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Case Presentation

Divided or kissing nevus of the penis

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Abstract

The divided or kissing nevus is an unusual congenital melanocytic nevus. By definition, these nevi appear on skin that separates during embryological development. These lesions have been reported on the eyelids, fingers, and rarely the penis. We describe an 18 year old uncircumcised male who presented with an asymptomatic darkly pigmented patch on the glans penis. He reported that the lesion had appeared recently and was enlarging. Physical examination revealed a second symmetric lesion on the adjacent foreskin. Punch biopsy of the lesion on the glans penis showed abundant intradermal melanocytes devoid of mitoses and atypia, consistent with an intradermal melanocytic nevus. Based on the benign histologic nature and clinical exam, the lesion was diagnosed as a divided or kissing nevus of the penis. Proposed treatments include excision and grafting as well as Nd:YAG laser therapy. However, these patients may be safely monitored with regular follow-up skin examinations because there is minimal risk of malignant transformation.

Keywords: divided nevus, kissing nevus, congenital melanocytic nevus

Introduction

Divided nevi are congenital melanocytic lesions that develop on skin that cleaves during embryogenesis, such as the eyelids. Penile divided nevi are exceedingly uncommon. These generally present as dark-colored macules or patches that appear on the glans penis and adjacent foreskin. The coronal sulcus is spared of pigment and represents a plane of mirror symmetry. To date, only 13 cases of divided nevi of the penis have been reported [1, 2, 3, 4, 5, 6, 7, 8, 9]. Proposed management plans range from complete excision with and without grafting, laser ablation, and close observation.

Case Report

An 18-year-old uncircumcised male presented for evaluation of an asymptomatic darkly pigmented patch on his penis. He reported the lesion spontaneously appeared a few weeks prior and felt it was enlarging. He denied any pain with urination or ejaculation. He admited to one sexual partner within the last year and no sexual activity within the last three months. He had no personal or family history of melanoma.

Figure 1. Pigmented patches on glans penis and foreskin demonstrating mirror symmetry.

On examination, there is a 1.5 cm by 1.0 cm darkly pigmented patch on the glans penis. With retraction of the foreskin, a second, similarly pigmented patch is noted on the opposing surface. The two lesions appear to have mirror symmetry with respect to the coronal sulcus. Dermatoscopic evaluation demonstrates deep black pigmentation with well-defined borders without increased vascularity or white veils.

A punch biopsy of the lesion on the glans penis was performed. Histopathologic examination demonstrates an intradermal proliferation of small bland appearing melanocytes. The dermis appears heavily pigmented, with numerous dermal melanophages containing melanin. No significant cytologic atypia is noted. Based upon these findings alone, the single lesion was diagnosed as an intradermal melanocytic lesion. In combination with the physical examination this is most consistent with a divided or “kissing” nevus of the penis.

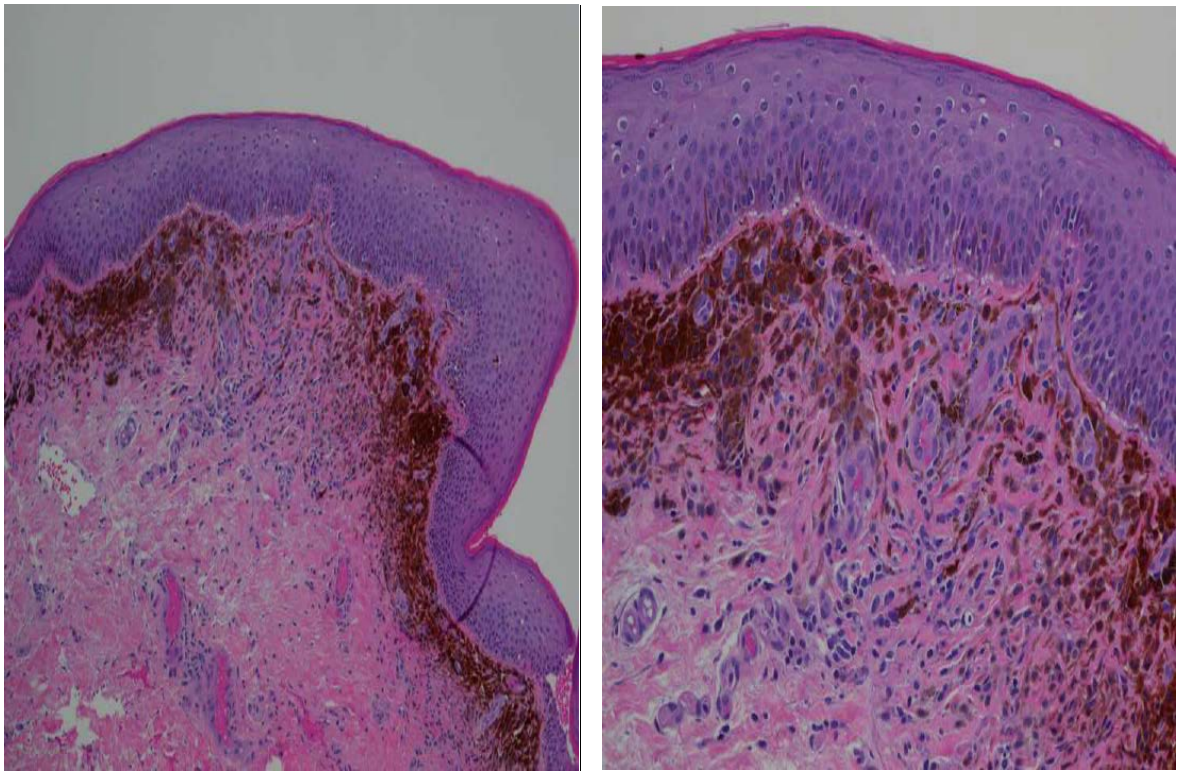

Figure 2. Intradermal proliferation of bland appearing melanocytes with heavily pigmented dermal melanophages.

Figure 3. Dermal nests of melanocytes with no significant cytologic atypia.

Discussion

First described in 1908, the term divided or "kissing" nevus initially referred to a congenital melanocytic lesion located on the eyelids. Appearing as a single entity with the eyelids closed and as separate nevi with the eyelids open, a few variants of these unusual lesions have also been reported on the fingers and penis. By definition, the nevi develop on adjacent body parts that separate during embryogenesis. A penile location for the divided nevus is rare; a total of 13 cases have been reported previously [1, 2, 3, 4, 5, 6, 7, 8, 9].

Possible embryologic mechanisms for the development of penile divided nevi have been suggested by Desruelles et al [1] and Kono et al. [3]. There is a consensus that the nevi arise between gestational weeks 11 and 14, delineated by the appearance of the coronal sulcus and final presentation of the glans, prepuce, and spongy urethra [1,3]. However, these theories contrast as to whether the melanoblasts migrate to the lesion site before [1] or after [3] division of the epithelial preputial placode, which produces the glans and prepuce during week 12.

Malignant melanoma comprises fewer than 2% of primary penile malignancies. Divided nevi of the penis are generally benign lesions and of all previously reported cases only one has been described as melanoma [5]. Thus, is it recommended that aesthetics and functionality are the primary considerations in the treatment plan [9]. Excision followed by grafting using the patient's foreskin has yielded positive results with little scarring and no loss of sensation [7]. Nd:YAG laser therapy has also been suggested to achieve desired cosmesis [9]. As the risk of malignant transformation is low, conservative management with regular follow-up is also a viable option [8].

On initial presentation, our patient had reported the lesion had spontaneously appeared and was enlarging, unaware of the symmetric lesion on the foreskin. A biopsy was performed owing to this historical account in order to rule out malignancy. The benign findings on histopathology were reassuring and the patient is being followed with routine clinical exams.

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