Developmental defects of the branchial region

The **branchial region**'is the region formed by the gill structures. These structures are only temporary and are rebuilt, adapted or disappear over time. Among the most prominent structures of the branchial region are the pharyngeal (gill) arches ***(arcus branchiales).*** Pharyngeal arches arise from paired bands of ectomesenchyme in the embryonic period during the 4th to 5th week. With its development, it also creates other structures - **slits, protrusions** and **membranes**. Their influence is important for the development of the neck and face.

🔎 *For more information see Development of the pharyngeal apparatus.*

Developmental defects

Cleft defects

Developmental defects of the branchial region include various types of cleft defects:

- incomplete cleft lip;
- bilateral cleft lip;
- cleft lip, upper jaw and palate;
- isolated cleft palate;
- oblique facial cleft.

🔎 *For more information see Facial Clefts.*

Lateral branchial cysts and fistulas

They are a remnant of the "sinus cervicalis", most often under the lower jaw.

🔎 *For more information see Fissural cysts.*

Internal jugular fistula

They arise as remnants of the 3rd and 4th pharyngeal depressions in the area before the *m. sternocleidomastoid*.

Treacher-Collins Syndrome

This is a developmental disorder of the 1st gill arch. Cheek hypoplasia occurs due to an insufficiently formed *os zygomaticum*. Other disorders include hypoplasia of the lower jaw, drooping eyelids and malformations of the external ear.

🔎 *For more information see Craniofacial Syndromes.*

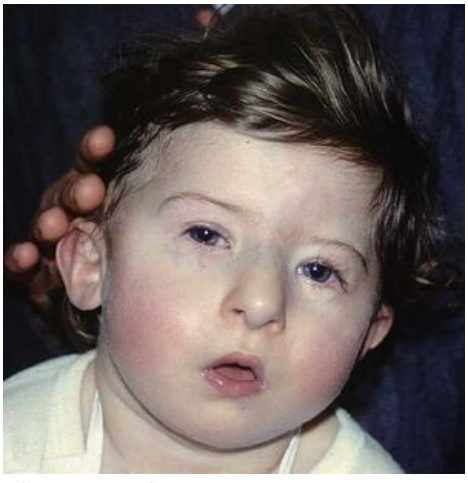
Pierre Robin Syndrome

It is caused by a developmental disorder of the 1st gill arch accompanied by a cleft palate and a sunken tongue (so-called *micrognathia*).

DiGeorge syndrome

It is among the most serious malformations in the branchial region. There are developmental defects in the floor of the outflow system of the heart and the outflow tract of the face. The cause of this disorder can be excessive use of vitamin A, alcohol or gestational diabetes.

🔎 *For more information see DiGeorge Syndrome.*



DiGeorge syndrome

Goldenhav Syndrome

The main features of the malformation include a protruding forehead, hypoplasia of one side of the face, disorders of the development of the auricle and the auditory pathway, or vertebral anomalies.

🔎 *For more information see Goldenhar Syndrome.*

Related Articles

- Development of the pharyngeal apparatus
- Facial Clefts
- Fissural cysts
- Craniofacial syndromes
- DiGeorge Syndrome
- Goldenhar Syndrome

References

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