

Relationship between serum growth hormone binding protein levels and height in young men

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The biochemical mediators responsible for variations in stature among normal subjects are largely unknown. To obtain some initial information about potential endocrine factors, we measured the serum concentrations of GH, IGF-1, IGFBP-3 and GHBP in healthy young men shorter than 159 cm and taller than 187 cm. We studied 14 volleyball and basketball players (tall group), and 14 jockey students from a horse racetrack (short group). A careful medical history was taken, including dietary intake, and physical examination with special attention to the possible presence of genetic stigmata was performed. Serum prealbumin was determined as an index of nutritional status. A buccal smear was performed to exclude Klinefelter's syndrome. The BMI and serum prealbumin levels were comparable in both groups of individuals. The nutritional survey, however, revealed that the tall subjects had a higher intake of calories (42.2 ± 11.2 vs 30.1 ± 15.15 kcal/kg, $p < 0.05$), and protein (1.5 ± 0.6 vs 0.8 ± 0.4 mg