

Oral Blue Nevus: Case Report

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Abstract: Aim of this research is the description of a case of palatal blue nevus and the diagnostic and therapeutic strategies to adopt when this oral lesion occurs. Nevi are benign proliferations of nevus cells either in the epithelium or in the subepithelial stroma. Blue nevus of the oral mucosa is a rare lesion. The oral blue nevi are asymptomatic and have no malignant potential. More importantly blue nevus had to be differentiated from malignant melanoma. Because is difficult to distinguish oral melanocytic nevi from melanoma we believe that any oral lesion in question should be excised and sent for histopathologic evaluation.

Key words: Nevus, blue nevus, oral pigmentation, oral lesions, histopathologic

INTRODUCTION

The oral melanocytic nevus is a benign and focal proliferation of nevus cells either in the epithelium or in the subepithelial stroma, that can be congenital or acquired. Nevus cells must be distinguished from the melanocytes in fact although, they have similar nuclear morphologic features, their cytoplasm is ovoid, rounded or spindle shaped.

Blue nevus is described as “an acquired, firm papule, nodule or plaque-like lesion of blue or blue grey coloration, occurring on the skin and mucous membranes” (Sahin *et al.*, 2001). The exact etiology and pathogenesis of oral nevus are still understood because most of the informations found in the literature being derived from some case report studies (Ferreira *et al.*, 2015).

Blue nevus of the oral mucosa is a rare lesion (Hasse *et al.*, 1978; Fistarol and Itin, 2007). The palate was the predominant location for blue nevi (Buchner *et al.*, 2004; Ferreira *et al.*, 2015). Histological examination shows a stromal melanocytic lesion composed of dendritic melanocytes in the subepithelial stroma tissue (Lam *et al.*, 2001).

Blue nevi can be classified as common, cellular or atypical blue nevi and malignant blue nevi (Popovic *et al.*, 2004). Common blue naevus is usually small, with an average diameter up to 2 mm (Hoos *et al.*, 2000). Microscopically common blue naevus is composed of

elongated, bipolar spindle-shaped melanocytes with long dendritic processes that contain melanin (Izquierdo *et al.*, 2001; Pinto *et al.*, 2003).

Cellular blue naevi are usually larger than the common blue naevi (Sahin *et al.*, 2001). These lesions in addition to the pigmented dendritic spindle melanocytes, can contain large oval to round melanocytes, containing little or no melanin (Izquierdo *et al.*, 2001; Ferrara *et al.*, 2002; Pinto *et al.*, 2003).

Malignant blue nevi are rare. The aim of this work is the description of a case of palatal blue nevus and the diagnostic and therapeutic strategies to adopt when this oral lesion occurs.

MATERIALS AND METHODS

Case report: A 30 year old female was referred to Multidisciplinary Department of Medical-Surgical and Dental Specialties, School of Dental Medicine, Second University of Naples, by her local practitioner for evaluation and management of a discoloration on the hard palate of his mouth. She first noticed the lesion, described as a blue black nodule on her palate approximately 5 years before presenting to us.

Patient denied any other symptoms but reported that the lesion had changed in colour. She was very concerned about having “malignant melanoma.” Her family history was not significant for cancer. The patient’s



Fig. 1: Blue-black nodule of the left posterior hard palate



Fig. 3: Lesion excised



Fig. 2: Excision of lesion



Fig. 4: Palatal mucosa healing after 7 days

medical history was unremarkable. Intraoral examination revealed a 2.2×3.1 mm blue black nodule of the left posterior hard palate (Fig. 1). The lesion was firm, sessile mass in the left buccal mucosa. No additional abnormalities were noted upon intra- or extraoral examination. The clinical impression was that of a blue nevus.

An excisional biopsy of the lesion was performed under local anaesthesia using mepivacaine at 2% with a vasoconstrictor. When this lesion was completely excised, it was submitted for histopathologic evaluation (Fig. 2 and 3). After obtaining a suitable hemostasis a silk suture was performed with disconnected stitches. Furthermore, the patient was advised to use a Chlorhexidine 2% gel, twice a day in the sutured area. In postoperative follow-up, a week later, healing was verified and suture removed (Fig. 4).

Biopsy fragments from the lesion were fixed and processed according to standard techniques for light microscopy. Histopathologic evaluation of the tissue sections revealed a complex of cell elongated and spindle-shaped that contain melanin.

Immuno histochemistry evaluation revealed a complex of cell positive to anti-S-100 and anti-HMB45 anti-bodies.

Both histopathologic and immuno histochemistry evaluation of the tissue sections resulted in the final diagnosis of oral common blue nevus. The differential diagnosis of a blue nevus in the oral cavity includes a blue-black macule or papule (focal benign melanosis) smoker's melanosis, physiologic pigmentation, amalgam tattoo, lentigo, hemangioma or another vascular anomaly and mucocele.

More importantly blue nevus had to be differentiated from malignant melanoma. These lesions were easily excluded after clinical or pathologic examination.

RESULTS AND DISCUSSION

Melanocytic nevi are most common in the skin than on the oral mucosa (Pinto *et al.*, 2003). Oral blue naevus is an uncommon pigmented lesion of melanocytes. By convention blue nevi can be classified according to cellularity, atypias and mitoses as common, cellular or

atypical blue nevi (Hasse *et al.*, 1978; Sahin *et al.*, 2001; Popovic *et al.*, 2004; Fistarol and Itin, 2007). A third variant named as malignant blue nevi is very rare (Popovic *et al.*, 2004).

According to Ferreira *et al.* (2015) found that oral blue nevi represented the 23% of the total number of biopsies analysed (Ferreira *et al.*, 2015). Common blue nevi are more common in the oral cavity than other blue nevi

The differential diagnosis of a blue nevus in the oral cavity includes a blue-black macule or papule (focal benign melanosis) smoker's melanosis, physiologic pigmentation, amalgam tattoo, lentigo, hemangioma or another vascular anomaly and mucocoele. More importantly blue nevus had to be differentiated from malignant melanoma. These lesions were easily excluded after clinical or pathologic examination.

The oral common blue nevi are asymptomatic and have no malignant potential. The importance of this lesions is due to their confusion with malignant melanoma. This is especially true for lesions of the palate where melanomas are most prevalent (Buchner *et al.*, 2004).

Because of this difficult to distinguish blue nevi from melanoma any lesion in question should be excised and sent for histopathologic evaluation. According to Ferrara *et al.* (2002) immunohistochemistry may be a valuable tool in the histopathologic diagnosis of blue nevi because anti-S-100 and anti-HMB45 antibodies highlight the striking dendritic prolongations of junctional melanocytes, as well as their continuity with the dermal proliferation.

Both in the histopathological and immuno histochemistry examination of our case we found no malignant changes in the lesion.

CONCLUSION

It is difficult to distinguish oral melanocytic nevi from melanoma we believe that any oral lesion in question should be excised and sent for histopathologic evaluation.

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