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# ANATOMICAL VARIABILITY OF THE SUPERFICIAL MUSCLES OF THE ANTERIOR CERVICAL REGION IN HUMAN FETUSES

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**Introduction.** The study of the development and establishment of correlational relationships of organs and structures of the neck in the fetal period of human ontogenesis is caused by the theoretical and practical interest of both morphologists and clinicians to find out the prerequisites for the occurrence of congenital and acquired pathology of muscles, fascial-cellular formations, organs and vascular-nervous structures.

**The aim of the study.** Identify the anatomical variability of the superficial muscles of the anterior cervical region during the fetal period of human development.

**Material and methods.** The study was conducted on 75 preparations of human fetuses without external signs of anatomical deviations or developmental anomalies using a complex of morphological research methods.

**Results.** As a result of the study, additional muscles of the infrahyoid area were found in 6.67% of the fetuses, and fetal anatomical variability of some surface muscles of the neck was established. In a fetus of 196.0 mm TCL, an additional muscle was found – the hyothyroidglandular, which begins with a thin tendon from the body of the hyoid bone, passes through the upper edge of the thyroid cartilage and is attached to the base of the pyramidal lobe of the thyroid gland with a muscle belly. The hyothyroidglandular, muscle is located deeper than the sternohyoid and sternohyoid muscles, but more superficial to the thyrohyoid and cricothyroid

muscles. In a fetus of 205.0 mm TCL, the thyrothyroidglandular, muscle was found, which starts from the lower edge of the lateral part of the body of the hyoid bone and is attached to the capsule of the left lobe of the thyroid gland, the latter having an inherent crescent shape. The length of this muscle is 3.9 mm, the width in the middle part of the abdomen is 2.6 mm, and the thickness is 0.4 mm. In a fetus of 188.0 mm TCL, the right thyrothyroidglandular muscle was found, which starts from the upper edge of the right plate of the thyroid cartilage and attaches to the capsule of the right lobe of the thyroid gland. In a fetus with 248.0 mm TCL, the left thyrothyroidglandular muscle was also detected, which starts from the outer surface of the left plate of the thyroid cartilage and attaches to the capsule of the left lobe of the thyroid gland.

Blood supply to the identified additional muscles is provided by additional branches of the right and left superior thyroid arteries. In one case (fetus 370.0 mm TCL), a tendon membrane was found in the right sternohyoid muscle. The main source of blood supply to the sternohyoid muscle is the superior thyroid artery. The upper and lower thirds of the sternohyoid muscle are best supplied with blood and innervated.

At the same time, the branching of arteries occurs in the direction of passage of muscle bundles, mainly in the trunk form, and nerves – in the loose form. Nerve trunks (1-2) go at an acute angle to the back surface of the sternohyoid muscle. As a rule, one nerve enters the sternohyoid muscle at the border of its upper and middle third, and the lower nerve enters the lower third of the muscle. In most cases of observation, the nerves together with the vessels enter through the lateral edge of the middle third of the sternothyroid muscle.

The blood supply of the sternothyroid muscle is provided by the branches of the superior and inferior thyroid arteries. The left thyrothyroid muscle was absent in a 240.0 mm TCL fetus. In a fetus of 179.0 mm TCL, the medial and lateral crus of the left sternohyoid muscle were detected; the left thyrothyroid muscle is absent in a 240.0 mm TCL fetus; In a fetus of 310.0 mm TCL, the right sternocleidomastoid muscle began with three crura: medial, intermediate and lateral.

**Conclusions.** In human fetuses, additional muscles and anatomical variability of some superficial muscles of the neck are found. The loose form of the intramuscular branching of the nerves of the ansa cervicalis in the infrahyoid muscles of the neck was established, with the exception of the lower belly of the omohyoid muscle, where the main form was found. The distribution of nerves in the thickness of the infrahyoid muscles is uneven: the smallest number of nerve branches is found within the middle third of the sternohyoid muscle and the upper third of the sternohyoid muscle. Arteries in the thickness of the infrahyoid muscles mainly branch in the main form.