Vocal Tract Length Development During the First Two Decades
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ABSTRACT: The vocal tract length (VTL) increases more rapidly from birth to adolescence than it does for adults, but at a slower rate than expected. This study measured the developmental changes of the vocal tract length in a group of 180 children and compared the relative changes of the vocal tract length with the growth of the various structures with VTL. Measurements were linear distances from a fixed point on the vocal tract (nasal cavity) to the closest point on the oral cavity (stomach). The vocal tract length was measured twice at 3 months, 6 months, 1 year, 2 years, 3 years, 4 years, 5 years, 6 years, 7 years, 8 years, 9 years, 10 years, 11 years, 12 years, and 13 years. As expected, the vocal tract length increases rapidly from birth to adolescence than it does for adults, but at a slower rate than expected. The results of this study were compared with the growth of the various structures with VTL. The vocal tract length was measured twice at 3 months, 6 months, 1 year, 2 years, 3 years, 4 years, 5 years, 6 years, 7 years, 8 years, 9 years, 10 years, 11 years, 12 years, and 13 years. As expected, the vocal tract length increases rapidly from birth to adolescence than it does for adults, but at a slower rate than expected. The results of this study were compared with the growth of the various structures with VTL.