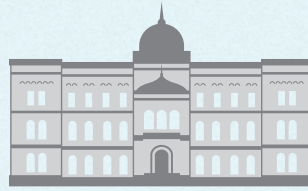


11th BALTIC
**MORPHOLOGY
MEETING**

NOVEMBER 13-15, 2024



ANATOMICUM, RIGA

11th Baltic Morphology Meeting

ABSTRACT BOOK

November 13–15, 2024
Rīga, Latvia



RĪGA STRADIŅŠ
UNIVERSITY

Baltic Morphology 11th Meeting [November 13–15, 2024]: Abstract Book. – Rīga: Rīga Stradiņš University, 2024. – 98 p., including Author Index.

<https://doi.org/10.25143/rsu-balt-morf-11-meeting>

Chair of the Meeting

Professor, *Dr. med.*, *Dr. habil. med.* Māra Pilmane

All abstracts reviewed

Abstracts do appear in the abstract book in accordance to their presentation order
(not in the alphabetical order)

Authors are responsible for the content of their abstracts

RSU IPD No. IPD-5115

© Rīga Stradiņš University, 2024
16 Dzirciema Street, Rīga, LV 1007

ISBN 978-9934-618-58-1 (printed edition)

ISBN 978-9934-618-59-8 (electronic edition, online)

Dynamics of general size and shape of the craniofacial compartment, and its sexual differences in Lithuanian adolescents, taking into account the pubertal growth spurt

Stukaite-Ruibiene Egle, Tutkus Jonas, Gervickaite Simona,
Šimkūnaitė-Rizgelienė Renata, Barkus Arunas, Tutkuvienė Janina

*Department of Anatomy, Histology and Anthropology, Faculty of Medicine,
Vilnius University, Lithuania*

Objectives. Craniofacial studies play an important role in forensic facial identification. However, research on craniofacial changes associated with body growth remains limited. The aim of this study was to evaluate the dynamics of craniofacial growth and sexual differences associated with the pubertal growth spurt (PGS).

Materials and methods. A total of 683 girls and 692 boys (aged 10–20) were included in the study. Standard anthropometric methods (L. G. Farkas, 1994; H. Greil, 2003) were used to assess height, body mass index (BMI), head length (HL), head breadth (HB), head circumference (HC), bizygomatic (BzW) and bigonial (BgW) widths, physiognomic (PhyFH) and morphological (MorFH) facial height. Coefficients of sexual dimorphism (SDCs) were calculated (Borgognini Tarli and Repetto, 1986).

Results. In 10–20 age period, the height of girls/boys increased from 141.0/141.3 to 168.9/182.7 cm. For girls, height PGS was at 10–13 years, for boys – at 11–15 years. In both sexes, BMI PGS started 1–2 years after height PGS. For girls, MorFH and PhyFH grew mainly at 11–13 years ($p < 0.01$), for boys – at 10–11 and 13–14 years. BzW and BgW increased the most in girls aged 10–11 years ($p < 0.01$) and in boys aged 12–13 and 15–16 years. HL increased the most in 12–13-year-old girls, 10–11 and 15–16-year-old boys, HW – in 12–13-year-old girls, 12–13 and 15–16-year-old boys. Sexual dimorphism increased until age 16–17, peaking between 13–14 and 15–16 years.

Conclusions. There was one period of rapid increase in craniofacial parameters of girls and two – in boys. In girls, vertical and transverse parameters grew mostly at the first phase of height PGS; however, in boys – vertical parameters grew most at the beginning and the end of height PGS; in addition, their facial widths grew more closely with BMI PGS. Sexual dimorphism stabilized only at the end of the growth period.