Atypical melanocytic nevi with segmental distribution resembling seborrheic keratoses

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INTRODUCTION
Segmentally arranged lesions cover a large cutaneous area or body segment. A few publications have reported segmentally distributed keratinocytic lesions that resembled seborrheic keratoses (SK)1,2 or SK-like epidermal nevi.3 Previous articles on the subject have described a possible association with non-melanoma skin cancer,3,7 but lesions with melanocytic proliferations have not been reported. Some previous reports have described atypical melanocytic lesions with a segmental distribution5,6 or an agminated pattern,7,8 none of which, however, were characterized by a SK-like appearance.

In this article, we report a case of atypical melanocytic nevi with a segmental distribution and SK-like clinical and histopathologic features.

CASE REPORT
A healthy 40-year-old woman presented with >50 flat, verrucous, lightly tanned papules clustered on normally pigmented skin (Fig 1). Lesions measuring about 0.2 to 1.1 cm each were located distally on her left thigh. The lesions had been present since her teenage years and had stabilized in number and size some years prior to her visit. She also had a few similar papules on the posterior part of the left thigh and proximal part of the calf, but not elsewhere. There were 10 to 15 typical nevi distributed evenly on her trunk and limbs. The patient reported no symptoms and had not noticed any changes in her lesions. There was no other significant personal medical history or family history of melanoma or atypical nevi. Differential diagnosis included SK, common warts, and agminated Spitz nevi.

Histologic examination of a 4-mm punch skin biopsy showed melanocytic proliferation with mild-to-moderate architectural disorder, severe cytologic atypia, and acanthosis of the epidermis. The findings were compatible with a high-grade atypical nevus with SK changes (Fig 2). The specimen did not exhibit BRAFV600E mutation. To better characterize these segmental lesions, 2 other 4-mm punch biopsies were performed on 2 different lesions on the left thigh. Histologic examination showed 2 compound melanocytic nevi with mild atypia and SK changes (Fig 3). With the patient’s consent, we decided not to re-excise the first lesion that had been biopsied, since the clinical appearance was reassuring and similar to the other segmental lesions. The patient has remained healthy, and we observed no cutaneous changes after 4 months of follow-up.

DISCUSSION
Segmental epidermal nevi with SK-like appearance and segmental SK have been described. Mabuchi et al.1 reported SK in an S-shaped line, which appeared on the left side of the trunk and arm of an adult male. Darjani and Ramezanpour2 presented the case of a 16-year-old female with segmentally arranged SK on the abdomen. Some authors have described an association with non-melanoma skin cancers. Livingstone et al. published the case of an elderly woman with an unusual epidermal nevus characterized by premalignant changes and squamous cell carcinoma. FGFR3 and PIK3CA hotspot mutations were identified in biopsies from various lesions.3,4 Rodriguez and Festa Neto reported...
segmentally arranged lesions resembling skin tags or SK, which had appeared on the left side of a woman’s body when she was 8 years old. Histologic examination of 6 lesions confirmed the diagnosis of fibroepithelioma of Pinkus with combined features of SK. Only one lesion was a superficial basal cell
cancer. We found no mention of melanocytic proliferation in the articles reviewed.

Cases exhibiting atypical lesions of melanocytic origin and a segmental distribution were identified in the literature. Luo et al. reported a case of a 58-year-old man, who developed numerous grouped nevi on his right leg shortly after birth. Lesions were clinically consistent with junctional, compound or intradermal nevi. Histopathologic evaluation of clinically atypical lesions mainly showed intradermal nevi with congenital patterns with BRAFV600E concordance. None of the 11 lesions analyzed had features of melanoma or melanocytic atypia. Zalaudek et al. described the case of a 30-year-old woman with approximately 70 clustered melanocytic skin lesions on her left thigh and 20 additional lesions loosely distributed over the rest of the leg. Histopathologic analysis of an enlarging lesion revealed a melanoma with Reed nevi microscopic features (Breslow depth, 0.6 mm). In a review article, Torchia (2015) extracted 181 cases of segmental and agminated melanocytic nevi from the literature. Eleven patients had atypical melanocytic nevi, and 4 cases developed into malignant melanoma. None of the articles reviewed by Torchia reported SK-like features.

Agminated melanocytic nevi have been described in association with melanoma in situ, and common and atypical nevi. Again, no SK-like features were reported in the articles reviewed. Of note, some authors have argued that agminated melanocytic nevi should be distinguished from other forms of segmental distribution without definite clustering.

In this article, we report a case of atypical melanocytic nevi with a segmental distribution on the left thigh of a young female with no relevant medical history. These segmental lesions were lightly tanned and presented with an SK-like appearance clinically and histologically.

Clinicians should be aware of this rare clinical presentation and recognize that segmental SK-like lesions may be associated with underlying melanocytic proliferation.

Conflicts of interest
None disclosed.

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