Extended Abstract

Particular Type of Amalgam Tattoo Associated with Rhizotomy in a Patient with Brain Malignant Tumor: A Diagnostic Dilemma †

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1. Introduction

Oligodendrogliomas constitute 5% of all primary brain tumors and are the third most common cancer among intracranial tumors [1]. Oral mucosal melanoma is uncommon, it develops following malignant transformation of melanocytes, occasionally with a poor prognosis [2].

2. Case Report

A 66 years old female patient went to our observation for a particular pigmented lesion on the lower gum. At the anamnesis she reported suffering from temporal left oligodendroglioma, so she takes dintoina 3 times a day since 1996 when it is discovered. After surgery, in 1999 oligodentroglioma relapsed and she was undergone to chemo and radiotherapy, and relapsed again in 2003 and in 2004 she was undergone to 4 times surgical intervention and chemotherapy. In February 95, she was submitted to rhizotomy of the element 36, with reconstruction of the amalgam abutments, root canal therapy of 35 with insertion of a molten post, both elements were covered with gold-resin crowns. Seven years after she presented an evident tattoo on the vestibular adherent gingiva, less accentuated by the lingual side, corresponding to the elements 35–36.

Over the years it has had several inflammatory episodes concerning the left gingival tissue (on the same part of the brain problem) and never on the right. In January 2019, after 17 years, the pigmented lesion, stable for 16 years, was extended to element 33 e 34 both vestibular and lingual (Figures 1 and 2). Given the patient’s medical history and the rapid expansion of the pigmented lesion, to exclude malignant conditions, the patient was sent to the Department of Odontostomatological Sciences of Bologna and a biopsy was performed. “Bioptic fragment of oral mucosa with deposition of blackish pigment in the chorion, mainly in the perivascular area. Lesion picture compatible with c.d. Amalgam tattoo” was the histological diagnosis.
3. Discussion

The amalgam tattoo is an iatrogenic lesion caused by the traumatic implantation of dental amalgam in soft tissues, whose diagnosis is evidenced by the position and the clinical appearance supported by the radiographic confirmation of metallic particles that are often too fine or widely dispersed to be visible on radiographs. Microscopic examination reveals that the amalgam is present in the tissues in two coexisting forms: solid metal fragments that surround the fibrous connective tissue or as numerous, thin, brown or black granules dispersed along collagen bundles around small blood vessels and nerves and are associated with a mild to moderate chronic inflammatory response, with macrophages engulfing small amalgam particles. Once the diagnosis of the amalgam tattoo has been established, no additional treatment is required except for aesthetic reasons. We have found only few cases in the scientific literature of gingival amalgam tattoo simulating malignant lesions such as melanoma [3,4].

Conflicts of Interest: The authors declare no conflict of interest.

References


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