

# Maxillofacial Radiology 177

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This twenty seven year old mother presented at the Department of Maxillofacial Surgery with the main complaint of a throbbing pain on the right side of her face, experienced over the last three months. She also informed the clinician that she had delivered a baby son six months previously and that she was in good health. Clinical examination revealed that the 16 had extensive caries with an apical abscess. Advanced underlying periodontal disease was present in both jaws. No signs of mental retardation were observed. What are the important clinical and radiological findings and what is your provisional diagnosis?



Fig. 1



Fig. 2



Fig. 3



Fig. 4

## INTERPRETATION

The most important clinical findings are a short stature, an abnormally thick facial skin which shows excessive wrinkling (Fig. 1), which was also discernible in the fingers (Fig. 3). The pantomograph (Fig. 2) shows underlying periodontal disease and radiological features of apical infection on the 16. The lateral skull radiograph (Fig. 4) shows a normal sella turcica. A provisional diagnosis of pituitary dwarfism I was made. Pituitary dwarfism is a condition in which the growth of the individual is very slow or delayed, resulting in less than normal adult stature. There is decreased bodily growth due primarily to a deficiency of growth hormone (GH). The end result is a normally proportioned but little person, because the height and the growth of all other structures of the individual are decreased. It is estimated that between one in 14,000 and one in 27,000 babies born each year have some form of dwarfism.

In 2004, more than 20,000 children in the United States were receiving supplemental GH therapy. It is estimated that about one quarter had organic causes of GH deficiencies. There appears to be no racial or ethnic component to pituitary dwarfism, but males seem to be affected more often than females. Dwarfism with growth retardation becomes evident during the first two years of life. The voice may be shrill and piping. Mental retardation is normally not present. The basic defect is unknown but it is related to a deficiency of growth hormone. This condition is autosomal recessive and the life spans of the affected individuals probably does not deviate significantly from normal. Premature and excessive facial wrinkling plus shrill voice are cardinal features of this condition.

## Reference

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2. Richard M. Goodman, Robert J. Gorlin: Atlas of the Face in Genetic Disorders. 2<sup>nd</sup> ed. CV Mosby Company, Saint Louis, 1977: 11, 330-1.