

CASE REPORT

Partial Ankyloglossia with Cervical Rib

Jayalakshmi K¹, Ravikumar H², Karpagaselvi³, Raju Ragavendra T⁴, Sowmya K⁵

Associate Professor¹
Asst. Professor² (Dept. of General Surgery)
Professor³
Dept. of Oral Pathology and Microbiology
Vydehi Institute of Dental Sciences,
Bangalore -560066

Reader^{4,5}
Dept. of Oral Pathology and Microbiology
Peoples Dental Academy,
Bhopal

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ABSTRACT:

Ankyloglossia is a minor congenital anomaly in which the flap of mucous membrane under the tongue is too short and limits the normal mobility of the tongue. Cervical rib is also a developmental anomaly in which costal element may develop from the anterior part of the transverse process of the 7th cervical vertebra, it could be either unilateral or bilateral. The etiology may be genetic origin or by teratological effects. We report here a rare case of 32 year old female patient with Partial Ankyloglossia with cervical rib. She presented with characteristic pain of intermittent claudication i.e, pain appears with the use of the arm particularly when the arm is in raised position & the pain is relieved by rest. Lispings of speech was also present and on examination of the oral cavity Partial Ankyloglossia was seen. Parental history was not relevant. There were no medical problems. Antero posterior neck radiograph revealed rudimentary cervical rib on right side and a developed cervical rib on left side. A conservative treatment for cervical rib such as analgesics and physiotherapy was advised with follow up and for Partial Ankyloglossia frenulectomy was advised.

Key words: *Partial ankyloglossia, cervical rib, frenulectomy, congenital defects*

INTRODUCTION

Ankyloglossia occurs as a result of developmental aberration in utero. The prevalence of Ankyloglossia is between 4% and 10%.⁸ Ankyloglossia is a relatively common finding in the newborn population and represents a significant proportion of breastfeeding problems.⁵ The medical diagnosis (Ankyloglossia) is not that uncommon. But the diagnosis of cervical rib is made by a mass radiography which is present in 0.45% of all individuals.⁴ We describe here a case report of atypical presentation of Partial Ankyloglossia along with presence of cervical rib. The patient presented to the outpatient department with intermittent pain on raising of the arm and was subsequently found to have cervical rib. On oral examination Partial Ankyloglossia was present.

CASE REPORT

A 32 year old female patient visited the outpatient department with severe pain in the left arm

Email for correspondence:
kswmys@gmail.com

on raising, for past 4 to 6 months and the pain relieved by rest and for the past 2 weeks pain appeared on the right arm on raising and was relieved by rest. The pain was characteristic of intermittent claudication and the pain radiated to the shoulder and neck. Tingling sensation was present on left little finger. Lispings of speech was also present.

There was no other medical problems, Parental history was not relevant. On oral examination Partial Ankyloglossia was present as seen in [fig 1]. Antero posterior radiograph revealed rudimentary cervical rib on right side and a developed cervical rib on left side [fig 2]. The patient was advised for frenulectomy for Partial Ankyloglossia and conservative treatment to relieve the symptoms of cervical rib such as use of a sling, physiotherapy, exercises and analgesics and follow up.

Discussion

Being tongue tied is more than just not knowing what to say. It is an actual medical diagnosis (Ankyloglossia) that is not that uncommon. Ankyloglossia by definition is a minor congenital

anomaly in which the flap of mucous membrane under the tongue is too short and limits the normal mobility of the tongue. There is no well validated clinical method for establishing a diagnosis of Ankyloglossia.⁸ Tongue tie most commonly appears as a partial restriction and rarely as a complete fusion. It has been implicated in speech defects, breast feeding difficulties and a source of dental problems.⁹ In our case the patient presented with lisping and pre-nunciation of certain diphthongs was difficult and this was not the chief complaint because Partial Ankyloglossia did not interfere in major function.

Cervical rib is a costal element that develops from the anterior part of the transverse process of the 7th cervical vertebra. Only by mass radiography it has been found out that the cervical rib is present. In more than 1/2 cases the cervical rib is unilateral. It is common on the right side.⁴ In our case since the chief complaint was pain in the left arm and radiated to the neck and shoulder, an anteroposterior neck radiograph revealed a rudimentary cervical rib on right side and a developed cervical rib on left side.

The etiology of congenital defect could be either genetic or teratogenic factors. In teratogenicity, studies claim that the same agent applied at different stages of development produces different types of defects.⁹ Noda T et al^{1&2} has reported the external malformations such as cleft mandible, left lower lip, Ankyloglossia etc and skeletal malformations such as fused ribs, cervical etc with the teratogenic effect of di n butyltin diacetate and it is dose dependent. In addition, this compound is used as thermal and UV stabilizers for polyvinyl chloride. In our case the exact cause is unknown.

Thus the deformity can range from minor to severe variety and in various combinations. In literature many variations have been described related to Ankyloglossia. Armstrong³ reported Bifid uvula and Ankyloglossia. Roshani E R⁶ reported Median cleft of mandible and lower lip with Ankyloglossia and ectopic minor salivary gland on tongue here. Ours is a case of atypical presentation of Partial Ankyloglossia with cervical rib.

The incidence of cervical rib is 0.5 to 1% and cervical ribs are thought to cause symptoms in 2 to 35% of affected individuals.⁷ Ankyloglossia occurs in approximately 1.7 percentile of all neonates without preference for either gender.⁹

Tongue tie is released through a simple procedure frenuloplasty or frenulectomy.^{5,9} The

management of cervical rib includes conservative treatment such as use of a sling, physiotherapy and exercises to strengthen the muscles of the shoulder girdle and to elevate the shoulder, Analgesics and surgical intervention is attempted if the conservation treatment fails.⁴

In conclusion, proper history and clinical examination to diagnose and assess the functional disability are essential. The occurrence of Ankyloglossia with cervical rib is rare. To our knowledge this is the first case to be reported.

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Figure 1: Intraoral photograph showing partial ankyloglossia



Figure 2: Neck Radiograph showing rudimentary cervical rib on right side & complete cervical rib on left side