Primary oral melanoma is a rare malignancy with an aggressive behaviour. Up to date, the wide clinical-histological variability of this oncological entity does not clarify the etiopathogenetic characteristics of these cancers and limit the therapeutic strategies. We report a case of a 64-year-old white female referred to the Dept. of Surgical, Oncological and Oral Sciences for a pigmented lesion of the mandibular gingiva, already arising 20 years ago but dimensionally increased in the last three months. Clinically, a black plaque-like pigmentation of the vestibular alveolar mucosa of the mandible (from 3.6 to 3.3) was observed. This lesions was still painless. CT dentalscan and ecography of the head and neck lymph nodes have showed no signs of bone and lymph nodes involvement. An incisional biopsy of the lesion was performed under local anaesthesia. Histopathologic examination showed a nodular proliferation of atypical melanocytic elements with epithelioid aspect and nuclear alterations; numerous abnormal mitotic figures were evident and the malignant melanocytes were characterized by marked intra/extracellular pigmentation. Immunohistochemical staining showed strong and diffuse positivity for Melan A and HMB45, 40% positive for Ki67 and positive/negative result for p16. These histopathologic features were suggestive for animal-type invasive melanoma. After diagnosis, the patient was referred to the Dept. of Head and Neck Surgery for staging and chirurgical approach of the lesion. At the best of our knowledge, only a very small number of animal-type melanomas have been reported in the oral cavity and usually with a more indolent behavior than conventional melanoma and a better prognosis. However, future reports are necessary to characterize the features of this cancer and to determine any factors that may correlate with outcome.