

Blue Nevus: A Rare Pigmented Lesion of Sinonasal Tract

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Abstract

Blue nevi are uncommon lesions of skin and mucosa. Most of these occur in skin. Only occasionally they are seen to involve mucosa. Sinonasal mucosa is one of the rarest of the sites for these lesions to occur. Only four such cases have been reported in international literature till date. We report here one such case which we came across.

Keywords: Sinonasal, melanocyte, blue nevus.

CASE REPORT

A 21 years old female patient came to our department with complaint of nasal obstruction and headache since ten years. There was no significant history suggestive of allergic rhinosinusitis. On anterior rhinoscopy, patient had significant deviation of nasal septum to right side with a posterior spur touching the lateral wall. Patient was taken up for endoscopic septoplasty and during the surgery a bluish pigmented lesion was found on left middle turbinate. The lesions was excised with a part of the turbinate and sent for histopathology.

Microscopy showed a vaguely nodular collection of poorly melanized spindled melanocytes and deeply pigmented dendritic melanocytes within thickened collagen bundles (Fig. 1). No mitotic figures were present. Overall features were suggestive of a common blue nevus.

Follow-up at 9 months showed no recurrence on endoscopic evaluation.

DISCUSSION

Two clinically recognized variants of blue nevus exist: the common blue nevus and the cellular blue nevus.¹

Tièche, a student of Jadassohn, first described the common blue nevus in 1906. Earlier authors described similar lesions as chromatophoroma and melanofibroma. The common blue nevus is a flat to slightly elevated, smooth surfaced macule, papule, or plaque that is gray-blue to bluish black in color. Lesions are usually solitary and found on the head and the neck, the sacral region, and the dorsal aspects of the hands and feet.

The cellular blue nevus was first described as a variant of melanoma. Later, it was classified as a variant of blue

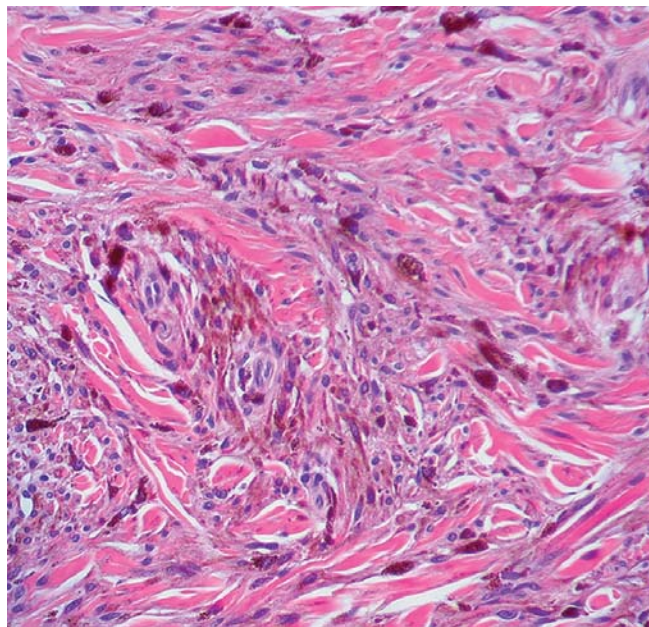


Figure 1: Microscopic picture showing increased melanin pigment in dendritic melanocytes

nevus. Controversy still arises over the precise distinction of atypical cellular blue nevus from melanoma. The cellular blue nevus is a less common lesion but often clinically similar to the common blue nevus. These lesions tend to be large, usually measuring 1-3 cm in diameter. Lesions are elevated, smooth-surfaced papules or plaques that are gray-blue to bluish black in color. Lesions are usually solitary and found on the buttocks, the sacral region, and occasionally on the dorsal aspects of the hands and the feet.

Although definitive experimental evidence is lacking, blue nevi are believed to represent dermal arrest in embryonal migration of neural crest melanocytes that fail to reach the epidermis. Collections of melanocytes can be found in fetal dermis, but they involute during later gestation.

The clinically noted blue color is due to the depth of melanin in the epidermis and the Tyndall effect. The Tyndall effect is the preferential absorption of long wavelengths of light by melanin and the scattering of shorter wavelengths, representing the blue end of the spectrum, by collagen bundles.

Blue nevi of the sinonasal mucosa are extremely rare. To date, only 4 such cases have been reported in international medical literature. It was first reported from Belgium in a 28-year-old woman with sinusitis who underwent a Caldwell-Luc operation.² A blue nevus was found in the resected maxillary sinus mucosa incidentally during pathologic examination. No recurrence was seen at 13 months follow-up. The second case was from Italy in a 40 years old man with chronic otitis media.³ On anterior rhinoscopy, an intensely pigmented spot, 2 mm in size, was found incidentally on the nasal mucosa. The lesion was excised and histopathology confirmed it to be a blue nevus. Later, two cases were reported from Taiwan, where they incidentally found pigmented lesions on the inferior turbinate in one case and in the maxillary sinus mucosa in the other case, during surgery for sinusitis.⁴ Postoperative histopathology confirmed them to be blue nevi. The first case had no recurrence at 20 years follow-up.

A sinonasal blue nevus is a small lesion often found incidentally during examination or on histopathology. However, for definite diagnosis, biopsy is essential to differentiate it from malignant melanoma. Usually sinonasal malignant melanomas are larger tumors with symptoms like nasal obstruction or epistaxis. On histopathology, malignant melanomas are characterized by tumor cells with pleomorphic nuclei, prominent nucleoli, and frequent mitotic figures, whereas blue nevi are composed of cells with uniform oval nuclei, inconspicuous nucleoli, and few, if any, mitotic figures.⁵

Blue nevi have been seen to be associated with various syndromes like Carney complex⁶ and familial multiple blue nevi.⁷ Carney complex is an autosomal-dominant syndrome,

which consists of cardiac and cutaneous myxomas, spotty skin pigmentation (including lentiginosities and blue nevi), endocrine overactivity (including Cushing syndrome, acromegaly, and sexual precocity), and schwannomas. In familial multiple blue nevi, multiple lesions are present on the head and the neck, the trunk, the extremities, and the sclera from birth. This condition is not associated with other cutaneous or systemic findings. It is inherited in autosomal dominant fashion. However all the cases of sinonasal blue nevi reported till date, have not been found to be associated with these features.

Blue nevi are considered to be benign, however transformation into malignant melanoma has been rarely found in cutaneous blue nevi. But this transformation has not been seen in sinonasal blue nevi. Still, it is advisable that any such blue nevi should be excised. Although none of the reported cases of sinonasal blue nevi had recurrence, with the limited number of cases reported to date and the difficulty in self-detection of any recurrent disease by a patient, complete excision with follow-up should be the treatment of choice.

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