

MACROGLOSSIA : A CASE REPORT

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This paper is a report on a case of Macroglossia. The articulatory behaviour of a boy of 14 years with a congenital cystic swelling occupying the anterior 1/3 of the tongue (approximately 50 c.c.) has been described.

Tongue has been considered as one of the most important articulators in the production of speech- Deu Pree (1971) considers the tongue to be a multipurpose organ with a great importance not only for speech but also for sense of taste, in addition to its other vegetative functions. It is believed that normal tongue is necessary for normal articulation.

Daniloff and others (1980) consider the tongue to be crucial in speech production because of its prime determinance of vocal tract shape. As an articulator, the tongue's major functions are to

- (1) moderate the air flow (to create noisy vibrations) and
- (2) alter the vocal tract shape and thus control the resonance frequencies.

According to Weinberg *et al* (1969), de Jessieu (1917) was the first to report a case of congenital lingual hypoplasia. Since then fewer than 30 cases have been reported (Weinberg *et al.*, 1969). Bloomer (1957) has reported on speech in surgically glossectomized adults. Backus (1940) described speech in a boy whose tongue-tip was excised.

Weinberg *et al.* (1969) reported congenital hypoplasia of the tongue in a 7 year old girl. Her speech was reported to be readily intelligible both in single word utterances and in conversation. She was reported to produce both consonants and vowels with high phonetic identifiability. Sibilants were reported to be distorted in addition to *f/th* and *v/r* substitutions. She was reported to produce the lingual consonants without significant contributions from her severely hypoplastic tongue.

Though there are few reports about hypoplasia of the tongue, there have been no reports available, as to the speech functioning in cases with hyperplasia of the tongue or macroglossia.

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Master M, aged 14 years, reported to All India Institute of Speech and Hearing on 22nd October 1984 for an examination of his lingual swelling.

Oto-rhino-laryngological evaluation revealed a congenital cystic swelling occupying the tip and whole of the anterior 1/3 of the tongue (Figs 1 & 2).



FIG. 1



FIG. 2

On speech evaluation he was observed to have intelligible speech, except for few misarticulations. The increase in the size of the tongue amounted to 50 c.c. on physical measurements made.

As the case was an illiterate, a repeat-after-me articulation testing was done using Kannada Articulation Tests (Babu, Bettagere and Rathna, 1971). The tape recordings of conversation and articulation testing were played to ten normal listeners for judging intelligibility. All the listeners reported the speech to be intelligible. All of them reported mild distortions of /r/, /Ø/ & |d_c| phonemes (None of the listeners knew that the recordings were of a case of macroglossia).

In this case good compensatory movements were observed for the production of bilabials, labiodentals, palatals, and sibilants. Bilabials were replaced by lingualabials. Labiodentals were replaced by linguadentals.

In the production of palatals, the root of the tongue replaced the apex of the tongue. In the production of sibilants, again the root of the tongue participated in place of the apex of the tongue. Such compensatory movements of the tongue can be attributed to semi-independent functioning of various parts of the tongue.

Daniloff and others (1980) reported (1) the tip (2) the dorsum and (3) the root (body) to b[^] the three semi-independent articulators. Because of this nature compensatory movements may be more plausible.

In a speaker-listener relationship, normal articulator with normal movements will produce normal articulatory experiences in a listener. Similarly an abnormal articulator with abnormal movements still can produce normal articulatory experiences in a listener.

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