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CROSS-SECTIONAL STUDY OF THE C1-S5 VERTEBRAL BODIES IN HUMAN FETUSES

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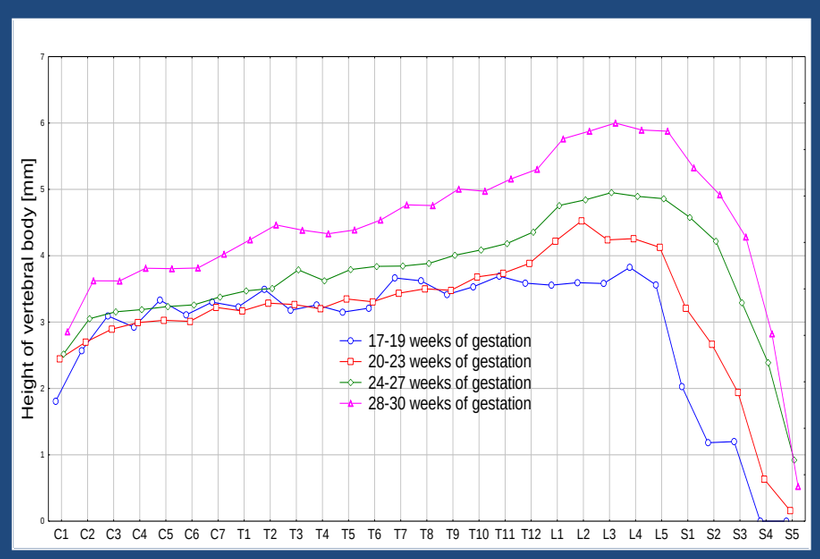
Introduction:

Knowledge on the normative spinal growth is relevant in the prenatal detection of its abnormalities. The present study determines the height, transverse and sagittaldiameters, cross sectional area, and volume of individual C1–S5 vertebral bodies.

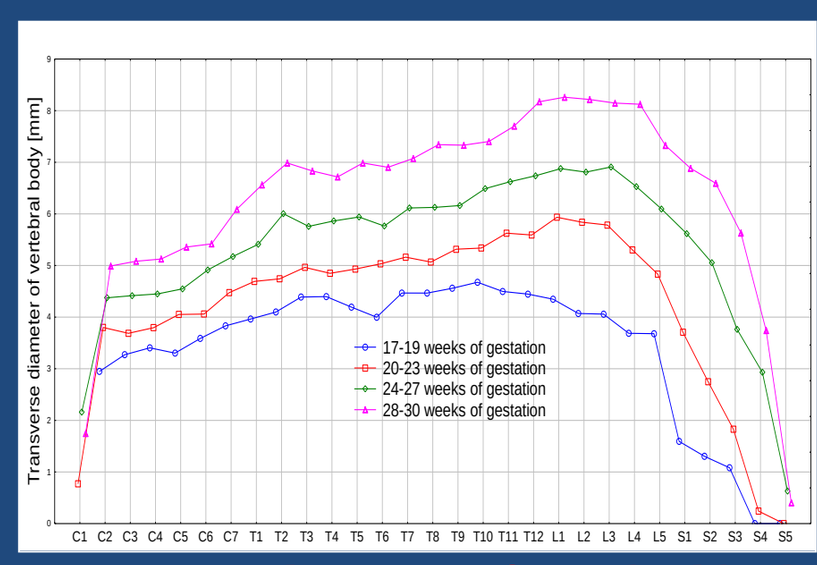
Material and Methods:

Using the methods of CT, digital-image analysis, and statistics the size of C1–S5 vertebral bodies in 55 spontaneously aborted human fetuses aged 17–30 weeks was examined.

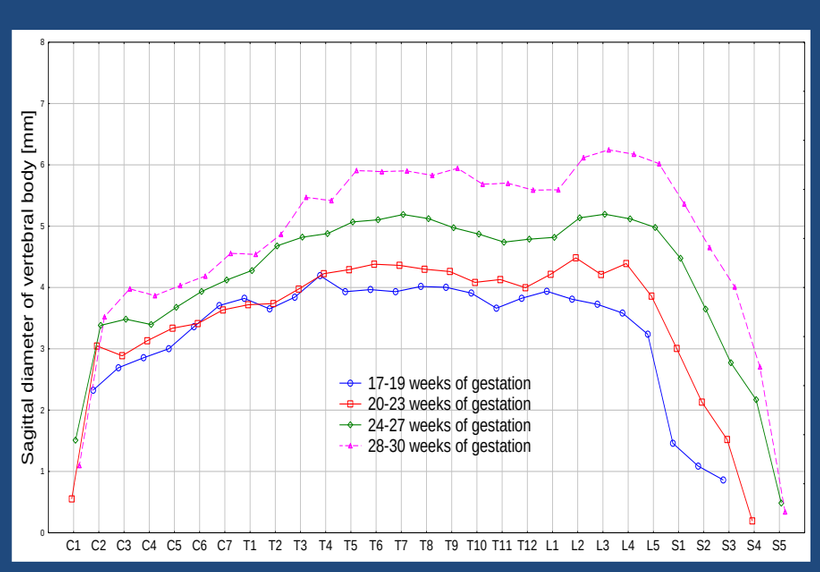
Results:



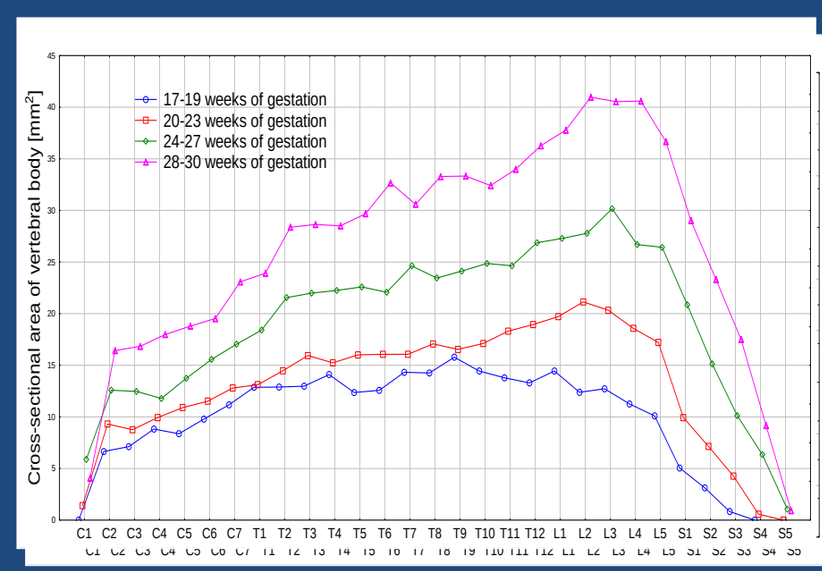
Height of vertebral body



Transverse diameter of vertebral body



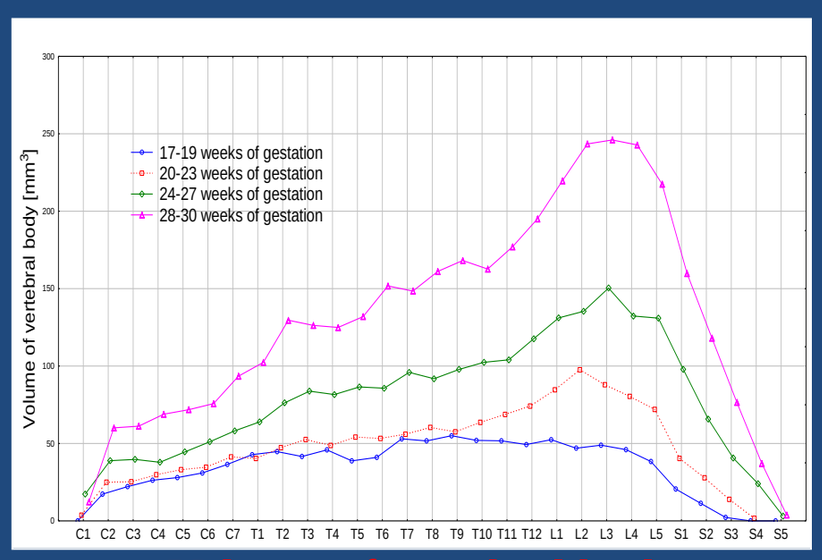
Sagittal diameter of vertebral body



Cross-sectional area of vertebral body

Conclusions:

1. There is a sharp increase in size of vertebral bodies between the atlas and the axis, and a sharp decrease in size within the sacral spine.
2. The vertebral body growth is characterized by maximum values in sagittal diameter for T7, in transverse diameter for L1, in height for L2, and in both cross-sectional area and volume for L3.



Volume of vertebral body