(6) *Malignant disease, i.e. post-radium necrosis.*—Radium necrosis is becoming very much less common with the advances in therapy. There is little that one can do in these cases in the way of any extensive treatment. The necrosis is slow and there is a reluctance to interfere. The deciding factor is the prognosis of the case. If this is poor then the best line of treatment is purely palliative, on the other hand with a younger patient with a good prognosis one might be tempted to greater efforts.

I think it is a little premature to lay down hard and fast rules regarding the optimum doses of penicillin, perhaps further work will strengthen our position.

My thanks are due to Professor Kilner, Messrs. R. P. Osborne and J. P. Reidy, and Mr. J. W. Hallam for permission to include some of their cases. My grateful thanks are due to Professor McIntosh and his staff and also to the radiologists to Stoke Mandeville and the Middlesex Hospitals, and to Professor Windeyer for his case treated by radiotherapy; I must also thank the Director-General of Medical Services of the Ministry of Pensions for permission to publish this Paper.

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Regional Osteitis Fibrosa Affecting the Facial Bones: Two Cases

By MARTIN A. RUSHTON, M.D., L.D.S.

MANY conditions differing in various ways have been grouped under the names osteitis fibrosa, osteodystrophia fibrosa, &c., on the grounds of their histological appearances.

A type quite commonly found in the jaws and in which there is no evidence of hyperparathyroidism has been called local or focal osteitis fibrosa, ossifying fibroma, and other names. This variety usually affects one bone only and often only one part of it. Occasionally cases occur in which there is the same type of lesion confined to the facial or cranial bones but affecting several of them. The lesion is, however, not symmetrical as it is in the classical descriptions of leontiasis ossea. Such cases may conveniently be called the regional type of osteitis fibrosa since there is in them no evidence of disturbance beyond the head region.

In the two cases to be described the lesions, chiefly of the hyperostotic-porotic variety, were first noticed towards the end of the second decade, were asymmetrical, progressive, and not associated with any observed blood changes, except a raised alkaline plasma phosphatase.

I report the first case by the kindness of my colleague, Mr. F. A. Walker.

CASE I.—A soldier of 21 had noticed a lump on the right side of the lower jaw growing slowly for four or five years. There were no other symptoms. On examination it was found that the mandible was much enlarged in the region of the right angle and somewhat also around the symphysis. The right maxilla and malar bone were also much enlarged. Radiographs showed an area of bone rarefaction from the right lower first molar region to the condylar neck, with hyperostosis of a porotic kind (fig. 1).

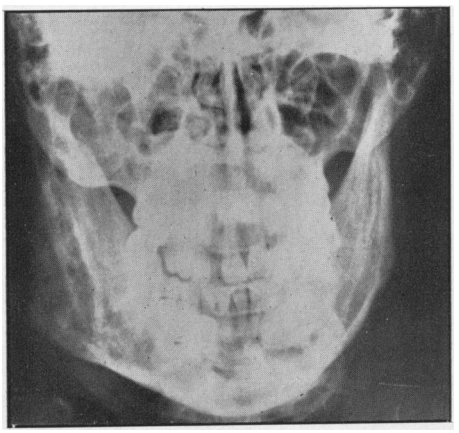


FIG. 1.

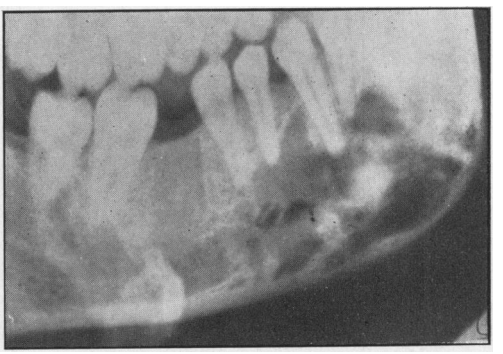
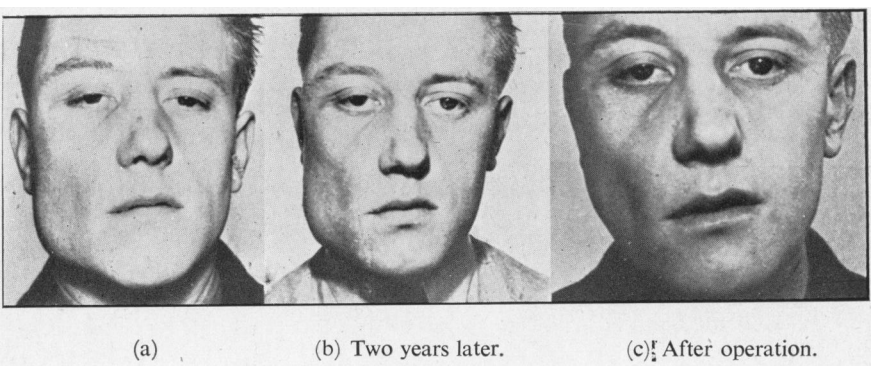


FIG. 2.



(a) (b) Two years later. (c) After operation.

FIG. 3.

CASE I. [Figs. 1, 2, 3.]

There was also an area of bone destruction extending from the right lower canine to the left lower second premolar with a few sclerotic patches (fig. 2).

The enlarged right maxilla and malar bone gave a picture of diffuse and fine-grained hyperostosis. There was some exophthalmos of the right eye and a little ptosis on the same side (fig. 3a). Investigations showed blood cholesterol at the lower limit of normal and no diabetes insipidus, rendering a diagnosis of Schüller-Christian's disease unsuitable. Serum calcium lay within the upper limits of normal range; the blood-count was normal; there were no Bence-Jones proteoses in the urine; the Wassermann and Kahn reactions were negative; and radiographs of pelvis and long bones showed no abnormality. A biopsy from the right maxilla and the right side of the mandible showed the picture of osteitis fibrosa in each case. Dr. Laurent thought at one time that the case might be an early state of hyperparathyroidism; but the condition did not develop in that sense. When seen again in two years the bony protuberances had increased in size, especially that at the right mandibular angle, and the proptosis had increased (fig. 3b). The latter was apparently due to the formation of a boss of bone under the right eye. The serum calcium was then 10.9 mg. per 100 ml. It was decided to reduce the mandibular prominence for cosmetic reasons and this was done by Commander J. M. Banks and Mr. F. A. Walker (fig. 3c). The bone was found to be of leathery consistency. Professor W. D. Newcombe reported on the material removed as follows: "All the material is substantially the same, viz. osteitis fibrosa. The histology has changed considerably in the last two years, and now it is much more active with much woven bone formation and many spindle cells with very delicate collagen. If this type of alteration progresses much further the condition will become sarcomatous."

CASE II.—A married woman of 25 complained of swellings of the jaws. Abnormal thickness of the lower jaw on the right side was first noticed six years ago by a dental surgeon, and radiographs had since been taken and a diagnosis of adamantinoma made. There had never been any pain, redness, or discharge, and general health was excellent. Wassermann and Kahn reactions were negative. She had recently noticed new swellings on the left side of both jaws.

On examination the thickness of the lower jaw was found to be abnormally great especially at its anterior part on the right (fig. 4a). The alveolar process of the left maxilla was also very much thickened. There were visible veins running vertically in the skin beneath the chin (fig. 4b). The occlusion of the anterior teeth was abnormal and according to the patient was not formerly so (fig. 4c). Mucous membrane was normal. Radiographs showed that almost the whole mandible was affected by osteitis fibrosa of a hyperostotic-porotic type but with occasional patches of sclerosis (fig. 5). The texture of the bone was a very fine stippling, with occasional areas of almost complete bone absorption and with a thin but unbroken cortex. The alveolar and palatine parts of the left maxilla were affected in the same manner, the abnormal bone ceasing sharply at the mid-line (fig. 6).

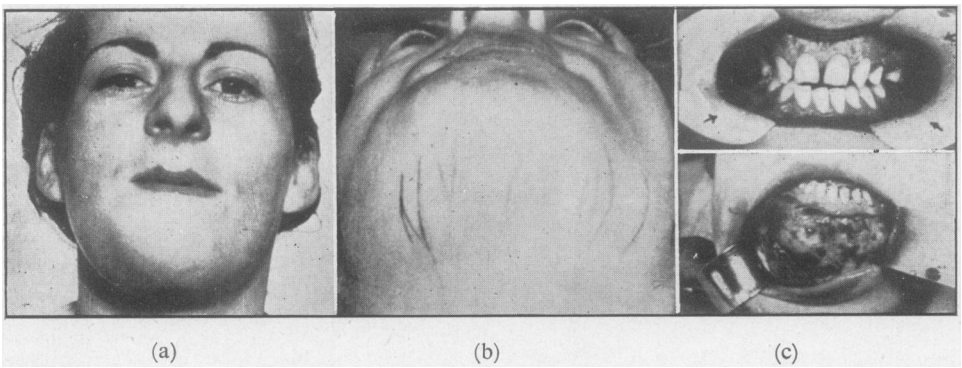


FIG. 4.

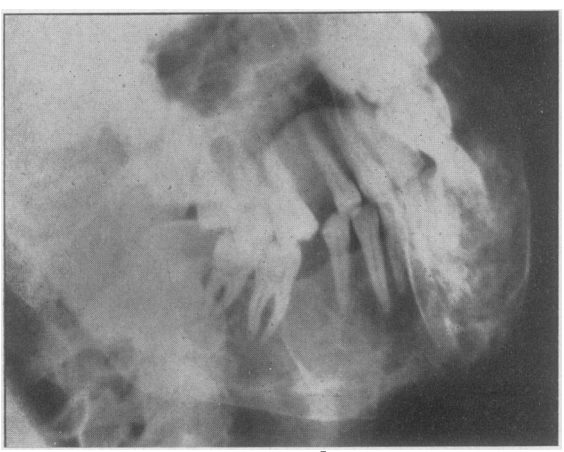


FIG. 5.

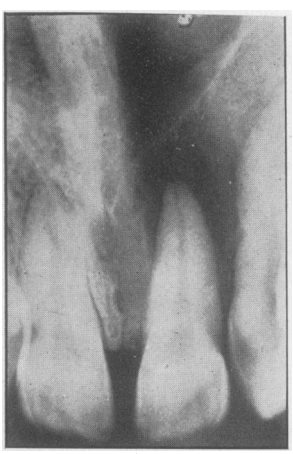


FIG. 6.

CASE II. [Figs. 4, 5, 6.]

The left malar bone seemed porotic compared with the right but was not clinically enlarged. There appeared also to be an area of porosis on the right side of the cranial vault, the size of two shillings, but again there was no clinical enlargement. Radiographs of the pelvis and right femur showed no abnormality; the serum calcium was 10·9 mg. per 100 ml.; and the plasma alkaline phosphatase was 45 phenol units.

On the advice of Dr. Levitt the patient was treated by radiotherapy preparatory to a cosmetic reduction of the bony prominences. The latter was performed five months later (Sir Harold Gillies and M. A. R.), a large section of the outer side of the lower jaw from molar region to molar region being removed and the prominence of the maxilla being sliced off. Sections of the tissue removed showed the same appearance in each jaw. All cortical bone was being actively absorbed, with large numbers of giant-cell osteoclasts, including the cortical bone around the mandibular canal, and the whole inner part of the bone had come to consist of a fine connective tissue containing innumerable small bone nodules of inactive appearance. A certain amount of new subperiosteal and other bone was being formed. The lower left canine tooth, which had to be extracted, showed no abnormalities of structure and, in particular, normal cementum.

We found ourselves quite unable to offer any prognosis for these cases or to devise any useful treatment other than a palliative cosmetic procedure.

I am indebted to Sir Harold Gillies for allowing me to describe these cases from the Plastic and Jaw Unit E.M.S., Basingstoke.