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Case Report

Xanthoma of the larynx: a rare mucosal presentation

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ABSTRACT

Xanthoma is a reactive condition of localized collection of lipid laden histiocytes with common presentation in skin, subcutis or tendon. Musoca associated xanthomatous lesions are rare presentation. These lesions may be asymptomatic or have symptoms like throat discomfort, hoarseness. These lesions are mostly associated with dyslipidemia. Due to rarity of its presentation it can be endoscopically mistaken for polyp or malignancy. Hereby, we report a case of 42-year-old male with new onset diabetes type II. He presented to ENT OPD with change in voice for few months. He underwent nasopharyngolarngoscopy and was clinically diagnosed as vocal cord polyp. Microlaryngeal excision was done and sent for histopathology. Histopathology revealed polypoid squamous epithelium covered lesion with sheets of foamy macrophages in the stroma thus confirmed the diagnosis of xanthoma, larynx. Mucosa associated xanthoma are rare presentations and may indicate a possibility of underlying metabolic disease.

Keywords: Xanthoma, Larynx, Histopathology

INTRODUCTION

Xanthoma is a localized collection of fat/lipid-laden histiocytes.[1] It represents a reactive histiocytic proliferation associated with primary or secondary hyperlipoproteinemias or even normolipemic state.[1]

Skin, subcutis or tendon are the common locations for xanthoma. Whereas mucosa associated xanthomas are very infrequent with limited number of published literatures.[2]

Laryngeal involvement by xanthoma is rare entity with limited literatures.[2-4] They are often, but not always, a consequence of hyperlipidaemia and are sometimes indicative of specific lipoprotein disorders.[5]

Laryngeal involvement can produce symptoms like throat discomfort, hoarseness and may require surgical treatment.[6]

CASE REPORT

We present a case of 42-year-old male who came to ENT OPD with complain of change in voice for 3-months duration. He was newly diagnosed case of diabetes mellitus type II and was under medication for around a month. All other routine laboratory investigations including lipid profile was in normal range. Nasopharyngolatngoscopy was done, which revealed a pinkish polypoid lesion on left vocal cord. Microlaryngoscopic surgery (MLS) was done for excision of lesion and was sent for histopathological examination with clinical diagnosis of left vocal cord polyp. On gross examination a mucosa covered lesion measuring 0.5×0.5 cm was noted. Histopathology revealed polypoid lesion lined by stratified squamous epithelium with stroma showing collection of foamy histiocytes (Figures 1 and 2). Prominent vasculature was also noted in few island of foam cells. Fibrous component, papillary projections or

atypia was not identified. Hence a histopathological diagnosis of laryngeal xanthoma was made.

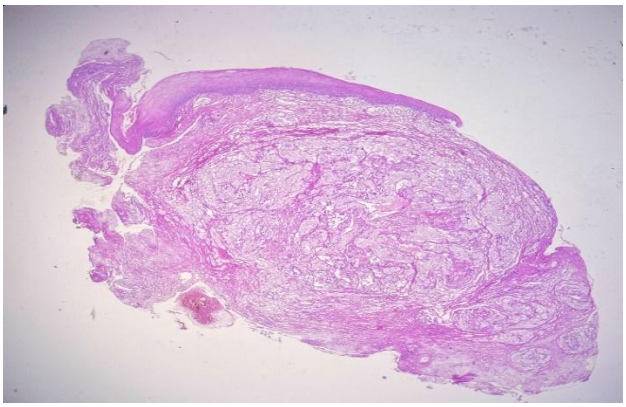

Figure 1: H & E (10X): polypoid lesion composed of foamy cells covered up by stratified squamous epithelium.

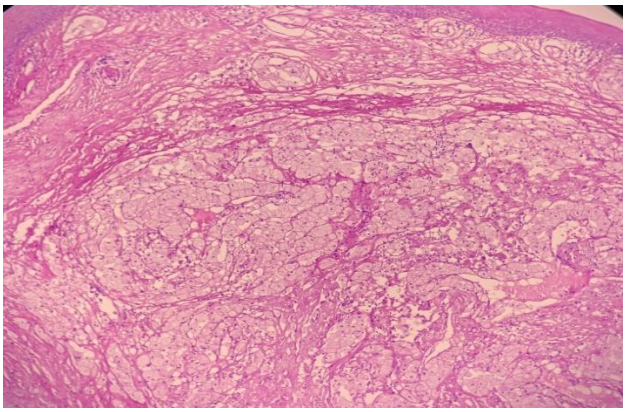

Figure 2: H & E (40X): foamy histiocytes with overlying squamous epithelium.

DISCUSSION

Most common polypoid lesion affecting the larynx is the laryngeal or vocal cord polyp.[2] Laryngeal lesions composed of histiocytes include verruciform xanthoma, xanthoma disseminatum (XD) involving the larynx and xanthoma or fibrous histiocytoma confined to larynx.[2]

Xanthoma is a reactive histiocytic proliferation rather than a neoplastic entity. They are most often associated with abnormality in lipid metabolism, becoming an important clinical manifestation of dyslipidemia. Less commonly xanthomas may occur in normolipemic people and are considered as a result of local cell dysfunction affecting lipid metabolism.[1]

Cutaneous xanthomas are common form of xanthoma and classified, according to their gross appearance and clinical presentation as eruptive, tendinous, tuberous, planar or disseminated.[3]

The classic histological finding of a xanthoma is a well-circumscribed nodular collection of foamy histiocytes having bland nuclei, small inconspicuous nucleoli and abundant vacuolated cytoplasm. Sometimes, cholesterol clefts, fibrosis, and mild inflammation are noted as well.[1,3]

Clinical differential diagnosis of mucosal xanthoma could be xanthoma disseminatum or verruciform xanthoma.[4]

Xanthoma disseminatum is a rare non-familial normolipemic non-Langerhans cell histiocytosis and was recognized as a separate disease entity in 1938.[7]

The classical triad of xanthoma disseminatum consist of cutaneous xanthomas, mucosal xanthomas, and diabetes insipidus.[8] In xanthoma disseminatum, the skin is always involved and xanthomas are also present in other organs as well.[9]

Whereas in our case there were no xanthomatous lesion elsewhere in skin hence possibility of xanthoma disseminatum was ruled out.

Verruciform xanthoma is an uncommon lesion occurring in the oral cavity, mainly gingiva. Histology reveals papillary or verrucous surface squamous epithelium with xanthoma cells present in the connective tissue papillae between the epithelial rete ridges.[10,11]

In given case there were no papillary projection on histology so possibility of verruciform xanthoma was excluded.

Spindle cells, storiform growth pattern or multinucleated giant cells are noted in fibrous histiocytoma which were not present in our case thus a diagnosis of fibrous histiocytomas is not assigned.[12]

The pathophysiology of xanthomas is due to metabolic breakdown of lipoproteins. Apart from hypercholesterolemia other systemic metabolic diseases such as diabetes mellitus, hypothyroidism or nephrotic syndromes could also result in xanthoma.[5]

All patients with hyperlipidemia or hypercholesterolemia do not develop xanthomas. But the presence of xanthomatous lesions can serve as an important clinical indicator of these metabolic states.[13]

In our case, patient was newly diagnosed case of diabetes mellitus type II and was on oral metformin 500 mg BD. His present lipid profile was within normal range. New onset diabetes could be a linking factor for development of xanthoma in our case. As diabetes mellitus type II could lead to dyslipidemia as well.[14]

Presence of solitary laryngeal xanthoma in a diabetic patient was reported by Vera et al.[15]

Similarly, a case of xanthoma disseminatum associated with diabetes mellitus was explained by Balasaraswathy et al.[6]

CONCLUSION

Mucosa associated xanthoma are one of the rare presentation and may represent an underlying metabolic disease associated with abnormality in lipid metabolism.

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