Grooved Tongue and Congenital Muscular Torticollis

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A 5-year-old male presented with an asymptomatic grooved and atrophic right side of the tongue (Fig. 1A), noticed 8 months before by his pediatrician as “right mild lingual deviation”.

At the time of birth, the child was in good health except for right-sided congenital muscular torticollis (CMT) without plagiocephaly and clinically evident facial asymmetry. Neurologic, radiologic (including cervical-spine 3D-CT-Scan), cardiologic, hematologic, ophthalmologic, and otorhinolaryngologic tests were negative, and the patient received only 8 months of physiotherapy started at the age of 18 months.

With the suspicion of an ipsilateral CMT sequela a differential diagnostic algorithm was started excluding a hypoglossus central dysfunction through Magnetic Resonance Imaging. Ultrasonography of the head and neck region showed the presence of a 5 mm median cyst in submental area (Fig. 1B) and asymmetry between the genioglossus muscles (right=2.8 mm; left=5.8 mm) (Fig. 1C).

Current treatment options for CMT encompass physiotherapy, surgery or other treatments like botulinum toxin. Conservative therapy includes stretching of the shortened SCM and is considered the first line of treatment. Early diagnosis and treatment are mandatory to prevent sequelae affecting the cervical range of motion and secondary musculoskeletal deformities (Jung et al., 2015; Lee et al., 2015; Nilesch and Mukherji, 2013).

In our patient we assumed that compressions of the neck anatomical structures due to CMT and to the right-sided head position could have impaired the normal growth of the genioglossus muscle acting directly or indirectly on mechanoreceptors or on the hypoglossus pre-lingual portion.

In addition, the initiation of physiotherapy was delayed, and the monitoring of the suprahyoid region muscles was insufficient.

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Therefore, it is likely that the soft-tissue compression has led to abnormalities of soft-tissue differentiation causing edema, degeneration of muscle fibers and fibrosis within the involved muscles (Nilesh and Mukherji 2013). Oral Medicine specialists should regularly monitor the appearance of any supra/infra-hyoid region asymmetry through Ultrasonography.

Fig. 1.

Conflict of Interest

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