

LETTER TO THE EDITOR

Solitary Neurofibromas: Does an Uncommon Site Exist?

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To the editor,

Neurofibromas are relatively common benign tumors that are composed of neuromesenchymal cells, including Schwann cells, perineurial cells, fibroblast and mast cells. Multiple neurofibromas are found as part of neurofibromatosis type I (von Recklinghausen's disease) and neurofibromas are evenly distributed over the body surface. However, as a solitary lesion, a neurofibroma is not associated with neurofibromatosis type I and is common in young adults without a gender preference. Neurofibromas have been known to exhibit a predilection for the trunk and head compared to other body surfaces¹. However, in 1949 Herzog² first reported a plantar neurofibroma in a case of von Recklinghausen's disease. It has been thought that neurofibroma rarely occurs on the palm or sole of the hands or feet. Yamamoto et al.³ reported a plantar neurofibroma as a rare case that was not associated with neurofibromatosis type I. There has been a report of a solitary palmar neurofibroma as a rare case⁴. Other solitary neurofibromas in uncommon sites have been reported on the male breast⁵ and the subungual area⁶⁻¹⁰. In order to investigate the commonly affected sites of solitary neurofibromas, we reviewed the medical records of patients diagnosed with solitary neurofibroma between

January 2005 and June 2010. There were 8 patients with solitary neurofibroma and these patients were otherwise healthy. The mean age of the patients was 54-years and the disease duration of solitary neurofibromas ranged from several months to several decades (Table 1). None of the patients had a personal or familial history of neurofibromatosis type I or café-au-lait patches. The histopathologic examinations, including S100 stains, were done in all cases for making the differential diagnosis. The histopathologic examination showed unencapsulated tumors in the dermis and the tumors were composed of a fine fibrillary lattice of haphazardly arranged slender spindle cells that showed S100 positivity. As was previously known, there was no gender difference. Interestingly, tumors on the palm and sole, which are considered to be uncommon sites of solitary neurofibroma, were observed in each case (Fig. 1A, B). There was also a case of solitary neurofibroma on the lower lip (Fig. 1C). We believe that these results necessitate the investigation of predilection sites of neurofibromas.

A previous report evaluated the electron microscopic findings of a solitary subungual neurofibroma, and the electron microscopic findings of a solitary neurofibroma on an exceptional location were in no way inconsistent with those of a neurofibroma on the commonly involved sites⁶. The histologic findings of our patients were also typical for neurofibroma regardless of the body locations

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Table 1. Gender, age, disease duration and locations of solitary neurofibromas (2005~2010)

Case	Gender	Age	Disease duration	Location
1	F	57	3~4 mo	Left breast
2	M	54	30 yr	Right ankle
3	M	63	3 mo	Right elbow
4	F	63	3~4 yr	Right sole
5	M	53	5 yr	Anterior chest wall
6	F	65	5 yr	Lower back
7	F	33	5~6 yr	Left palm

F: female, M: male.

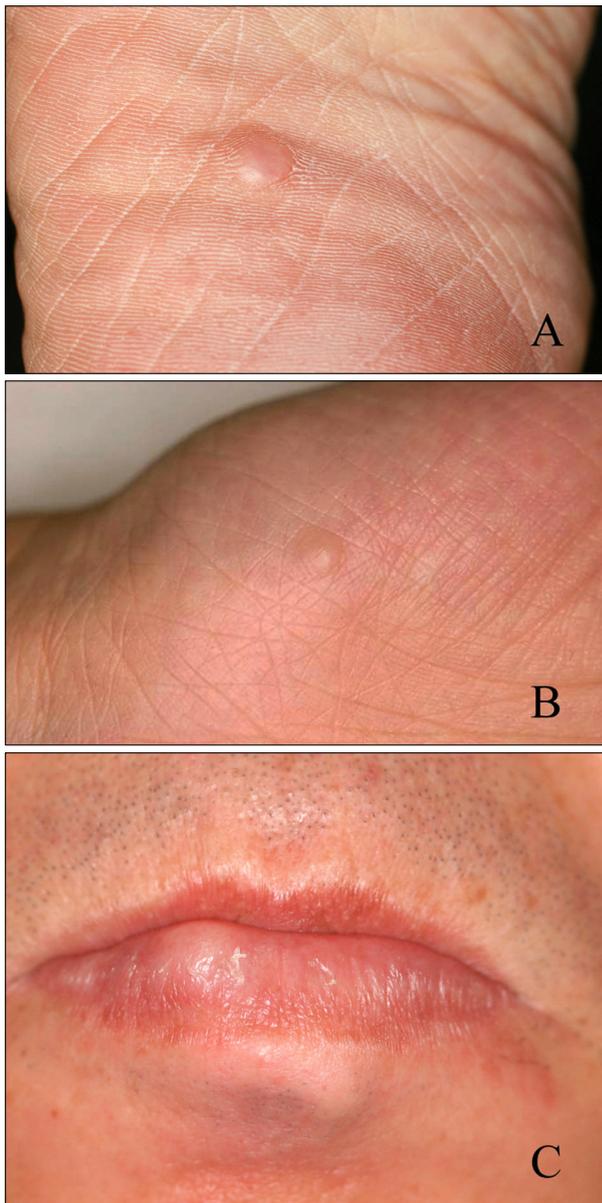


Fig. 1. (A) A solitary, dome-shaped papule on the right sole in case No. 4. (B) A 0.5×0.5 cm sized, soft, dome-shaped papule on the left palm in case No. 7. (C) An obliquely arranged, 1×3 cm sized, rubbery nodule on the lower lip in case No. 8.

of the tumors. Although several cases of solitary neurofibromas on uncommon sites have been reported, we concluded that neither a predilection site of neurofibroma nor an uncommon site exists for solitary neurofibromas. In our study, the mean age of patients with a solitary neurofibroma (54-years-old) was older than the previously reported age of young adults¹. The pathogenesis of isolated solitary neurofibromas is still unclear and further studies on solitary neurofibroma with a larger number of cases are needed.

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