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Neurofibroma Arising from Inferior Alveolar Nerve

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1. SHORT COMMUNICATION

A 32-year-old man was referred to the oral surgery clinic by a dentist to assess 'heaviness' with his right lower posterior molars. The patient had attended the dentist thinking that he required a filling in those teeth. The patient provided a current orthopantomogram (OPG).

The patient's medical history revealed that he is a known case of von Recklinghausen disease (NF1). He is an index case in the family and currently under care of a neurosurgeon. He was a non-smoker and worked as a patient transport officer in the hospital and was otherwise fit and well. Past history revealed excision of NF1 lesion from his upper lip 10 years ago.

On clinical examination, there was normal sensation of the right lower lip. The mandibular teeth were erupted in normal occlusion, and there was no pain or mobility with the teeth and oral hygiene was fair. There were no significant mucosal lesions other than several sub mucosal thickenings consistent with plexiform neurofibromas in the oral mucosa.

The OPG showed a large lytic lesion 16 mm × 7 mm × 7mm, associated with the right lower second and third molars involving inferior dental canal (Figure 1). A CT dentascan confirmed lytic lesion arising from the inferior alveolar canal (Figure 2).

A clinical diagnosis of most likely a neurofibroma arising from the inferior alveolar nerve was made. The Patient was offered the option of having an incisional biopsy to confirm the diagnosis. Having had a lesion removed from upper lip ten years back confirmed as a plexiform neurofibroma and being a confirmed case of neurofibromatosis NF1, the patient declined biopsy and decided to be observed.

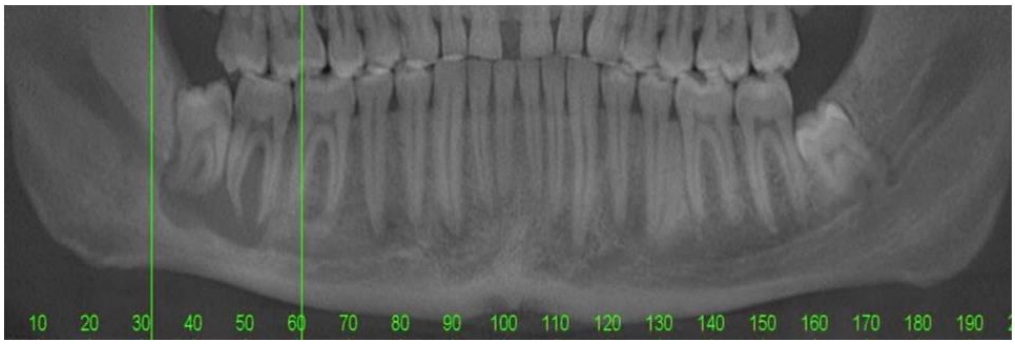

Figure 1: Orthopantomogram showing large radiolucent area associated with teeth 47 and 48 involving inferior alveolar canal.

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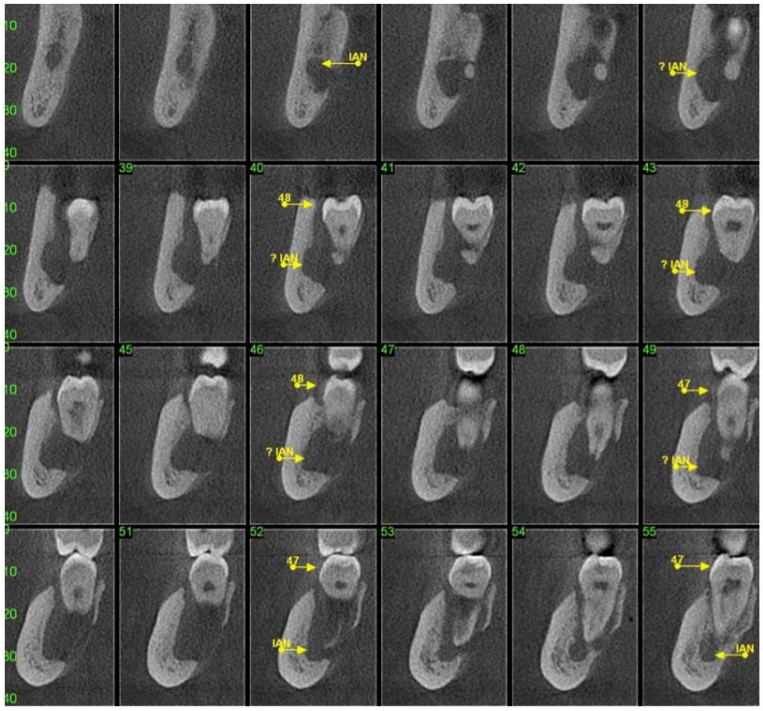

Figure 2: CBCT cuts showing radiolucent lesion associated with teeth 47 and 48 incorporating inferior alveolar nerve.

As it would be difficult to remove the lytic mass without sacrificing the inferior alveolar nerve it was decided to keep him on observation, unless the lesion enlarges and repeat the CT dentascan.

The patient was reviewed in 6 months' time and showed some improvement in the unusual sensation he was experiencing around teeth 47 and 48. A repeat CBCT suggested no changes in the size of the radiolucency. He was advised to come back in a year's time unless any symptoms arise.

Neurofibromatosis type 1 (NF1) is a common autosomal dominant genetic disorder with an approximate incidence of 1 in 3000 individuals worldwide. Neurofibromatosis type 1 was first described as a distinct clinicopathologic disorder in detail by von Recklinghausen in 1882, characterized as multisystem disorder and presents with involvement of skin, eye, bone, cardiovascular system and central nervous system. It is caused by a spectrum of mutations that affect the gene located on the 17q11.2 chromosome, known as NF1 gene. Only 50% of NF1 patients have a positive family history of the disease [1].

Tumors of the nervous system are an important cause of morbidity and mortality in NF1 patients. These include low-grade neoplasms with little malignant potential, e.g.: localized neurofibromas; premalignant tumors, e.g.: plexiform neurofibromas; and high-grade malignant tumors, e.g.: malignant peripheral nerve sheath tumors or high-grade astrocytoma's [2].

At least eight different clinical phenotypes of neurofibromatosis have been described. The major subtypes of neurofibromatosis are [3]:

- Peripheral neurofibromatosis or neurofibromatosis type 1 (NF1).
- Central neurofibromatosis or neurofibromatosis type 2 (NF2).
- Segmental neurofibromatosis, which is limited to a single body region.

NF1 is a well-documented hereditary condition characterized by multiple café-au-lait spots, neurofibromas and skeletal changes such as: sphenoid wing dysplasia, thinning of long bone cortex, macrocephaly.

A brief case report of Neurofibromatosis NF1 arising from inferior alveolar nerve is presented. It was agreed upon with the patient to be under observation clinically and radiologically to avoid the immediate consequences of neve resection which can affect his quality of life.

REFERENCES

1. Uchiyama Y, Sumi T, Mautani K, et al. (2018) Neurofibromatosis type 1 in the mandible. Annals of Maxillofacial Surgery 8(1):121-123.
2. Batra VV, Mines M, Rodriguez FJ (2014) Diagnostic review of neurofibromatosis type 1. AJSP: Reviews & Reports 19(2): 57-65.
3. Gutmann DH, Aylsworth A, Carey JC, et al. (1997) The diagnostic evaluation and multidisciplinary management of neurofibromatosis 1 and neurofibromatosis 2. JAMA 278(1): 51-57.