

Massive Enlargement of the Tongue: A Report of Unusual Case



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Citation Erfanian R, Heidari F, Sohrabpour S, Shakiba S. Massive Enlargement of the Tongue: A Report of Unusual Case. Case Reports in Clinical Practice. 2022; 7(2): 79-81.

Running Title Enlargement of the Tongue



Article info:

Received: 06 April 2022

Revised: 24 April 2022

Accepted: 11 May 2022

Keywords:

Massive enlargement of the tongue, Glossitis, Lingual hypertrophy

ABSTRACT

A 35-year-old woman presented with massive enlargement of the tongue. She had suffered this problem since a week ago when her tongue became enlarged with a sudden onset and eventually did not fit her mouth. Chronic tongue enlargement since childhood is noted. Patient had history of mental problems, namely cerebral palsy, and as she is not able to walk, she uses a wheelchair. Furthermore, due to severe scoliosis, right lung was atelectatic.

Soon after initial assessments, she was carried to surgery room and as she could not lie down to supine position, was intubated in sitting position with a rigid laryngoscope. During the whole process, patient was sedated. Afterwards, tracheostomy was performed.

After 5 days, no improvement in the size of tongue was observed. Diagnosis was revised in a medical commission and despite inflammatory pathology, the bulging tongue was resected.

After recovery, patient could bear oral feeding and was dismissed with good general health. After a week, the devised airway created by tracheostomy was removed without any complication. During one-year follow up, no sequelae were observed.

Case report

A

35-year-old woman presented with massive enlargement of the tongue. She had suffered this problem since a week ago when her tongue became enlarged with a sudden onset and eventually did not fit her mouth. Chronic tongue enlargement since childhood is noted. Patient had history of

mental problems, namely cerebral palsy, and as she is not able to walk, she uses a wheelchair. Furthermore, due to severe scoliosis, right lung was atelectatic. Her father had no history of seizures.

Vital signs were normal and she had no dyspnea. On examination, an ulcer was observed on the dorsum of the tongue and no submucosal tumor could be palpated (Fig. 1).

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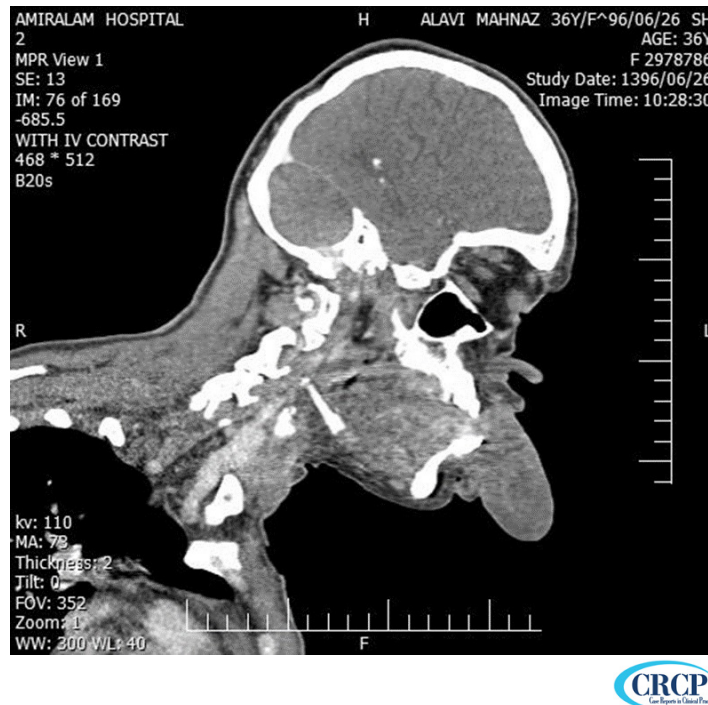


Fig. 1. The head and neck CT-scan illustrates extensively large tongue protruding from the patients mouth.

Soon after initial assessments, she was carried to surgery room and as she could not lie down to supine position, was intubated in sitting position with a rigid laryngoscope. During the whole process patient was sedated. Afterwards, tracheostomy was performed.

Further histopathological evaluations carried out by several biopsies of tongue and subcutaneous abdominal fat revealed chronic infection and no acute infection of the tongue. Moreover, samples did not stain with Congo red.

Primary diagnosis was tongue abscess and subsequent inflammation; thus the treatment with ceftriaxone, clindamycin and dexamethasone was initiated. Several sterile gauzes along with pharyngeal pack were placed between the rows of teeth in order to prevent the entry of blood, secretions and antiseptic solution into the stomach and trachea.

After 5 days, no improvement in the size of tongue was observed. Diagnosis was revised in a medical commission and despite inflammatory pathology, the bulging tongue was resected.

After recovery, patient could bear oral feeding and was dismissed with good general health. After a week, the devised airway created by tracheostomy was removed without any complication. During one-year

follow up, no sequelae were observed.

Discussion

Tongue swelling is relatively uncommon condition that can be either congenital or acquired. Variety of conditions such as lymphatic vascular malformations, Beckwith-Wiedemann syndrome, hemangioma, Down syndrome and hypothyroidism may cause congenital macroglossia.[1]

Acquired macroglossia might occur gradually or acutely. Gradual acquired macroglossia might be because of tumor infiltration, amyloidosis or myxedema. Acute enlargement of the tongue is rare but most of the times it can be life-threatening. According to Renehan and Morton acute swelling of the tongue could be divided into 4 categories: infection(tongue abscess), hemorrhage, edema, and infarction.[2]

Swelling of the tongue can be restricted to a specific region; the so-called local swelling which is asymmetric most of the times, or might be the generalized swelling involving most of the tongue.

Kawaguchi et al. reported a case in which the main cause of the tongue swelling had been mechanical obstruction of venous and lymphatic return by pharyngeal packs during neurosurgical procedure. [3]

The first line management and treatment of acute or chronic would be conservative and supportive. A suggested conservative treatment for macroglossia due to chronic trauma to the tongue would be modified bite guard.[4] When the patient is unresponsive to the first line then invasive surgical incision, namely partial glossectomy, becomes treatment of choice.

Recurrence of tongue swelling and mental problems could be the possible culpable by which the tongue had been ulcerated and as a result, microorganism had been introduced into tongue tissue causing chronic inflammation. In our case, tongue abscess was rolled out because the patient was unresponsive to antibiotics. Moreover, movement and mental disorder might be responsible for lack of adequate oral care and mechanical injuries to the tongue. The important feature of our case was the outstanding remission after tongue incision, though the course of disease had indicated infection and inflammation.

Ethical Considerations

Informed consent was obtained from the patient and the patient's information was used anonymously and in compliance with ethical principles.

Compliance with ethical guidelines

There were no ethical considerations to be considered in this research.

Funding

This research did not receive any grant from funding agencies in the public, commercial, or non-profit sectors.

Authors' contributions

All authors equally contributed in preparing this article.

Conflict of interest

Authors declare that there is no conflict of interest.

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