Chemotherapy induced first bite syndrome: a case report in a patient with Hodgkin’s Lymphoma

Carla V. Valenzuela, MD, Joseph P. Bradley, MD, FACS
Department of Otolaryngology- Head and Neck Surgery, Washington University in Saint Louis, St. Louis, MO

ABSTRACT

Sympathetic denervation is suspected to be the causative mechanism leading to First Bite Syndrome (FBS). This is typically seen in patients who have had mechanical compression or direct injury to the superior cervical ganglion or post-ganglionic sympathetic fibers. To date, it has not been reported in patients without the above risk factors. The objective of this study is to report FBS occurring in a subject without mechanical compression or injury to the superior cervical ganglion, as have previously been reported.

INTRODUCTION

• First bite syndrome (FBS) represents a rare, but known, symptom of prior surgery or tumor involving the deep parotid gland, parapharyngeal space, or infratemporal fossa.
• Etiology suspected to be hypersensitive response from denervated sympathetic fibers
• Objective of this study is to report FBS occurring in a patient without mechanical compression or injury to the superior cervical ganglion, as have previously been reported.

CASE REPORT

An 89 year-old male with a history of dilated cardiomyopathy status post implantable cardiac defibrillator, prostate cancer status post radiation, hypertension, and irritable bowel syndrome, was referred to our institution for anemia of unclear source with computerized tomography (CT) demonstrating mediastinal, hilar, and abdominal adenopathy. Clinical workup for the patient was consistent with classical Hodgkin’s lymphoma. A PET-CT scan demonstrated diffuse cervical, supravacular, mediastinal, axillary, hilar, retroperitoneal, mesenteric, and bilateral inguinal adenopathy. His cervical adenopathy was not located near the superior cervical ganglion (Figure 1). He was subsequently diagnosed with Classical Hodgkin’s lymphoma stage IIIa vs IVA and initiated chemotherapy the following week with plans for 6 cycles.

His chemotherapy regimen initially consisted of doxorubicin, bleomycin, vinblastine, and dacarbazine (ABVD); however due to his cardiac history, bleomycin was removed from his regimen after the first cycle. During the course of his chemotherapy regimen, the patient reported jaw pain while eating the first bite of a meal. He described an intense pain, located posterior to the left angle of the mandible that dissipated over subsequent bites. The overall quality of pain was closely timed to his chemotherapy treatments, which was rather intense immediately after treatment and would then gradually improve the next treatment.

DISCUSSION

• To date, no published cases in the literature describing the symptoms of FBS in a patient without a pre-existing mass or surgery in the parapharyngeal or parotid spaces, with a known underlying pathology in that region both on pre- and post-treatment CT (Figure 2).

CONCLUSIONS

• We report a case of FBS occurring in a subject with Hodgkin’s lymphoma during chemotherapy, without classic risk factors.
• There appears to be a correlation between onset and duration of first bite symptoms, and presumed sympathetic hypersensitivity, with chemotherapy administration.

REFERENCES