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Congenital Torticollis

Congenital muscular torticollis is a disorder characterize by shortening of the cervical muscles, most commonly the sternocleidomastoid (SCM) muscle, and tilting of the head to the opposite side. This is the result of endomysial fibrosis of the SCM muscle. There is a relationship between birth position and the side affected by the contracture. Congenital torticollis causes: plagiocephaly (a craniofacial deformity), fascial asymmetry (hemihypoplasia), scoliosis and atrophy of the ipsilateral trapezius muscle if not corrected. Torticollis can develop at any age, although is more common during the first six months of life. The SCM muscle can be a fibrous mass, or a palpable tumor 1-3 cm in diameter within the substance of the muscle is identified by two to three weeks of age. Management is conservative in most cases using early physiotherapy exercises' a mean duration of three months to achieve full passive neck range of motion. The severity of restriction of motion is the strongest predictor of treatment duration. Those children with failed medical therapy or the development of fascial hemihypoplasia should undergo surgical transection of the SCM muscle.

TDC

Thyroglossal duct cyst (TDC) is the most common congenital anterior midline neck mass usually (2/3 of cases) presenting before the second decade of life. Symptoms appear at an average age of four with the sudden appearance of a cystic mass at the angle of neck level moving with tongue protrusion and swallowing. Males are more commonly affected than females. TDC is an embryologic anomaly arising from epithelial remnant left after descent of the developing thyroid from the foramen cecum. The lining is cuboidal, columnar or pseudostratified epithelium. TDC is associated to discomfort, infection and a slight probability of malignancy. A legally protective requirement is to document that the mass is not ectopic thyroid gland. Diagnosis is physical. Sonograms will show a cyst between 0.4 and 4 cm in diameter, with variable sonographic appearance and no correlation with pathological findings of infection or inflammation. Once infected surgical excision is more difficult and recurrence will increase. Management is Sistrunk's operation: Excision of cyst

with resection of duct along with the central portion of hyoid bone (a minimum of 10-15 mm of hyoid bone should be removed) and some muscle surrounding the proximal ductules (the length of single duct above the hyoid bone spreads into many ductuli as it approach the foramen cecum). Extensive dissection can cause pharyngodynia. The greatest opportunity for cure is surgery at initial noninflamed presentation. Inadequate excision is a risk factor for further recurrence.

BCF

Branchial cleft fistulas (BCF) originate from the 1st to 3rd branchial apparatus during embryogenesis of the head and neck. Anomalies of the 2nd branchial cleft are by far the most commonly found. They can be a cyst, a sinus tract or fistulas. Fistulas (or sinus tract if they end blindly) display themselves as small cutaneous opening along the anterior lower third border of the sternocleidomastoid muscle, communicates proximally with the tonsillar fossae, and can drain saliva or a mucoid secretion. Management consists of excision since inefficient drainage may lead to infection. I have found that dissection along the tract (up to the tonsillar fossa!) can be safely and easily accomplished after probing the tract with a small guide wire in-place. This will prevent injury to nerves, vessels and accomplish a pleasantly smaller scar. Occasionally a second stepladder incision in the neck will be required. 1st BCF are uncommon, located at the angle of the mandible, and communicating with the external auditory canal. They have a close association with the fascial nerve. 3rd BCF are very rare, run into the piriform sinus and may be a cause of acute thyroiditis or recurrent neck infections.

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