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## Multiple Epidermal Cysts as a Complication of Gold Acupuncture

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## Dear Editor:

A 58-year-old woman presented with multiple tiny papules having comedo-like openings on her face (Fig. 1A). Three years previously, she had received gold acupuncture with permanent needles for facial skin rejuvenation that was performed by an unlicensed acupuncturist. After the procedure, the acupuncture treatment site was swollen for 3 months. At the same site, multiple papules with a pungent odor appeared. Punch biopsies were performed for the lesions in the infraorbital and forehead areas to confirm the diagnosis of multiple epidermal cysts associated with gold acupuncture, and gold needles were detected from the lesions (Fig. 1B). Histopathological analysis revealed a cyst lined with stratified squamous epithelium containing a granular layer, and a cavity that was filled with laminated keratinous material (Fig. 2). Therefore, the diagnosis of multiple epidermal cysts associated with gold acupuncture was confirmed. The patient was treated with intralesional triamcinolone injections and 2% salicylic acid for the multiple epidermal cysts, which resulted in mild improvement of the lesions. A few larger epidermal cysts were removed via simple excision. However, most of the foul-smelling lesions remained, and the patient discontinued follow-up for personal reasons.

Acupuncture has recently attracted enormous interest in

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Asian countries, and has gained some degree of acceptance in Western medicine<sup>1</sup>. To potentiate the effects of simple acupuncture treatment, various stimulation methods such as electroacupuncture, ultrasound acupuncture, laser acupuncture, aqua-acupuncture, and implantation at acupoints have been developed over the last half of the century by combining new medical techniques<sup>2</sup>. Traditional Chinese acupuncture involves placing needles into the subcutaneous tissues along predefined meridians and then removing all the needles later. However, a unique type of acupuncture known as 'Hari' involves permanent placement of fine needles into the subcutaneous tissues<sup>3</sup>. These needles are made of gold, silver, or stainless steel, and may be placed

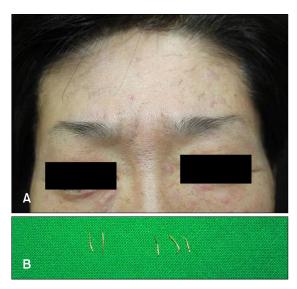
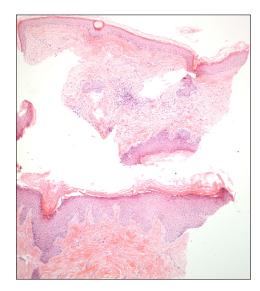


Fig. 1. (A) Facial lesions that developed 3 years after a gold acupuncture procedure. Multiple erythematous-based papules and nodules can be observed in the periorbital area. Numerous skin-colored papules and nodules with comedo-like openings having a foul odor can also be observed in the mid-upper face. (B) The gold needles extracted from the punch biopsy sites.



**Fig. 2.** Histopathological analysis of the right infraorbital lesion revealed a cyst lined with stratified squamous epithelium containing a granular layer, and a cavity that was filled with laminated keratinous material (H&E,  $\times$ 100).

anywhere in the body<sup>4</sup>. Acupuncture is also used for facial rejuvenation. Barrett<sup>5</sup> reported that facial rejuvenation is achieved by inserting acupuncture needles at different points. However, the mechanism of acupuncture for rejuvenation is not clear and its safety has not yet been proven. The adverse effects of acupuncture treatment include bleeding, hematoma, sweating, fainting, fever, and skin irritation<sup>1</sup>. However, there has been no description of an epidermal cyst caused by gold acupuncture involving the permanent placement of needles. Epidermal cysts are the most common cutaneous cysts, and are derived from the follicular infundibulum. Epidermal cysts may be primary, or they may arise from disrupted folli-

cular structures or traumatically implanted epithelium. They have been reported to develop after trauma, radiotherapy, and surgical procedures such as needle biopsy and lumbar puncture involving the use of needles with a stylet. To our knowledge, this is the first case of multiple epidermal cysts after permanent implantation of gold needles. Insertion of gold needles might cause disruption of the epithelium, leading to the occurrence of these cysts. Implanted gold needles could also induce epidermal cysts by injuring the follicular epithelium or blocking the follicular opening. We assume that despite their rare occurrence, epidermal cysts are a possible complication of this procedure. Only well-trained practitioners should perform acupuncture, and efforts should be made to minimize the risks related to this procedure. Informed consent for patient's photographs was obtained.

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