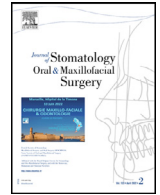




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Case Report

Secondary thrombocytopenia after SARS-CoV-2 vaccine: Report of a case of hemorrhage and hematoma after minor oral surgery



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ABSTRACT

The authors present the case of a patient who underwent the removal of a small bluish lesion of the cheek. After discharge, the patient presented with profuse bleeding and hematoma of the cheek. Blood tests revealed severe secondary immune thrombocytopenia (SITP). SITP was probably triggered by the anti-SARS-CoV-2 Pfizer vaccine, which was inoculated to the patient 3 days before the lesion appeared and 12 days before surgery. The authors' aim is to inform colleagues about this possible, rare, adverse effect of the vaccine. In all patients who have recently undergone the COVID-19 vaccine and who present lesions suspected to be due to blood extravasation of the oral mucosa or unjustified gingival bleeding it is advisable to request a blood count before surgery.

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1. Introduction

Healthcare systems around the world are currently committed in vaccinating the population against severe acute respiratory syndrome 2 (SARS-CoV-2) infection. In the face of high efficacy in preventing infection, safety studies have found a low frequency of side effects which are generally benign and temporary [1].

Secondary immune thrombocytopenia (SITP) was not reported among these adverse events. SITP is characterized by reduced platelet production or increased platelet destruction that occurred from secondary causes associated with chronic disorders or with disturbed immune function due to medications, infections, lymphoproliferative and myeloproliferative disorders or autoimmune diseases [2].

In the past, several cases of SITP have been associated with measles-mumps-rubella and varicella / zoster vaccines [3]. A recent analysis of the literature and of adverse events reported to drug agencies around the world found only 20 cases SITP related to the administration of SARS-CoV-2 vaccines [4].

We report the case of a patient who presented to the Maxillofacial Surgery Unit of the University Hospital of Sassari to perform an excisional biopsy of a small lesion of the cheek, which appeared three days after the administration of the second dose of the Pfizer vaccine.

2. Case report

An 81-year-old man reported the sudden appearance of a bluish cheek lesion. This lesion grew in a few days until it reached the size of 22 × 9 mm. On the advice of the dentist, the patient referred to the Maxillofacial Surgery Unit of the University Hospital of Sassari.

At the time of the visit, the patient presented a bluish lesion of the right cheek mucosa, 22 × 9 mm in diameter, soft consistency, painless and mobile on the underlying plane (Fig. 1). The patient presented with stage III chronic renal failure and hypercholesterolemia and had no personal or family history of bleeding or autoimmune disease. In July 2020 he underwent left hemicolectomy for an adenocarcinoma. The patient was being treated with the following therapy: allopurinol 300 mg/day, omeprazole 20 mg/day and atorvastatin 40 mg/day. The patient had completed the anti-SARS-CoV-2 vaccination protocol with Pfizer vaccine: first dose on 03/20/2021 (COMIRNATY mRNA, lot No. ET3620) and second dose on 04/12/2021 (COMIRNATY mRNA, lot No. EW2246). The second dose was given 3 days before the lesion appeared and 18 days before surgery. The

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