

## Original Paper

# The causes of short stature among children in Gorgan-Iran

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### Abstract

**Background and Objective:** Short stature among children is often due to physiological causes but it can be a sign of important and curable diseases. Thus early detection of problem, before epiphyseal closure, is critical. This study was done to determine the cause of short stature among children in Gorgan-Iran.

**Materials and Methods:** This cross-sectional research study was done on 100 children of 6-14 years of age during 2005 in Gorgan-Iran. Children were selected by census. Demographic character of children, history of serious disease, prematurity, blood and provocative growth hormone tests, physical examination, wrist radiography and standard deviation score (SDS) were recorded for each child. Data were analyzed by t-student and chi-square tests.

**Results:** The finding of this study showed that most children with short stature was girl (66%). mean±SD of calendar and bone age of female children was 10.4±2.25 and 8.4±2.32 year, respectively. The most frequent causes of short stature were constitutional (57%), Growth hormone deficiency (30%) and familial causes (8%). Mean±SD of calendar and bone age of males children was 10.79±2.32 and 7.89±2.19 years. Children with growth hormone deficiency had lower bone age and children with constitutional short stature had higher standard deviation score than others. (P<0.05).

**Conclusion:** This study showed that since growth hormone deficiency was one of the common and important pathologic causes of short stature. Therefore growth hormone determination and therapy is recommended, after elimination of familial and constitutional factors.

**Keywords:** Children, Age, Short stature, Familial factor, Constitutional factor, Growth hormone deficiency

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Received 20 Aug 2007

Revised 5 Aug 2008

Accepted 5 Aug 2008