# I. GENETIC DISEASES

Ectodermal Dysplasia

Cherubism

Osteogenesis Imperfecta

Osteopetrosis

Cleidocranial Dysostosis

Craniofacial Dysostosis (Crouzon's Syndrome)

Mandibulofacial Dysostosis (Treacher Collins Syndrome)

Achondroplasia

Clefts of the Lip and Palate

Pierre Robin Syndrome

Sickle Cell Anemia

Thalassemia

Hemifacial Hypoplasia

Hemifacial Hypertrophy

Gardner's Syndrome

Fig. 18-1

Ectodermal dysplasia. Patient exhibiting hypodontia.

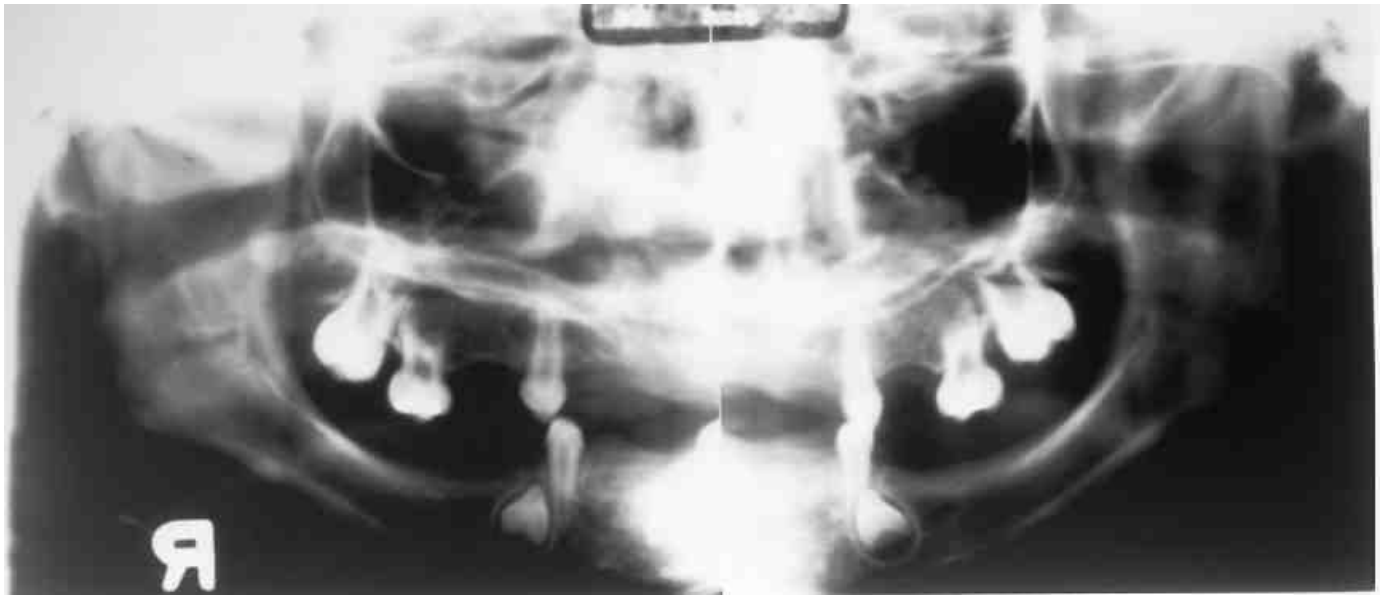


Fig. 18-2

Cherubism. Panoramic radiograph showing extensive multilocular radiolucent lesions of the mandible and maxilla.

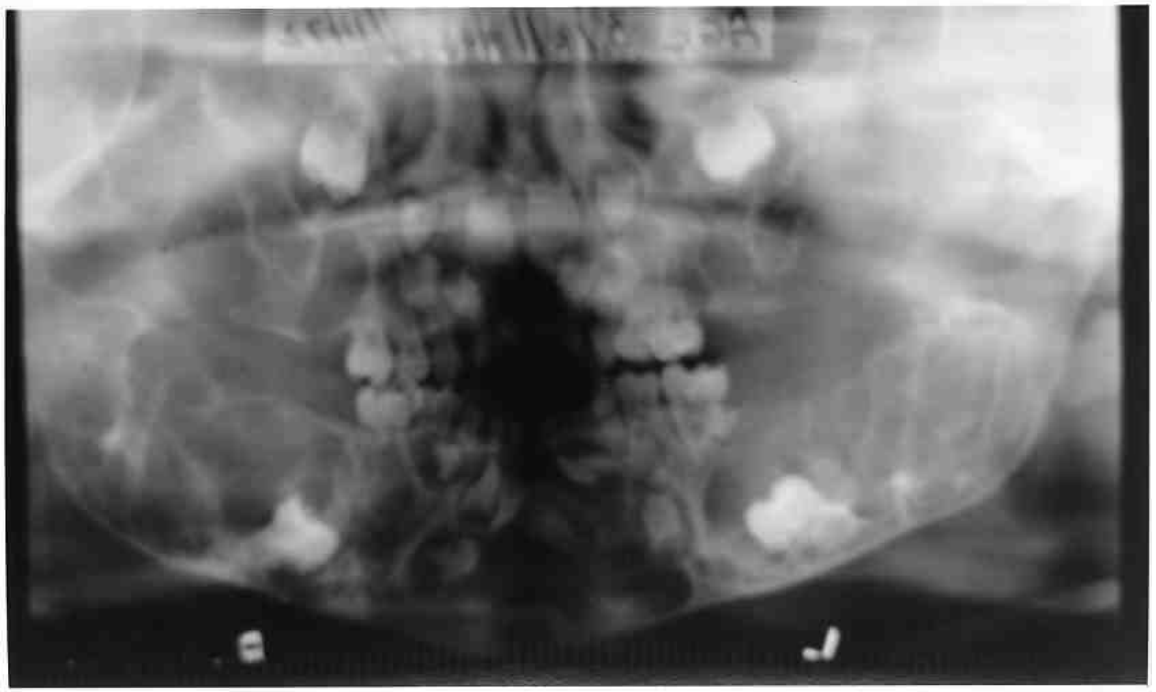
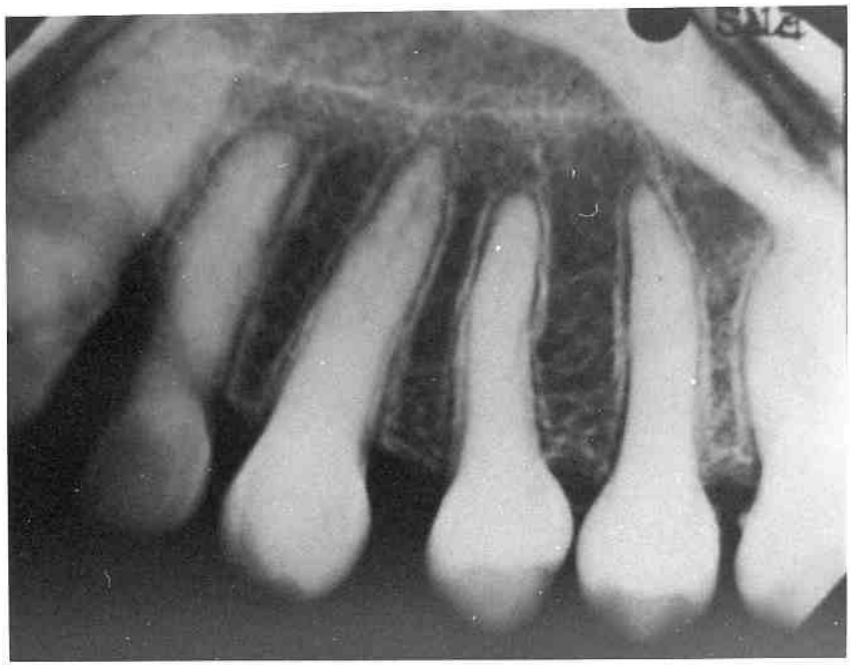


Fig. 18-3



Osteogenesis imperfecta. The dental changes are similar to those of dentinogenesis imperfecta: teeth constricted near the cervical portions, thin and short roots, calcification of pulp chambers and root canals. Clinically, the crowns are of opalescent hue.

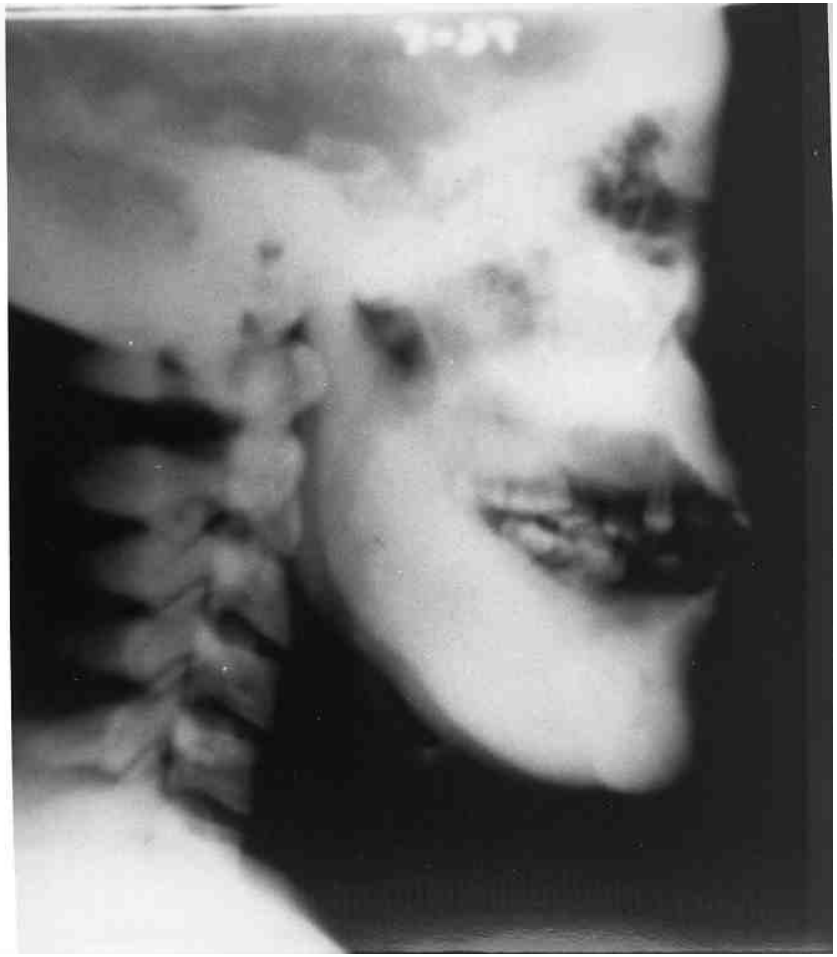


Fig. 18-4

Osteopetrosis. Lateral skull radiograph shows dense calcification of jaws and skull, resulting in loss of trabeculae. All the sinuses are obliterated with bone.

Fig. 18-5

Cleidocranial dysostosis. In the absence of clavicles, the patient can bring the shoulders forward towards the midline. Note the underdeveloped maxilla.

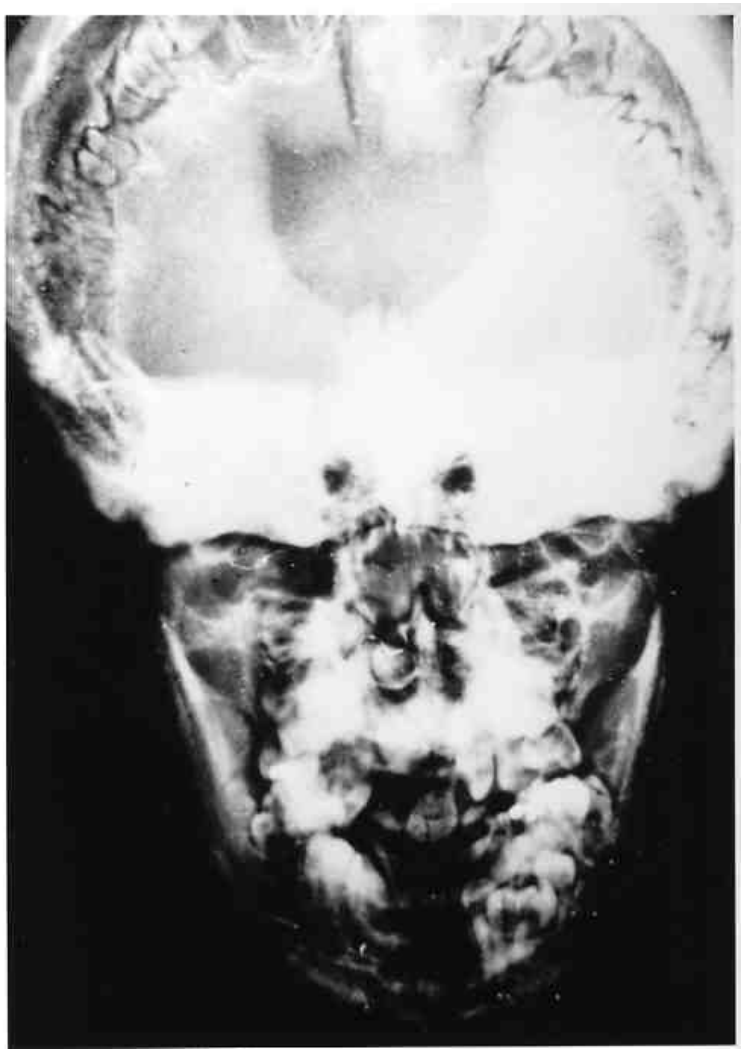


Fig. 18-6

Cleidocranial dysostosis. Postero-anterior skull radiograph shows delayed closure of sutures and fontanelles, and presence of multiple wormian bones. Multiple supernumerary teeth are present.

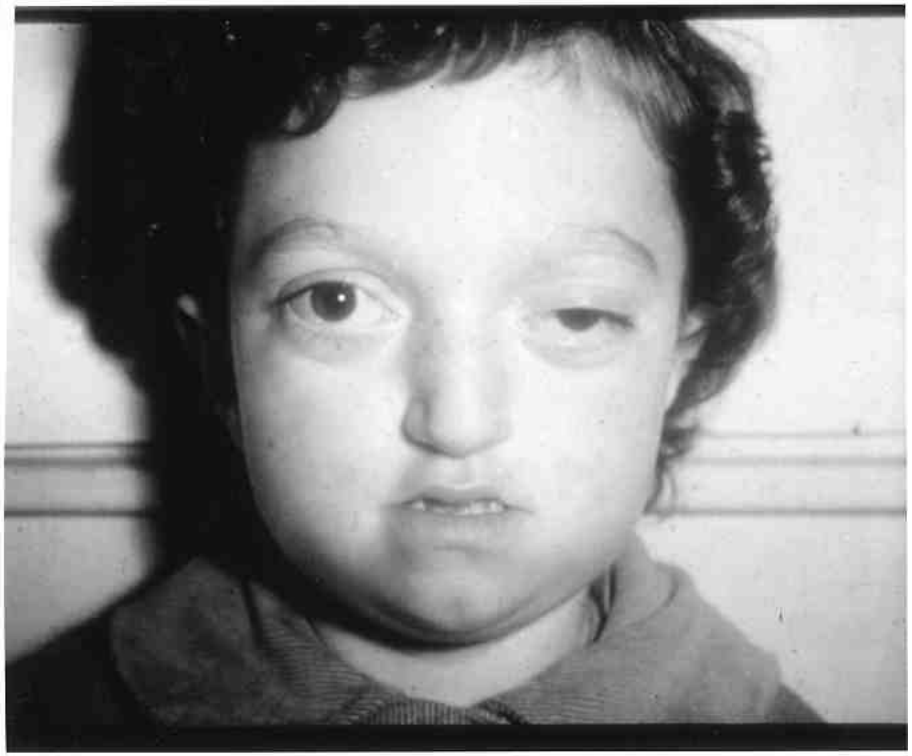
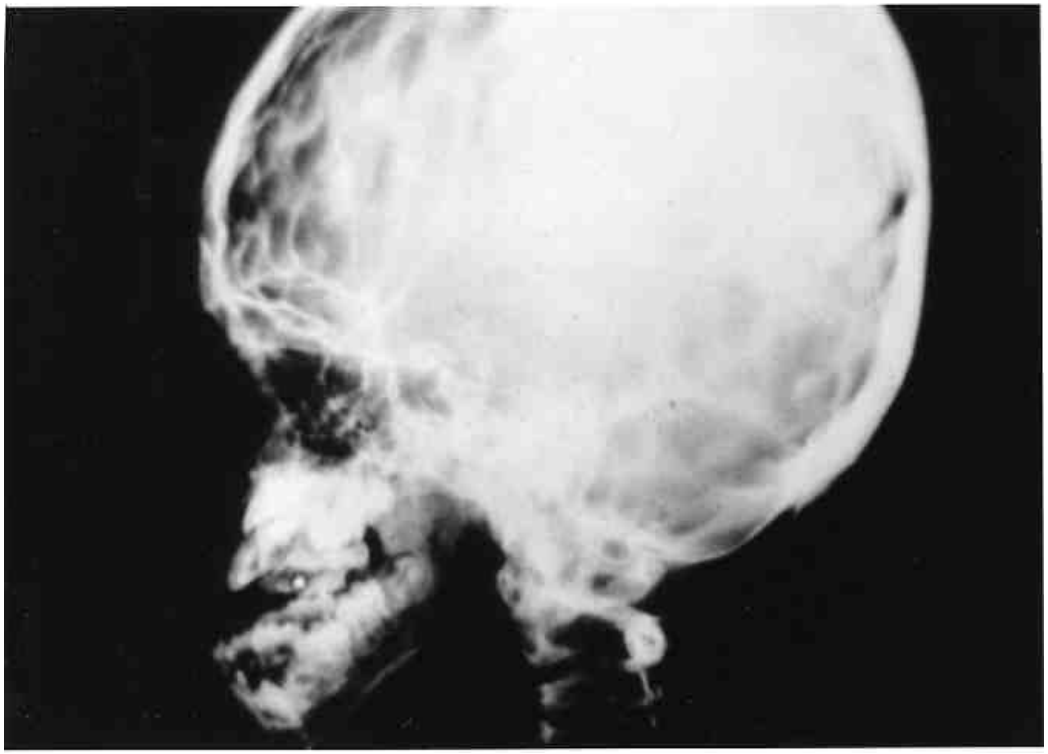


Fig. 18-7

Cruzon's disease (craniofacial dysostosis). Facial malformation shows hypoplasia of maxilla with mandibular prognathism. Eyes exhibit hypertelorism, exophthalmos and divergent strabismus.

Fig. 18-8



Cruzon's disease (craniofacial dysostosis). Lateral skull radiograph shows early closure of all cranial sutures. Note the prominent digital markings.

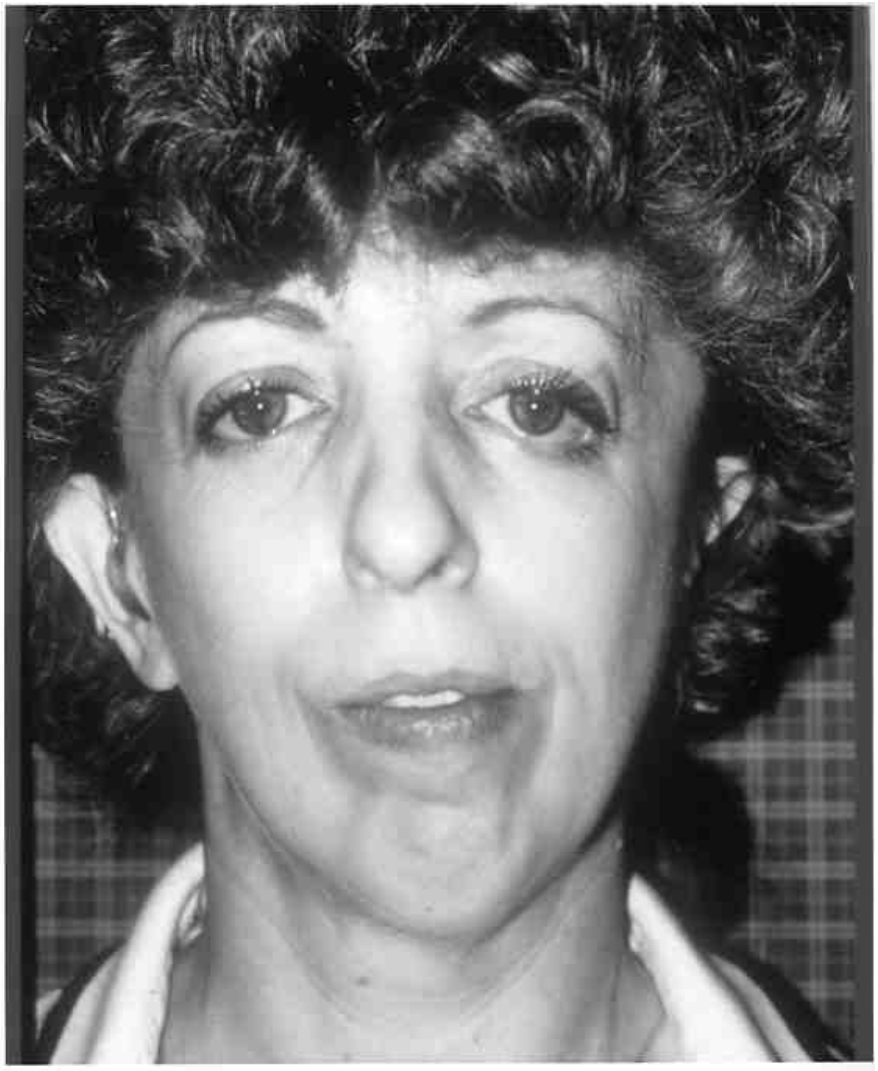


Fig. 18-9

Treacher Collins syndrome (mandibulofacial dysostosis). Note the characteristic facial appearance: downward slanting of palpebral fissures, colobomas of outer third of lower eyelids, depressed cheek bones, receding chin, and a nose that appears relatively large.

Fig. 18-10

Achondroplasia. Patient shows extremities which are short in comparison with the torso. Achondroplastic dwarfism must not be mistaken with pituitary dwarfism; in the latter, the size of the limbs is in proportion to the size of the torso.

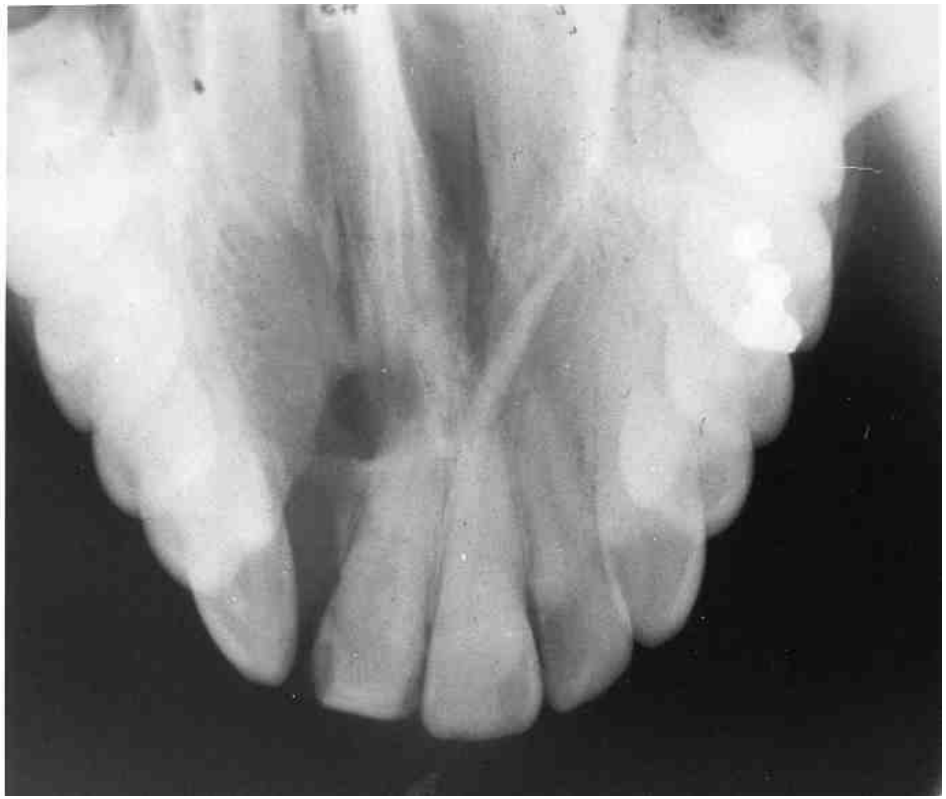
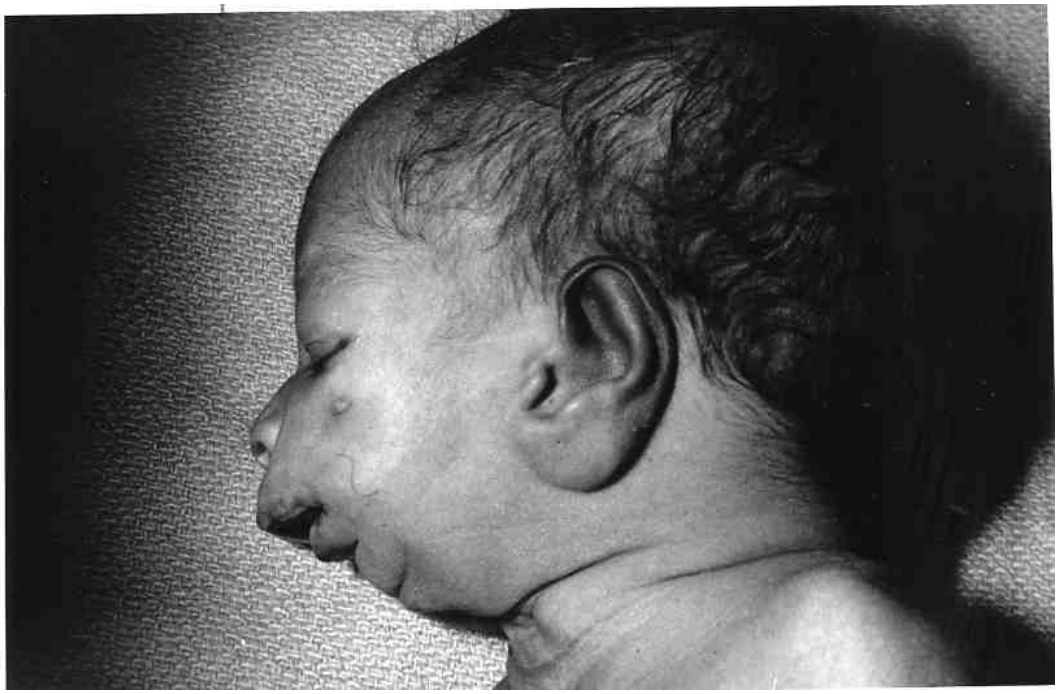


Fig. 18-11

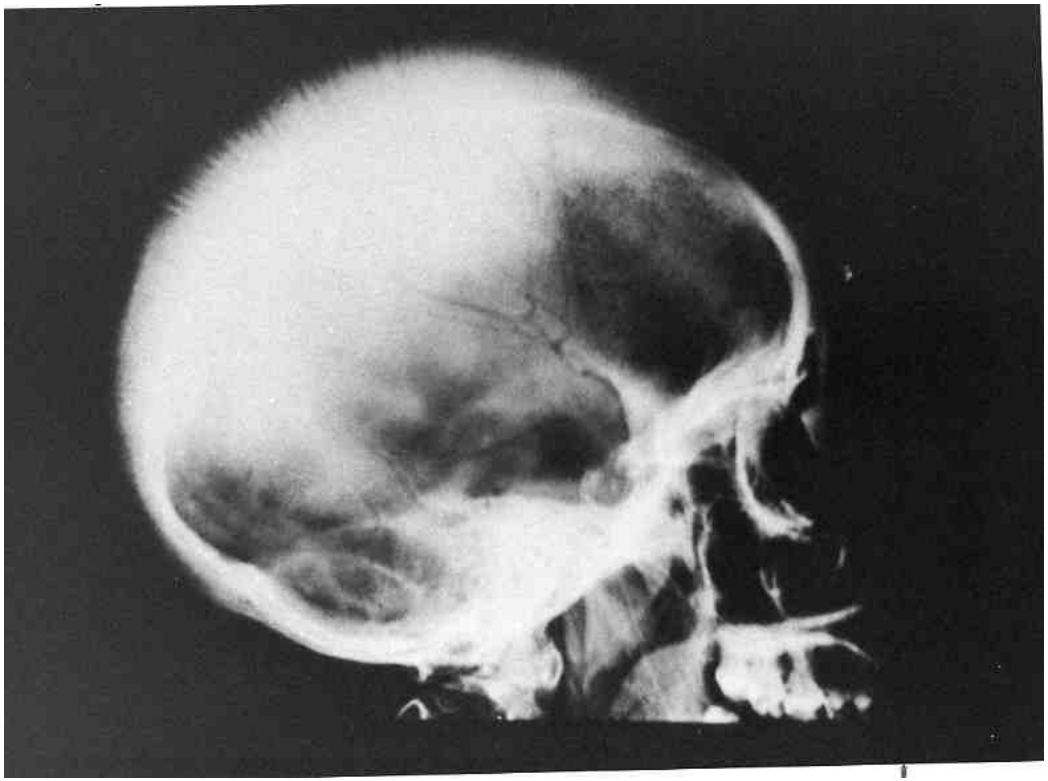
Cleft of the maxilla situated between the maxillary lateral incisor and canine.

Fig. 18-12



Pierre Robin syndrome. Infant exhibiting severe micrognathia of the mandible.

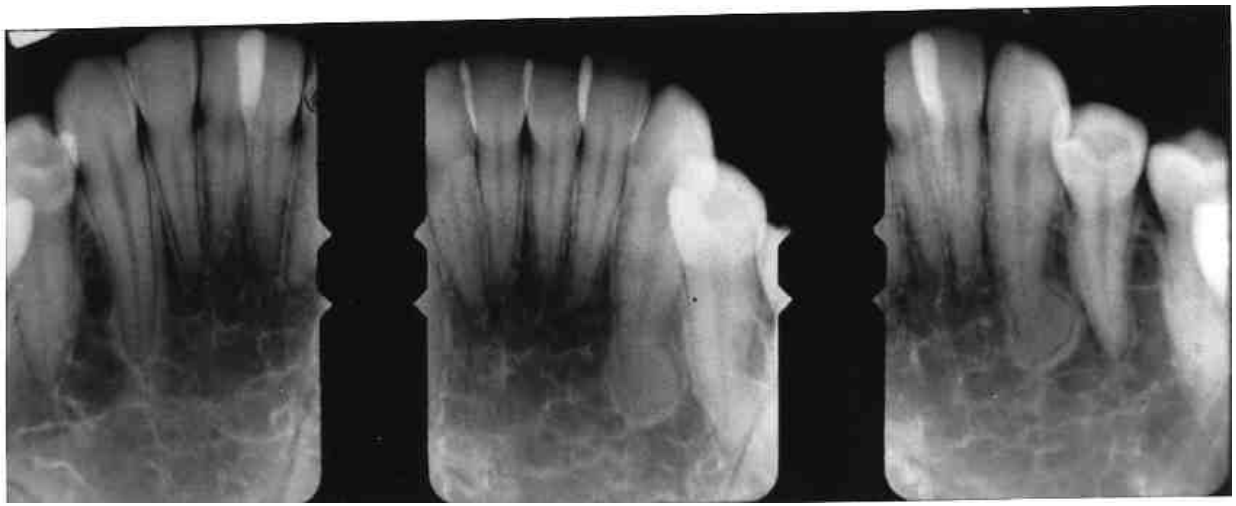
Fig. 18-13



Sickle cell anemia. Lateral skull radiograph shows thicker than normal cranial vault and linear markings of "hair-on-end" appearance.

Fig. 18-14

Sickle cell anemia. Enlarged marrow spaces with the trabeculae giving a "stepladder" appearance.



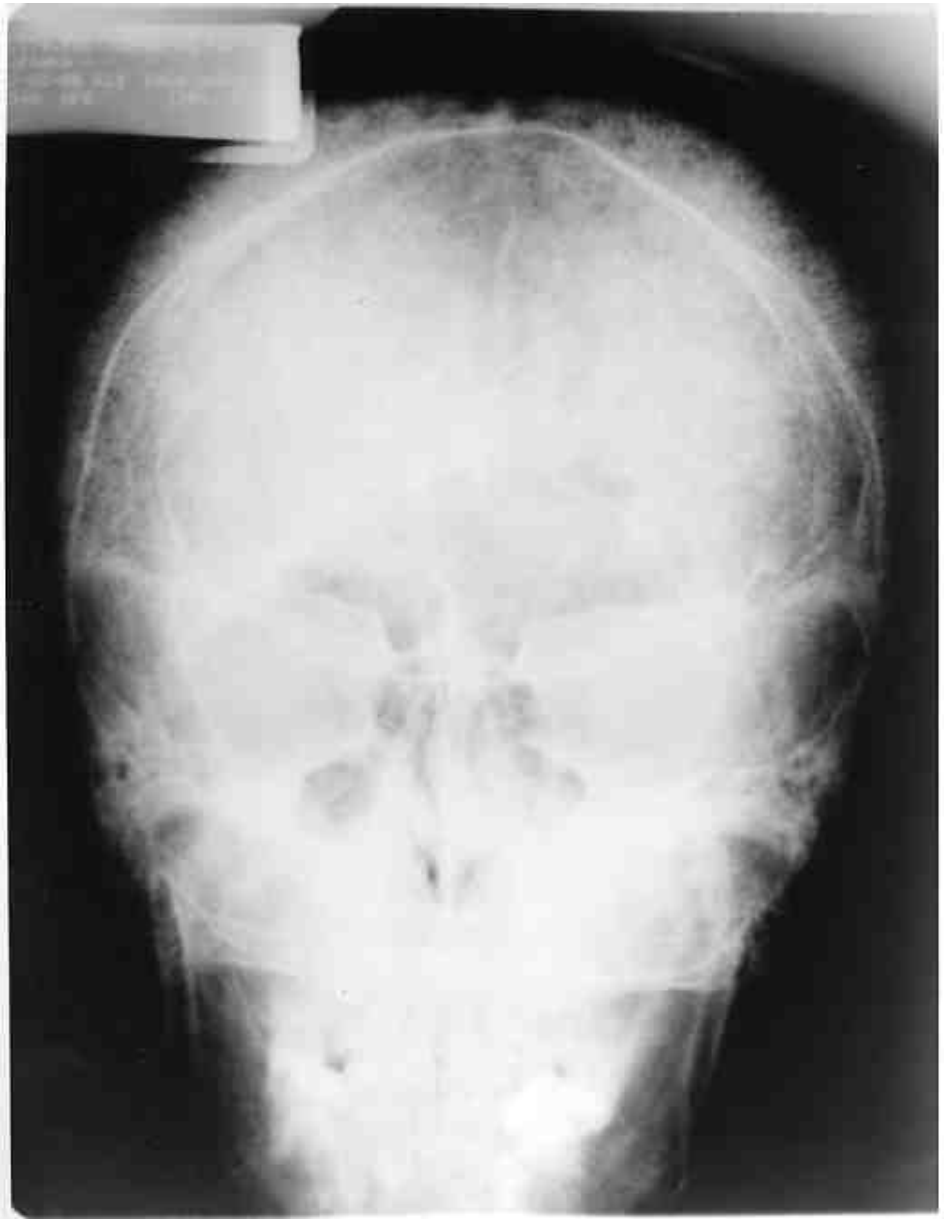
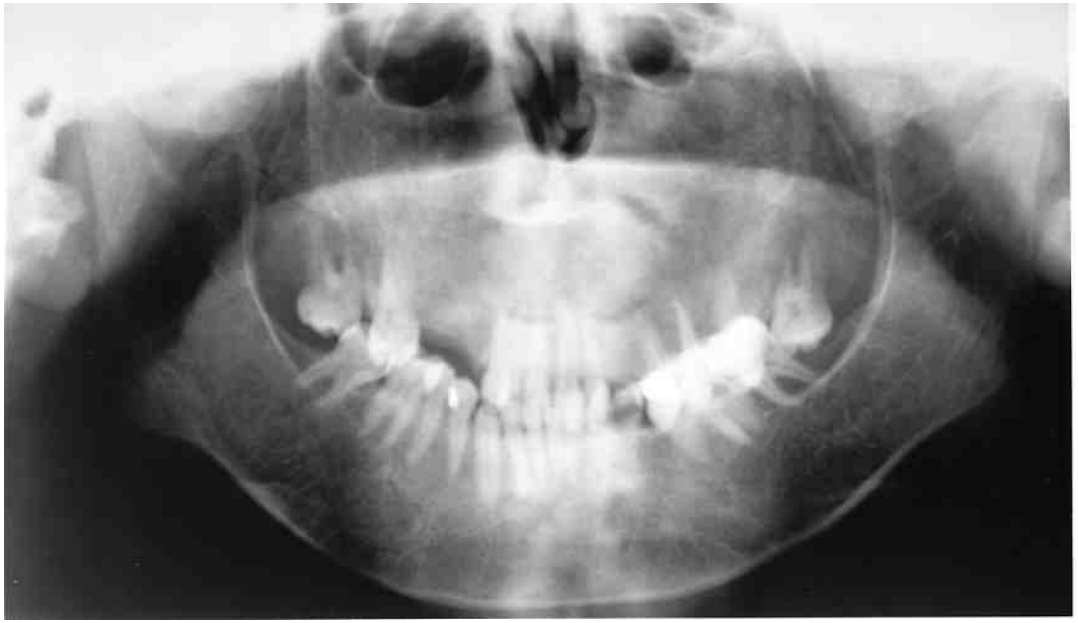


Fig. 18-15

Thalassemia. Postero-anterior skull radiograph shows the characteristic "hair-on-end" appearance.

Fig. 18-16

Thalassemia. Panoramic radiograph shows generalized rarefaction, thinning of cortical bone, and enlarged marrow spaces with thin trabeculation.



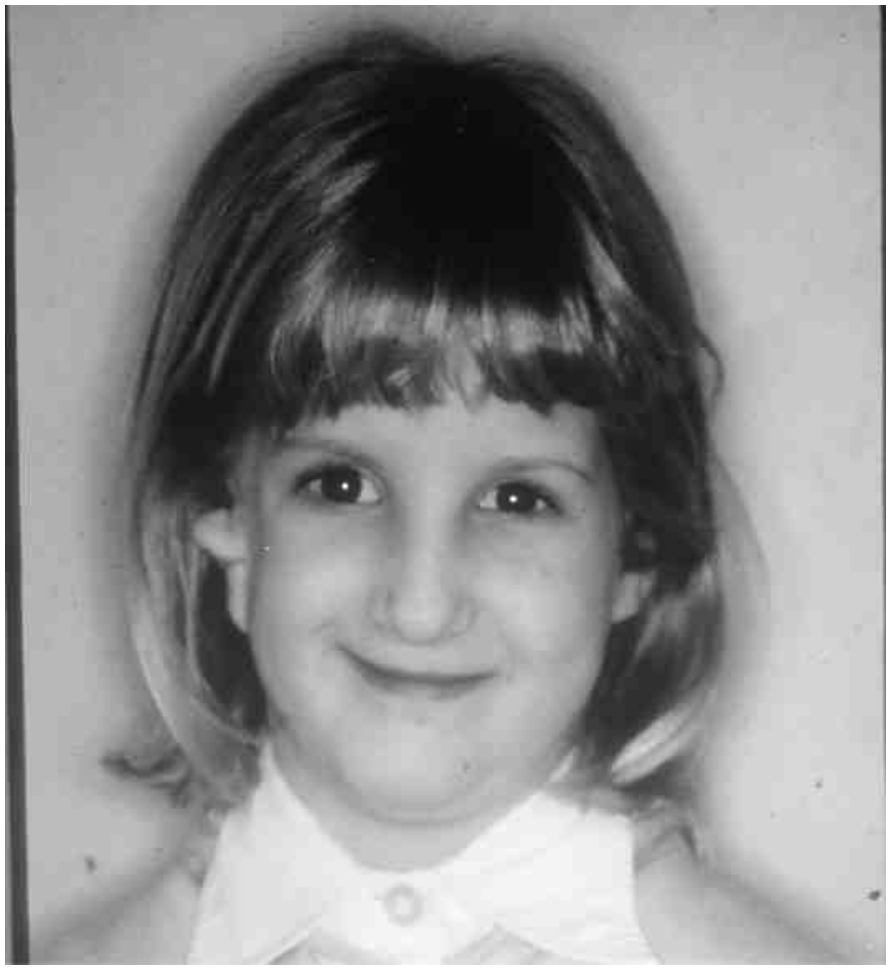
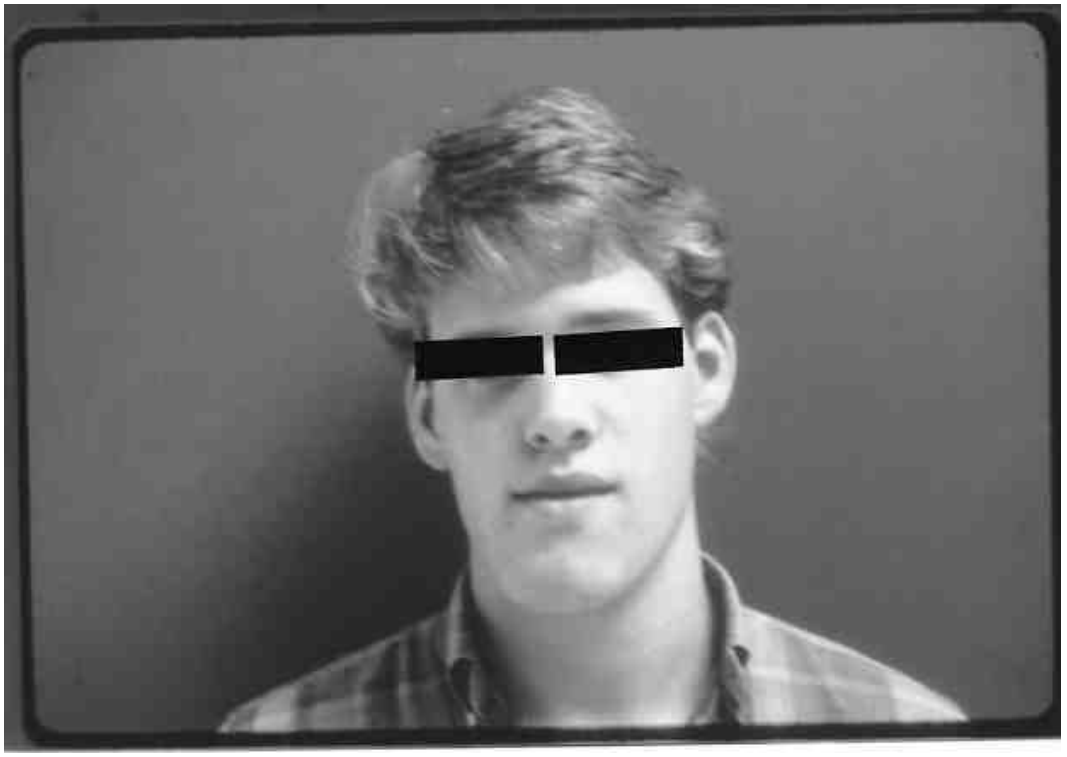


Fig. 18-17

Hemifacial hypoplasia. The affected side of the face is smaller than the normal side. Note the crumpled and distorted pinna of the external ear on the involved side.

Fig.18-18



Hemifacial hypertrophy. Facial asymmetry resulting from progressive growth of half of the face.

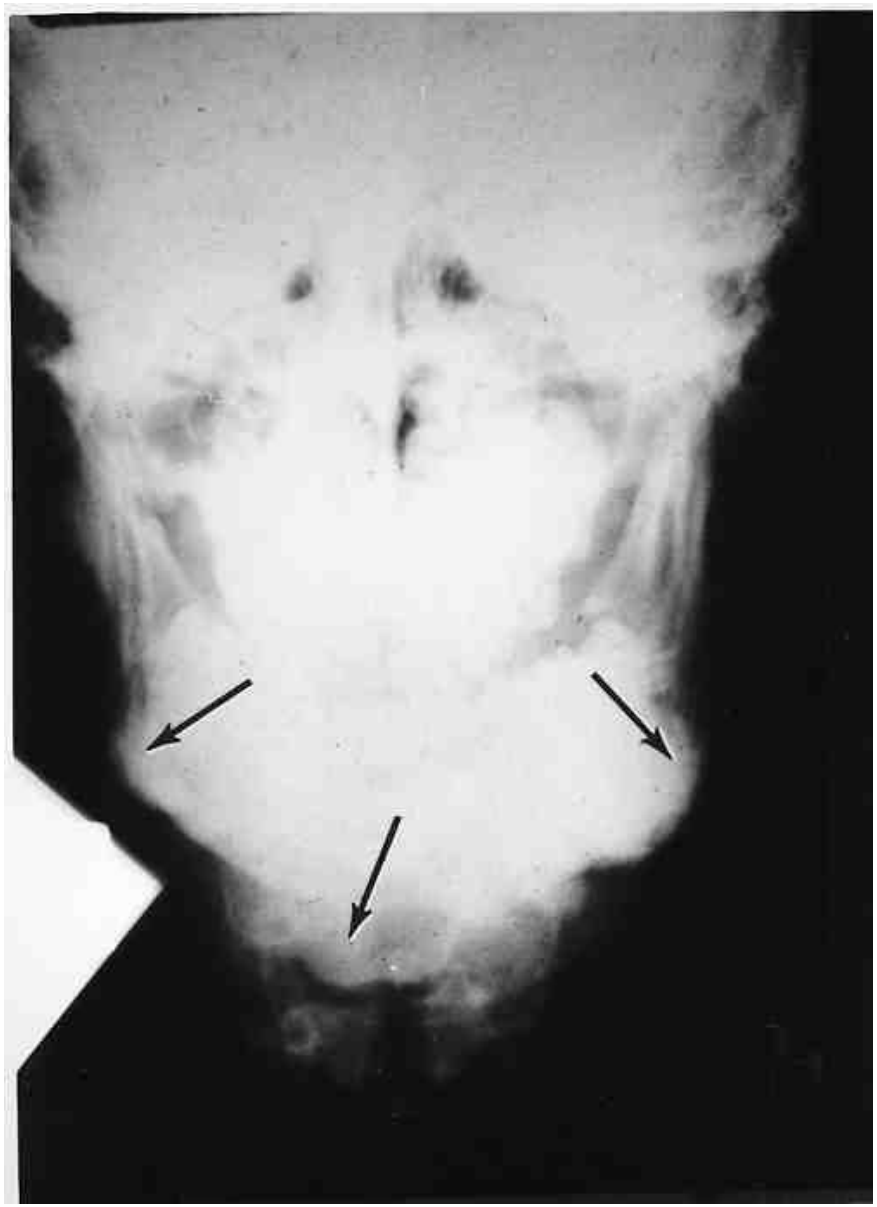


Fig. 18-19

Gardener's syndrome. Postero-anterior skull radiograph shows multiple osteomas (arrows).

# II. METABOLIC DISEASES:

Paget's Disease
Hyperparathyroidism
Hypoparathyroidism
Hyperpituitarism
Hypopituitarism
Hyperthyroidism
Hypothyroidism

Diabetes Mellitus
Cushing's Syndrome
Rickets and Osteomalacia
Hypophosphatasia
Osteoporosis
Scleroderma

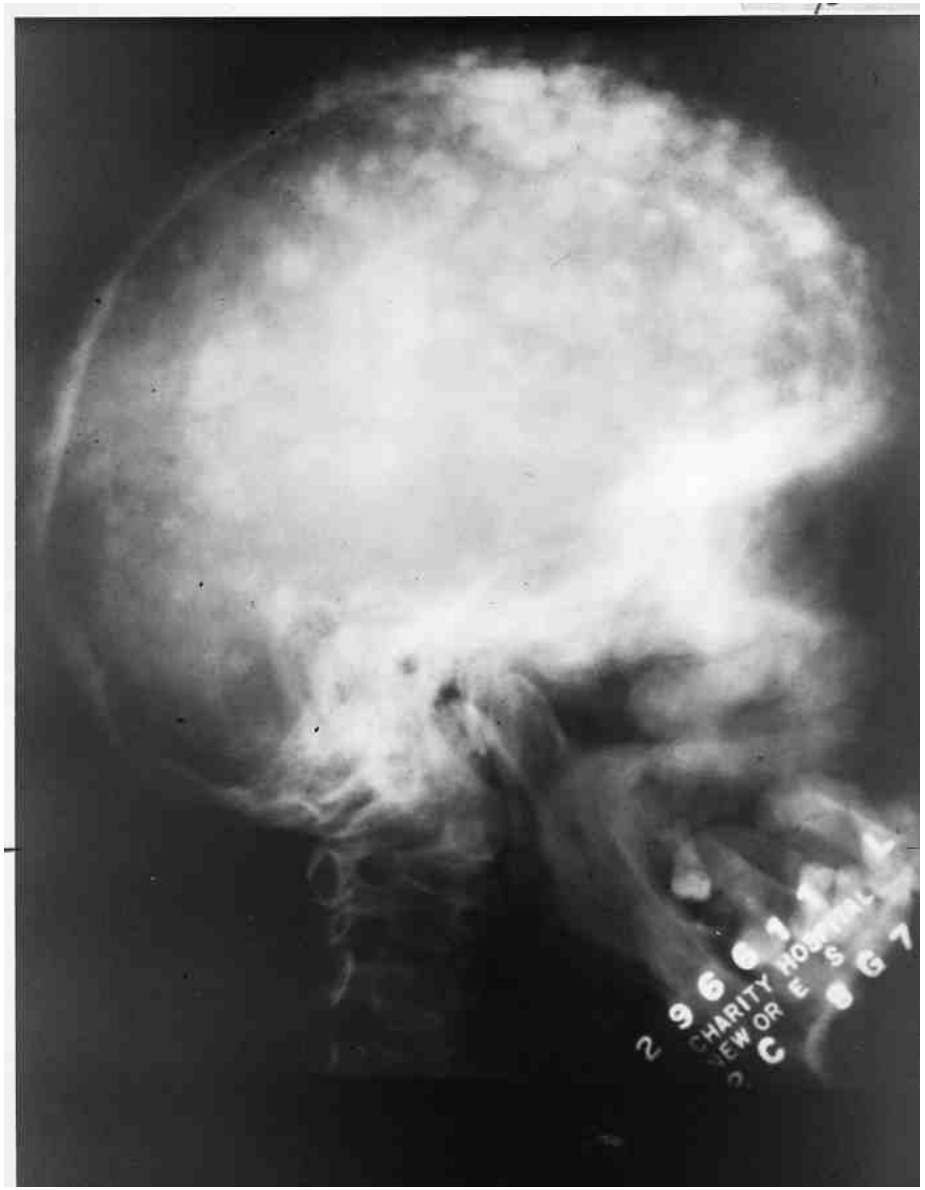


Fig. 18-20A

Paget's disease. Lateral skull radiograph shows patchy radiopacities giving the characteristic "cotton-wool" appearance.

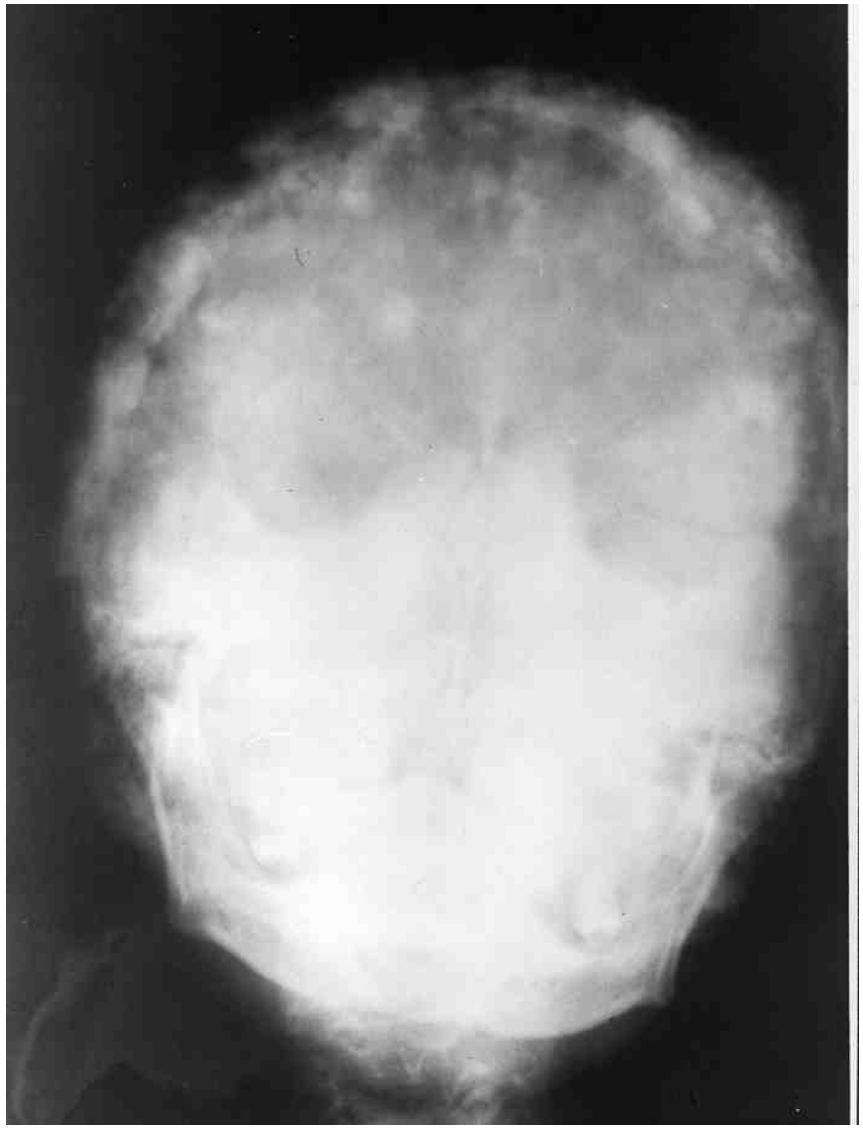
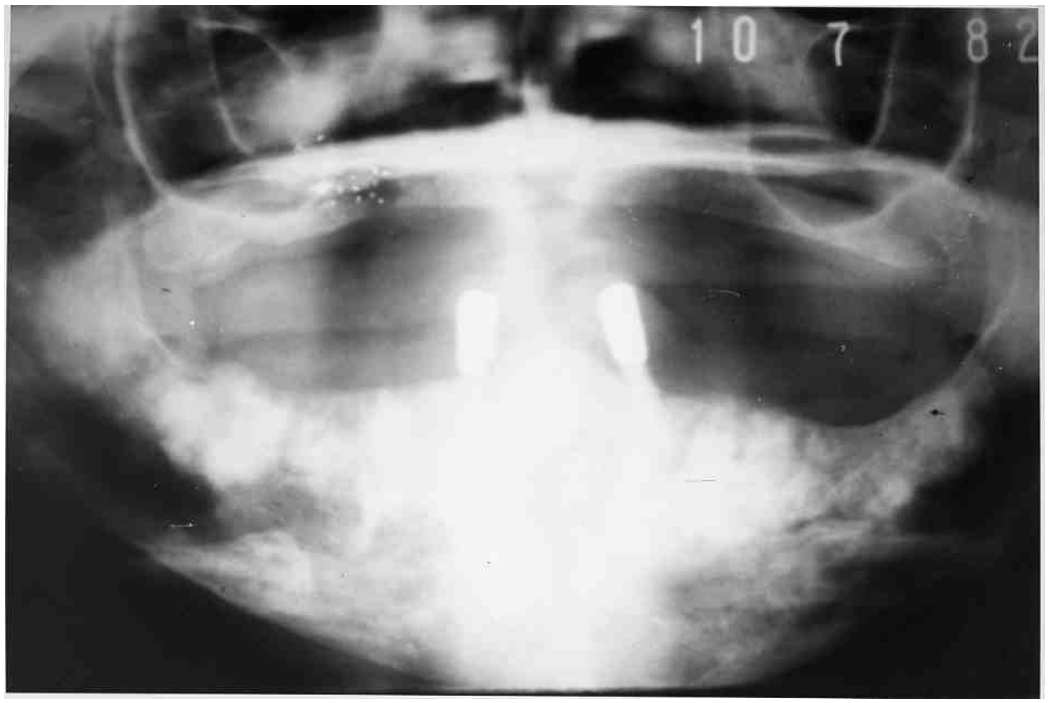


Fig. 18-20B

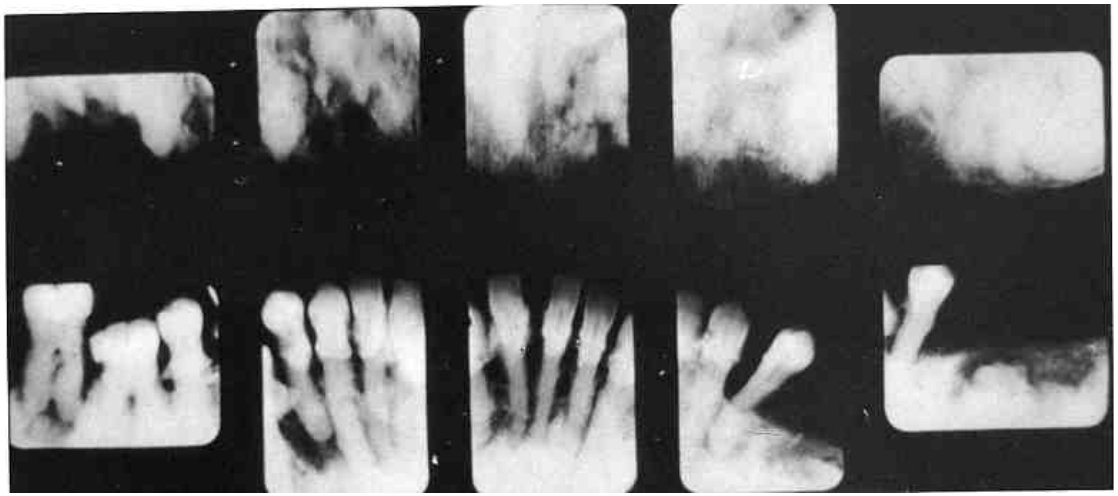
Paget's disease showing a "cotton-wool" appearance on a postero-anterior projection of the skull.

Fig. 18-21



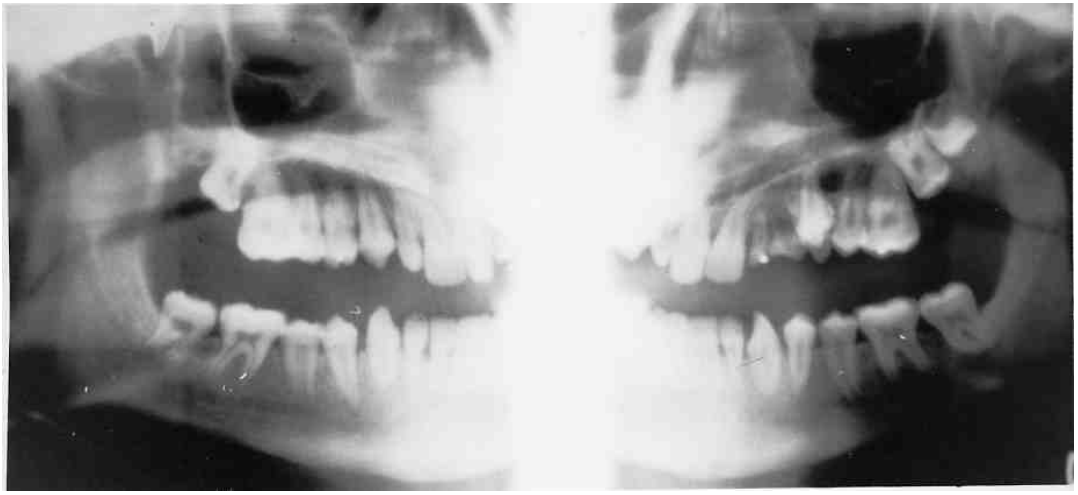

Paget's disease. Panoramic radiograph shows multiple radiopaque masses producing the characteristic "cotton-wool" appearance similar to that of florid osseous dysplasia.

Fig. 18-22



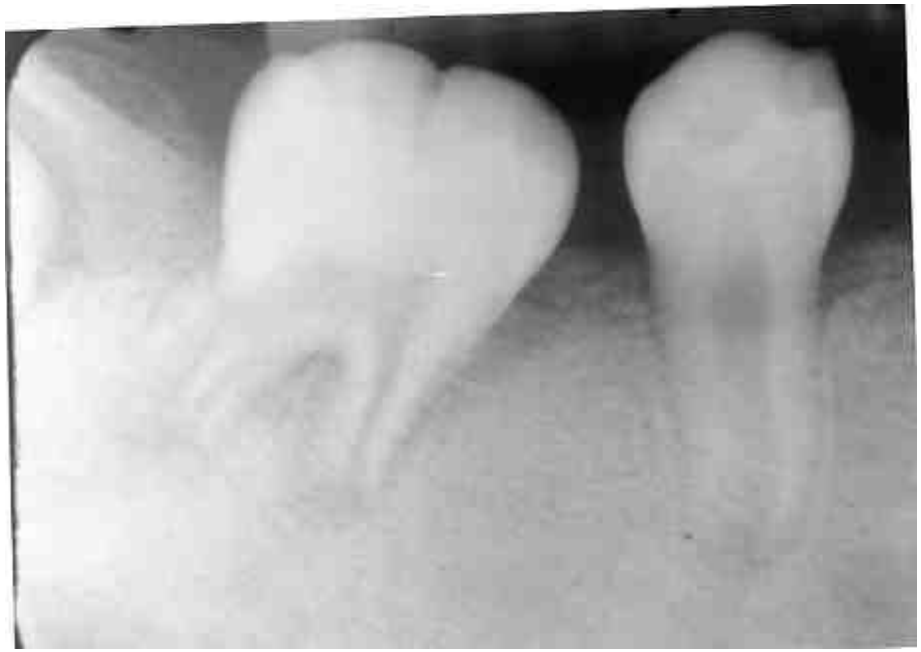
Paget's disease. Periapical radiographs show patchy radipacities of the jaws, spacing of teeth, loss of lamina dura and some hypercementosed teeth.

Fig. 18-23



Hyperparathyroidism. Panoramic radiograph shows generalized disappearance of lamina dura and reduction in radiographic bone density in both jaws.

Fig. 18-24



Hyperparathyroidism. Osteoporosis of bone is seen on the radiograph as having a ground glass appearance with loss of trabecular bone pattern. Also, there is loss of lamina dura.

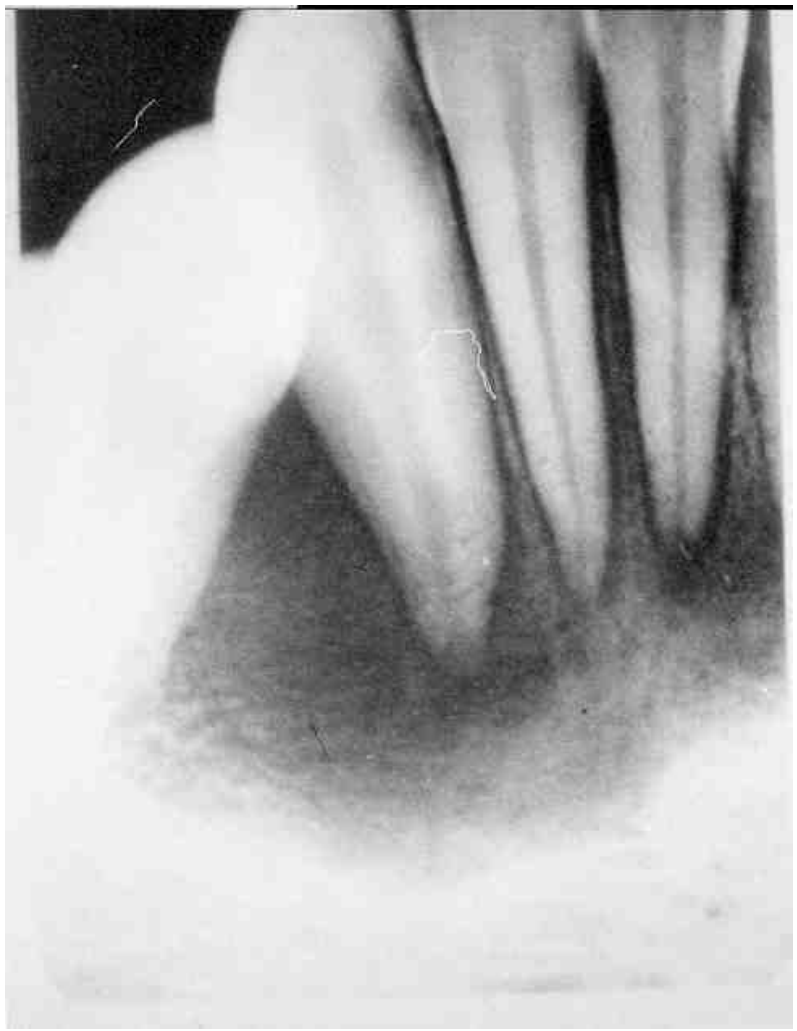


Fig. 18-25

Hyperparathyroidism. Central giant cell lesions known as "brown tumors" produce ill-defined radiolucencies and disappearance of lamina dura.

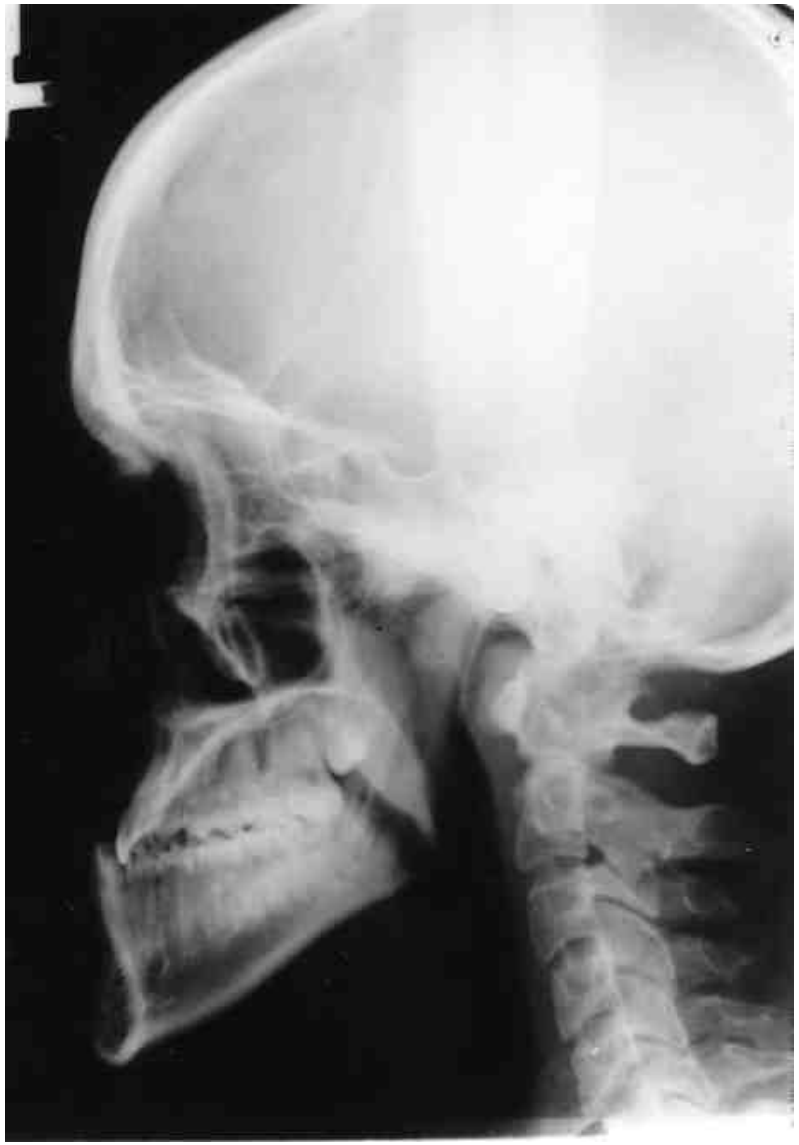


Fig. 18-26

Hyperpituitarism producing acromegaly. The main feature is the enlargement of the mandible, producing a Class III skeletal malocclusion.

Fig. 18-27

Pituitary dwarfism resulting from hypopituitarism. The individual is of small stature and proportionate body. Pituitary dwarfism must not be mistaken with achondroplastic dwarfism; in the latter, the extremities are short in comparison with the torso.

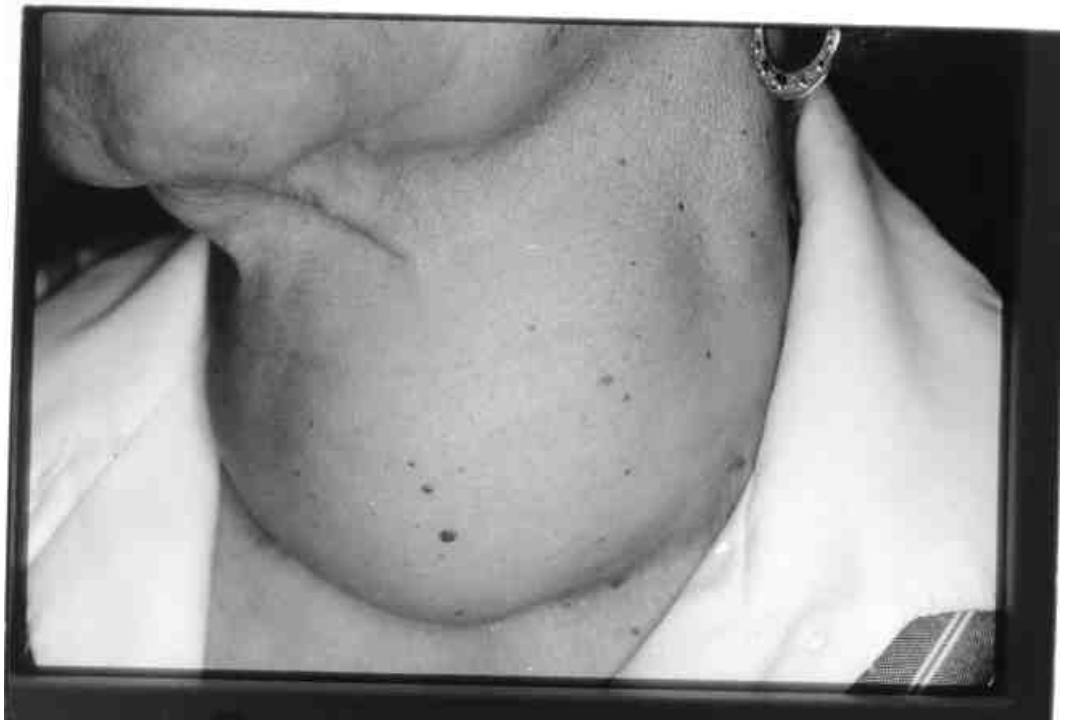


Fig. 18-28
Hyperthyroidism. Enlargement of the thyroid gland in a patient with hyperthyroidism.

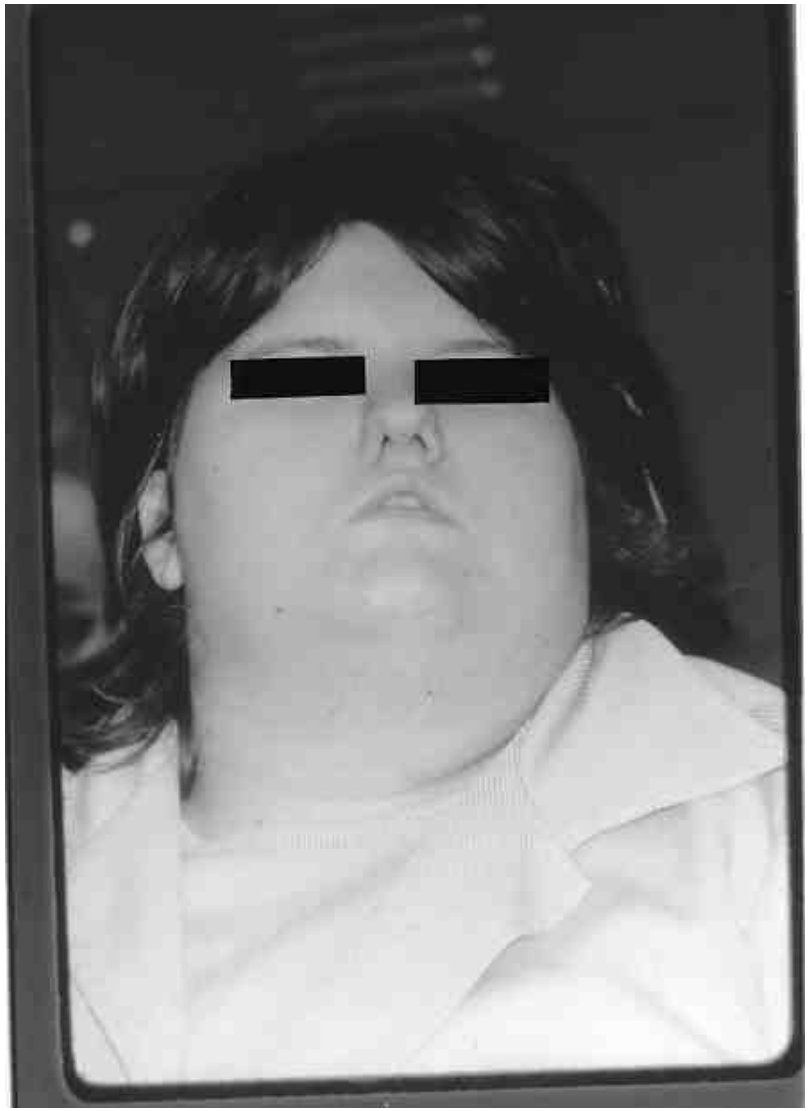


Fig. 18-29

Cretinism resulting from hypothyroidism. The individual has short, fat, puffy features, and an extremely large tongue causing separation of teeth.

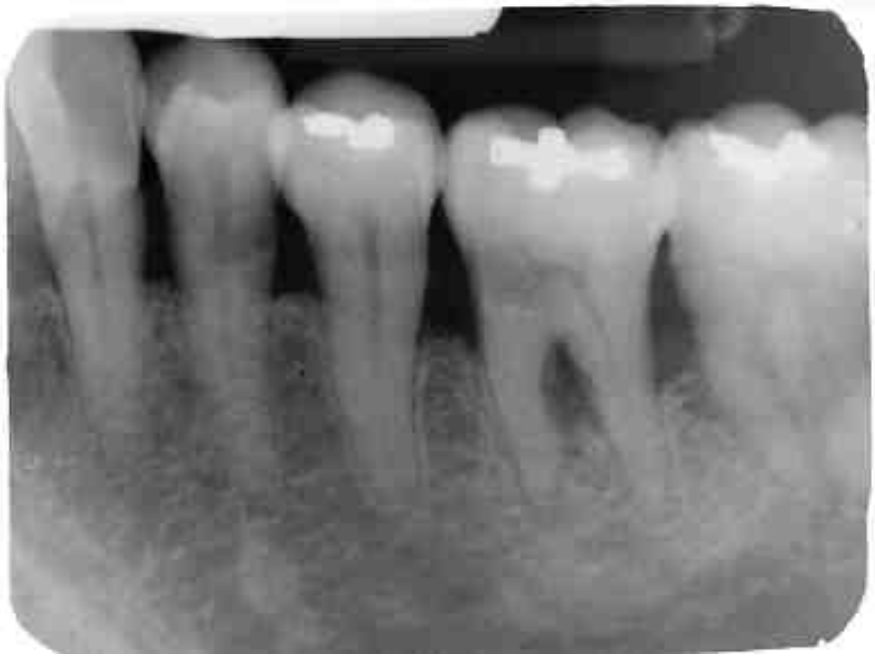
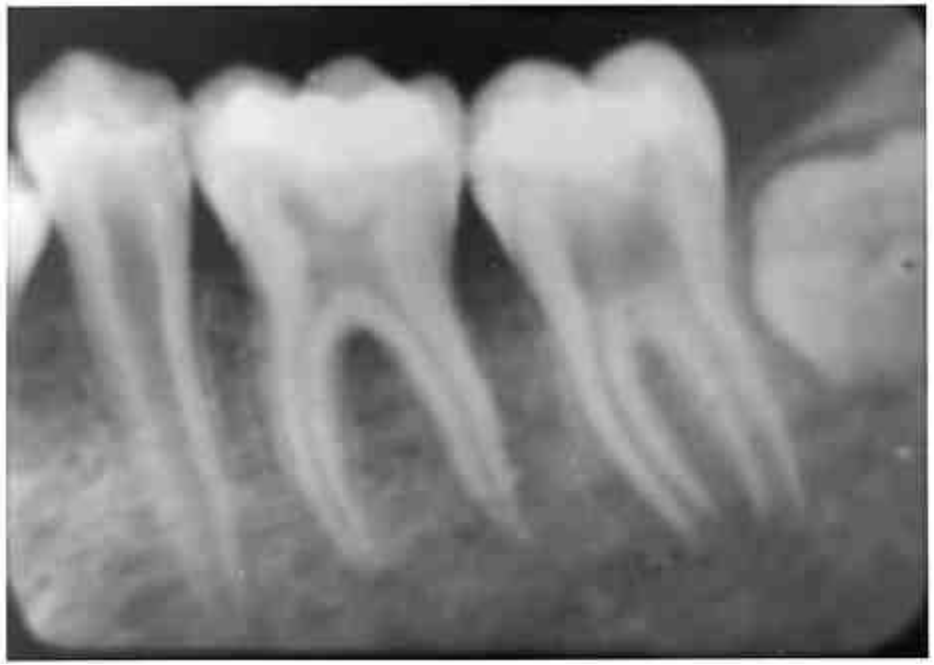


Fig. 18-30

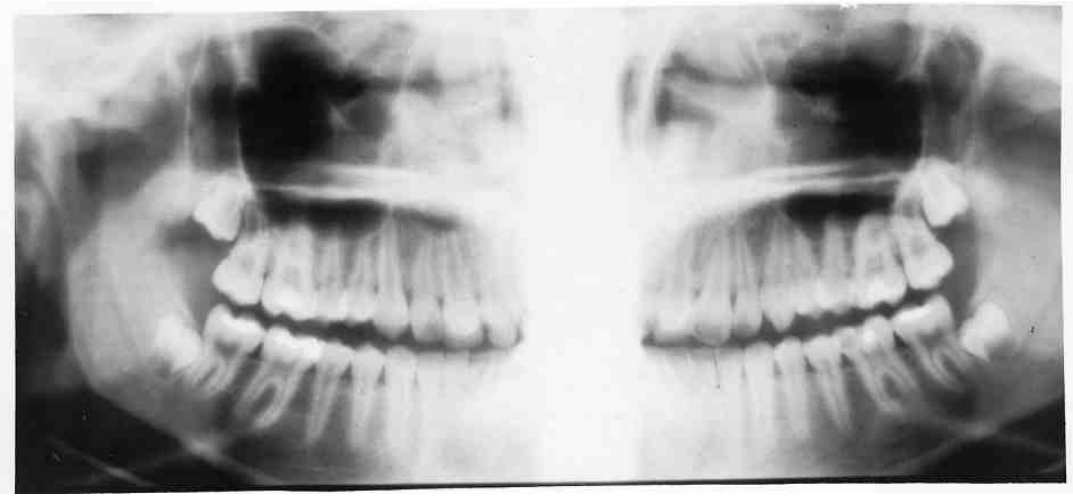
Diabetes mellitus. Uncontrolled diabetes mellitus shows loss of alveolar bone.

Fig. 18-31



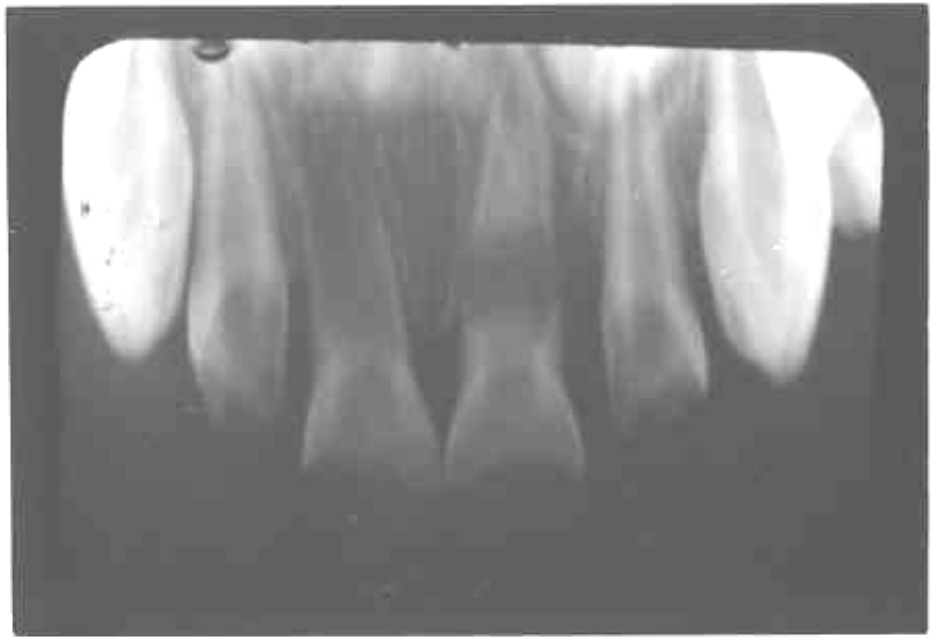
Rickets. Periapical radiograph shows rarefaction of bone and disappearance of lamina dura.

Fig. 18-32



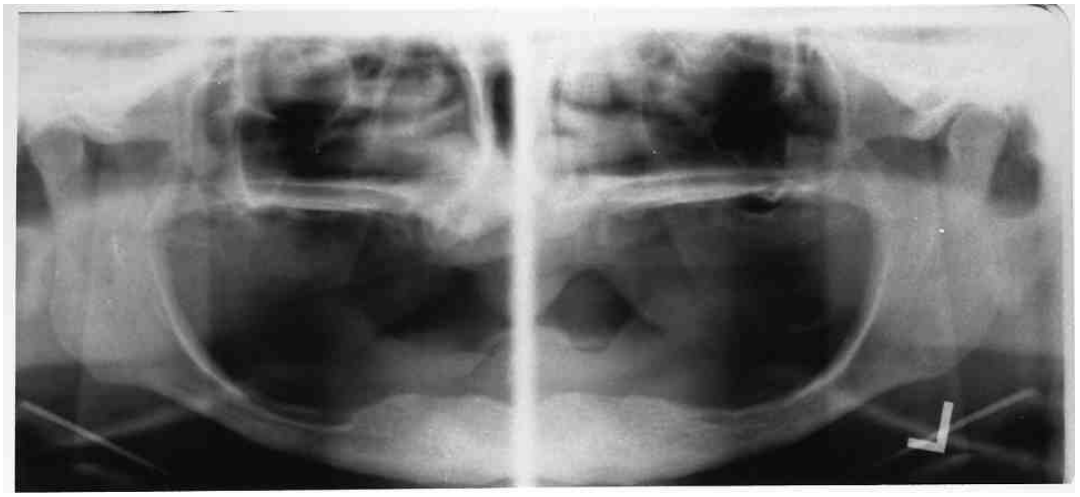
Osteomalacia. Panoramic radiograph shows osteoporosis of bone and disappearance of lamina dura.

Fig. 18-33



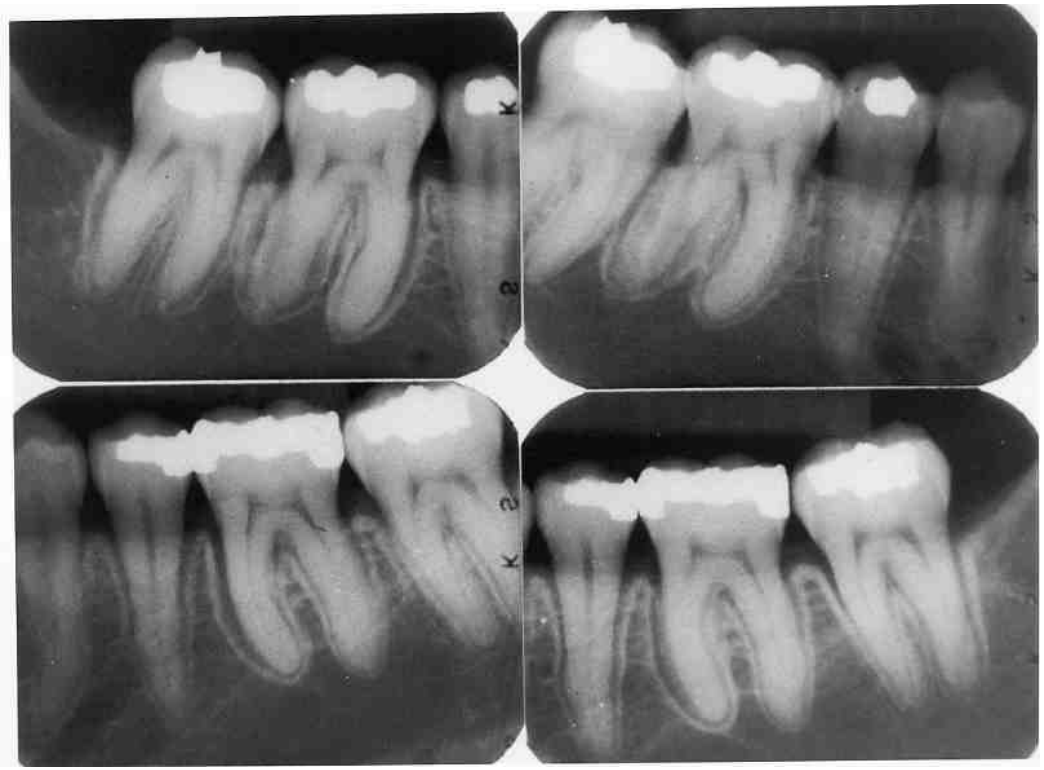
Hypophosphatasia. Teeth show thin enamel, thin root dentin, thin cementum, and large pulp chambers.

Fig. 18-34



Osteoporosis. Panoramic radiograph of an elderly female shows a reduction in the overall quantity of trabeculae in the cancellous bone. The cortical bone is thin and less dense.

Fig. 18-35



Scleroderma. Radiographs show generalized abnormal width of periodontal membrane space.

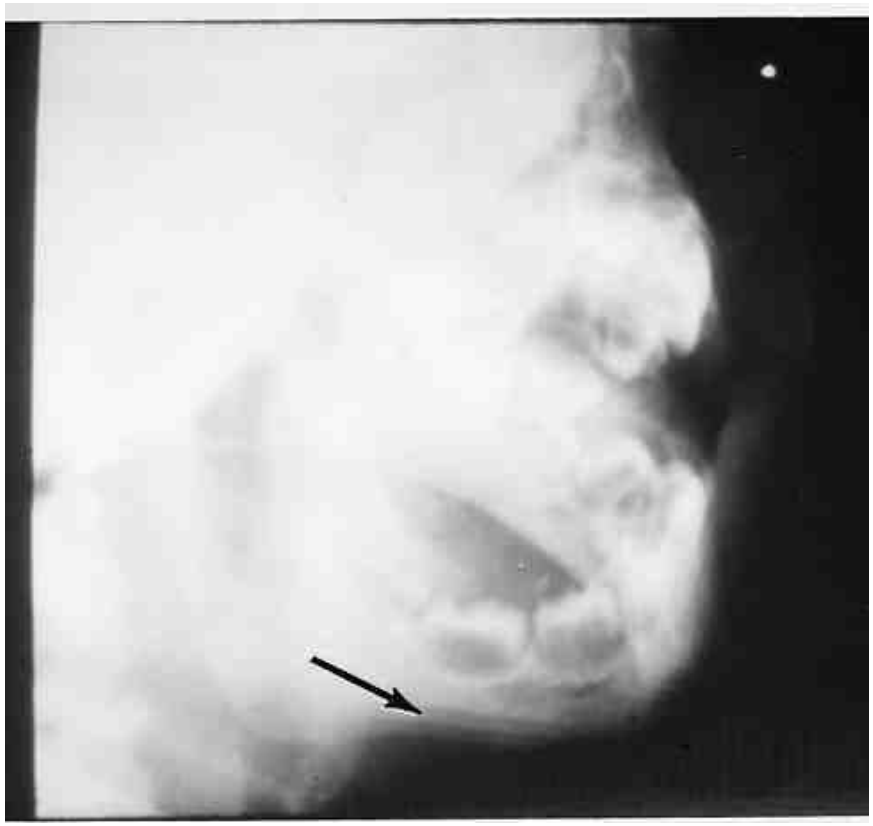


Fig. 18-36

Infantile cortical hyperostosis. Lateral jaw radiograph shows the subperiosteal deposition of bone at the lower border of the mandible (arrow), giving it an onionskin appearance.