

In men, symptoms include absence of axillary, body and pubic hair, decreased libido, erectile dysfunction, decreased muscle strength, and diminished aggressiveness and drive. Examination in males usually shows eunuchoid body habitus, micropenis, microtestes or cryptorchidism. Obesity is a rare association. Mild pituitary hypoplasia in this case can be explained by decreased stimulation of the anterior pituitary by deficient hypothalamic GnRH. In the case described, to subject the patient to a genetic study seemed unnecessary, because he presented no adrenal function anomalies, nor positive familiarity.

Laboratory examination should aim at identifying the causes of hypogonadism, which could be due to systemic diseases, other endocrine abnormalities or intracranial lesions like craniopharyngioma. Serum luteinizing hormone, follicle-stimulating hormone and serum (total or free) testosterone (in males) /estradiol levels (in females) are low. Screening for serum prolactin, TSH and ferritin levels to rule out hemochromatosis<sup>5</sup> is important and will be essentially normal. Imaging studies especially of the brain is essential to rule out intracranial lesion of the pituitary and hypothalamus<sup>6</sup>.

Obesity in our case was present since very childhood and there was positive history of hyperphagia since childhood, which were silent clues of hypothalamic dysfunction. This rare case also depicts the associated complications of obesity in form of insulin resistance leading to Type 2 diabetes and or pulmonale due to chronic alveolar hypoventilation (Pickwickian syndrome). Characteristic findings observed with obesity-

hypoventilation syndrome include awake resting hypoxemia, hypersomnolence, signs of cor pulmonale (right-sided heart failure and lowerextremity edema), and nocturnal hypoventilation. The diagnosis of OHS requires a demonstration of at least a 10 mmHg increment in PaCO<sub>2</sub> during sleep. Patients with obesity hypoventilation syndrome often can be confused with patients with COPD since both of these patients manifest daytime hypercapnia. However, patients with COPD have an obstructive pattern on their pulmonary function studies, whereas patients with OHS usually have a restrictive pattern on their pulmonary function studies. In addition, patients with COPD. However, patients with OSA may have obesity that is severe enough not only to evoke more severe nocturnal hypoxemia, but also to result in restrictive ventilator defects and daytime hypoxia<sup>7</sup>.

## REFERENCES

1. Achermann JC, Jameson JL. Advances in the molecular genetics of hypogonadotropic hypogonadism. *J Pediatr Endocrinol Metab* 2001; 14: 3-15.
2. Whitcomb RW, Crowley WF jr. Male hypogonadotropic hypogonadism. *Endocrinol Metab Clin North Am* 1991; 72: 125-43.
3. Fromantin M, Gineste J, Didier A, Rouvier J. Impuberism and hypogonadism at induction into military service. Statistical study [Article in French]. *Probl Actuels Endocrinol Nutr*.1973 16:179-99.
4. Silveira LF, MacColl GS, Bouloux PM. Hypogonadotropic hypogonadism. *Semin Reprod Med*. 2002; 20:327-38.
5. Foscolo G, De Menis E, Legovini P, Breda F, Monco A, Scaldaferrri E, Conte N, Hypogonadism in idiopathic hemochromatosis, *Minerva Endocrinol*.1989; 14:159-63.
6. Nachtigall LB, Boepple PA, Pralong FP, Crowley WF Jr: Adult-onset idiopathic hypogonadotropic hypogonadism—a treatable form of male infertility. 1997; *N Engl J Med*; 336: 410-5.
7. Olson AL, Zwillich C: The obesity hypoventilation syndrome. *Am J Med* 118:948-956, 2005.

## Trifid Tongue

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## INTRODUCTION

The tongue develops during the fourth week of intrauterine life, originating from a median swelling, the tuberculum impar on the floor of the pharynx and two lateral lingual swellings joining this central structure. These lateral lingual structures grow rapidly to cover the tuberculum impar to form the outer two-thirds of the tongue.<sup>1</sup> When this process is disturbed, tip of the tongue is divided longitudinally for a certain distance giving rise to bifid tongue. Trifid tongue is formed by failure of fusion of lingual swellings with each other and with tuberculum impar.<sup>2</sup> Here we are reporting a case of child with trifid tongue.

## CASE REPORT

A 4-year-old female child has reported to our OPD with trifid tongue for which plastic surgery was planned. Child was having history of delayed achievement of milestones. She was unable to accept breast feed in infancy. Her speech was slurred and her vocabulary was only of 4-5 words. Her mental age was 1 year. No other anomaly was found in this child and no significant history was present in the mother during her antenatal period.

## DISCUSSION

Trifid tongue is usually a component of Orofacial digital syndrome. With here it may be associated with hypertrophy of frenum, cleft palate, absence of lateral incisors, enamel hypoplasia, hypoplasia of nasal cartilages, milia of ear pinnae, varying degree of hair loss, syndactyly, clinodactyly, may have mental retardation, CNS disorders, speech impairment, hearing loss, polycystic kidneys.<sup>3</sup>

Bifid tongue has been reported in syndromic cases like Opitz G BBB syndrome, Orofacial digital syndrome type 1, Klippel Feil anomaly and



Larsen syndrome<sup>4,7</sup>. Bifid tongue has also been reported as a rare feature in infant of diabetic mothers.<sup>8</sup> Association has also been postulated with cleft palate, mandibular cleft, midline palatomandibular bony fusion and cervical vertebrae.<sup>9</sup>

In our case only mental retardation was present in addition to trifid tongue. We were unable to identify any associated orofacial or vertebral anomaly, genetic predisposition or history of gestational diabetes in mother. So this case could not be put in any well defined syndrome.

## REFERENCES

1. Emmanouil-Nikoloussi EN, Kerameos-Foroglou C. Developmental malformations of human tongue and associated syndromes (review) *Bull Group Int Rech Sci Stomatol Odontol*. 1992;35:5-12.
2. Bhatnagar S.M. *Essentials of human embryology (Revised Edition)*. 2000;128.
3. Earle H, Yeamans, D.D.S. *OFDI syndrome and mental retardation*, Hartford, Connecticut 06112.
4. Mihci E, Tacyo S, Ozbilim G, Franco B. Oral-Facial-Digital Syndrome Type 1. *Indian Pediatrics*. 2007;44:854-6
5. Orhan D, Balci S, Deren O, Utine EG, Basaran A, Kale G. Prenatally diagnosed lethal type Larsen-like syndrome associated with bifid tongue. *Turk J Pediatr*. 2008;50:395-9
6. Parashar SY, Anderson PJ, Cox TC, McLean N, David DJ. Management of Opitz G BBB Syndrome. *Ann Plast Surg*. 2005;55:402-713.
7. Widge-row AD. Klippel-Feil anomaly, cleft palate and bifid tongue. *Ann Plast Surg*. 1990;25:216-2214.
8. James AW, Culver K, Hall B, Golabi M. Bifid tongue: A rare feature association in infants of diabetic mother syndrome. *Am J Med Genet*. 2007;143A:2035-9.
9. Rao S, Oak S, Wagh M, Kulkarni B. Congenital midline palatomandibular bony fusion with a mandibular cleft and a bifid tongue. *Br J Plast Surg*. 1997;50:139-41.

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