

GROWTH OF SHORT CHILDREN**L. Efremovska, L. Todorovska, V. Maleska***Department of Physiology and Anthropology, Medical Faculty Skopje, Macedonia
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In 3-year longitudinal study we evaluated the growth of 40 short children (SC) with height below 5th percentile, compared with NCHS reference (9.8 ± 1.5 y), and 40 healthy children (HC) with normal growth (9.6 ± 1.2 y). Following investigations were done: clinical status; biochemical analysis: growth hormone (GH), insulin-like growth factor I (IGF I) and insulin-like growth factor binding protein3 (IGFBP3); and 15 anthropometric parameters. Children with height above 5th percentile after adjustment for parent's stature (regression equations of Himes) were treated like genetically short. Genetically SC had proportional growth retardation and higher height velocity, compared to not genetically SC. Mean final height was + 0.6 SDS in genetically SC and + 0.2 SDS in not genetically SC (sex differences were not significant). Mean GH, IGF I and IGFBP3, were 1.6 ± 0.9 , 410 ± 139.1 and 2500 ± 857.3 ng/ml in genetically SC; and 7.2 ± 3.8 , 120 ± 98.2 and 4300 ± 1434 ng/ml in non genetically SC, compared with HC (2.8 ± 1.5 , 340 ± 121.4 and 2800 ± 860 ng/ml, respectively). Genetically SC has significantly different growth pattern and imbalance between growth stimulatory and inhibitory factors, compared with SC who are not genetically short.

