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BRIEF REPORT

A Case of Multiple Cutaneous Piloleiomyomas on the Neck

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Dear Editor:

A healthy 65-year-old woman with protruding papules on her neck which had been slowly expanding over the past 10 years visited Soonchunhyang University Seoul Hospital. At first, there were two nodules on the lower right side of her neck. Over the course of 10 years, the lesions spread slowly, and at the time of presentation, were found on the left side of her neck. None of her family members had similar lesions. The lesions were not associated with pain or any symptoms. Also, the patient had no notable past medical history. On physical examination, multiple erythematous, firm, non-tender papules of various sizes (3～7 mm) were observed on the right side of her neck (Fig. 1). A punch biopsy was conducted under local anesthesia. Microscopic examination of the sections stained with hematoxylin and eosin (H&E) showed poorly demarcated tumor intermingling with bundles of dermal collagen fibers. The tumor was composed of smooth muscle fibers that had straight, blunt-ended nuclei with no evidence of nuclear atypia. Neither mitotic activity nor pleomorphism were observed (Fig. 2A, B). Immunohistochemical examination revealed that the tumor cells were positive for actin (Fig. 2C) and desmin (Fig. 2D). Based on clinical and histological examination, the lesion on the patient's neck was diagnosed as multiple cutaneous piloleiomyomas. However, the patient declined surgical or medical intervention.

Multiple piloleiomyomata are known as the most common type of cutaneous leiomyoma[1]. The condition consists of multiple (on rare occasion, hundreds) of lesions that are small, slowly growing papules. They are typically painful or tender, particularly when compressed or exposed to a cold environment[2]. Women with multiple piloleiomyomas may also develop uterine leiomyomas. Renal cell cancer also develop in a subset of affected individuals. Hereditary leiomyomatosis and renal cell cancer is caused by germline mutation in the gene encoding fumarate hydratase on chromosome 1q42.3～43[3]. While piloleiomyoma is the most common type of cutaneous leiomyoma in Caucasians, angioleiomyoma is the most common type of cutaneous leiomyoma in Koreans. According to previous reports, cutaneous leiomyomas have been found only on

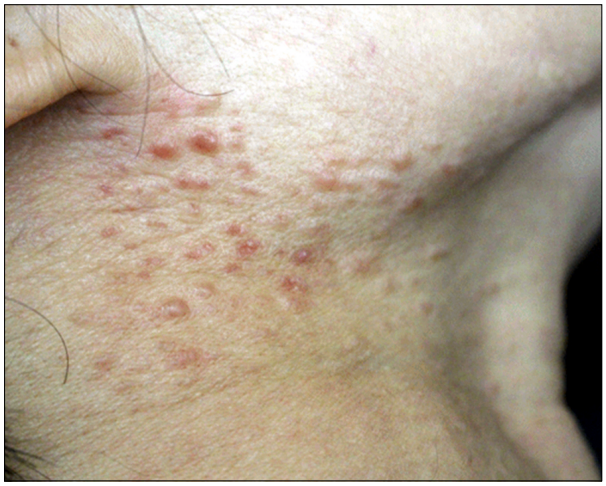

Fig. 1. Multiple erythematous, firm, non-tender papules of various sizes (3～7 mm) on the right side of the neck.

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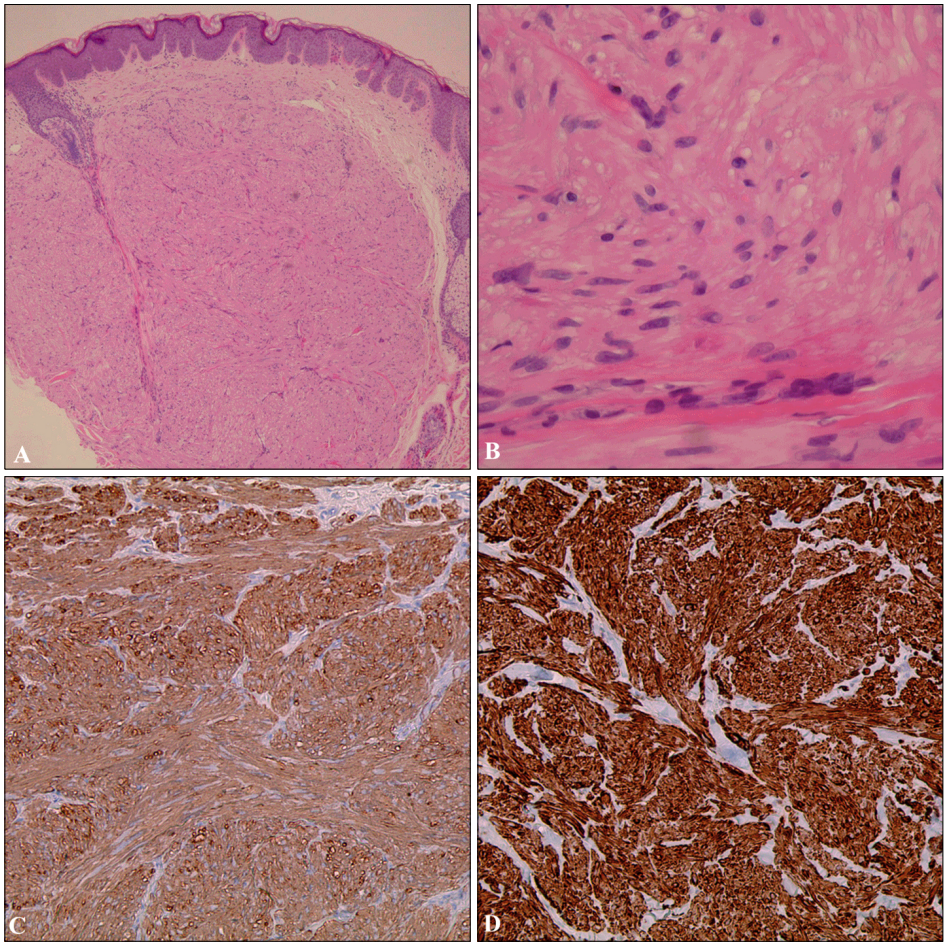

Fig. 2. (A) Dermal proliferation of ill-defined smooth muscle fibers surrounded by varying amounts of collagen fibers (H&E, ×40). (B) Dermal tumor composed of smooth muscle fibers with spindle-shaped, blunt-ended nuclei (H&E, ×400). (C) Tumor cells showing strong positively for smooth muscle actin (smooth muscle actin stain, ×200), and (D) desmin (desmin stain, ×200).

the trunk, lips, and limbs, and to date, there have been no reports on cutaneous leiomyomas on the neck in Korea. On biopsy specimens, piloleiomyomas appear to be composed of poorly circumscribed smooth muscle fibers that are located in the dermis and merge imperceptibly with the surrounding connective tissue[4]. The tumor is composed of uniform spindle-shaped cells showing interlacing bundle formation or irregular collections of elongated cells with brightly eosinophilic cellularity and blunt-ended or cigar-shaped nuclei. Piloleiomyomata may show very low mitotic activity, one or less mitotic figure/10 high power field (HPF). Tumor cells are usually positive for smooth muscle actin, calponin, desmin, and h-caldesmon. Piloleiomyomas may resemble other painful subcutaneous tumors including eccrine spiradenoma, neuroma, glomus tumor, angiolipoma, neurilemmoma, dermatofibroma. A differential diagnosis between cutaneous leiomyosarcoma and leiomyoma can be made depending on the presence of mitosis[5]. To summarize, this study reports a rare case of cutaneous leiomyomas that occurred on the neck of a middle-aged woman with no family medical history of the condition.

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CONFLICTS OF INTEREST

The authors have nothing to disclose.

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Hypopigmented Mycosis Fungoides Treated with 308 nm Excimer Laser

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Dear Editor:

Hypopigmented mycosis fungoides (HMF) is an atypical, rare clinical variant of MF characterized by hypopigmented to achromic patches alone or, more commonly, in combination with studding erythematous papules or plaques. The epidemiologic features that distinguish HMF from classical MF are related to its high prevalence among younger patients, such as children and adolescence, as well as patients with high skin phototypes (usually Fitzpatrick skin scale IV～V)[1]. Psoralen plus ultraviolet A (PUVA) was the main treatment used in the previously reported literature[2]. Reports on narrowband UVB (NBUVB) phototherapy have recently demonstrated this therapy to be a successful alternative for PUVA therapy[3].

A 10-year-old Korean boy presented to Pusan National University Hospital for evaluation of asymptomatic hypopigmented patches of skin and studded erythematous papules on the left upper back and flank (Fig. 1A). Wood light examination did not show pronounced attenuation. The histopathology results were compatible with MF. The microscopic description revealed epidermotrophism of haloed atypical lymphocytes (Fig. 1B). Additional studies on the rearrangement of the T cell receptor gamma gene showed monoclonality (Fig. 2). Considering limited lesional distribution in this patient and higher effectiveness of excimer laser than local NBUVB in focal vitiligo, we chose and performed 308 nm excimer laser therapy once a week for the diagnosis of HMF (stage IA). This treatment resulted in the clearance of the lesions and repigmentation of the hypopigmented areas after about 1 year (Fig. 1C). The mean fluence emitted was 340 mJ/cm^2, and the total cumulative dose was 17.7 J/cm^2.

The prognosis for HMF is usually good compared with that for classical MF. Infiltrative atypical CD8+ cells are postulated to play a role in preventing the usual patch stage disease from progressing to advanced plaque and tumour stages[1]. Also, the cytotoxic effect of CD8+ T lymphocytes are believed to influence melanocyte stability and melanogenesis resulting in hypopigmented patches clinically. In respect to treatment, HMF recurs frequently, even if there is a long period of complete remission. Although there were some reports of 308 nm excimer use for patch or plaque stages of MF[4], there has been no report of 308 nm excimer for HMF. 308 nm excimer laser

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