sup>; Won Technology, Sungnam, Korea) on the proximal nail fold. The treatment settings were as follows: fluence, 7.0 J/cm<sup>2</sup>; pulse duration, 9.0 nano seconds; and spot size, 4 mm. Two dermatologists performed objective clinical assessments in a blinded fashion by comparing before-and-after photos in a non-chronological order using a physician's global assessment (PGA) scale (grades: poor [score 0], 0~25%=minimal improvement or steady state; fair



**Fig. 1.** Melanonychia on the right thumb nail before treatment (A), 6 month (B), 8 month (C), 10 month (D) and 12 month (E) after four sessions of QSNY treatment on proximal nail fold. The melanonychia completely disappeared after treatment without recurrence.

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