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Eosinophilic Granuloma of the Mandibular Condyle*

Case report

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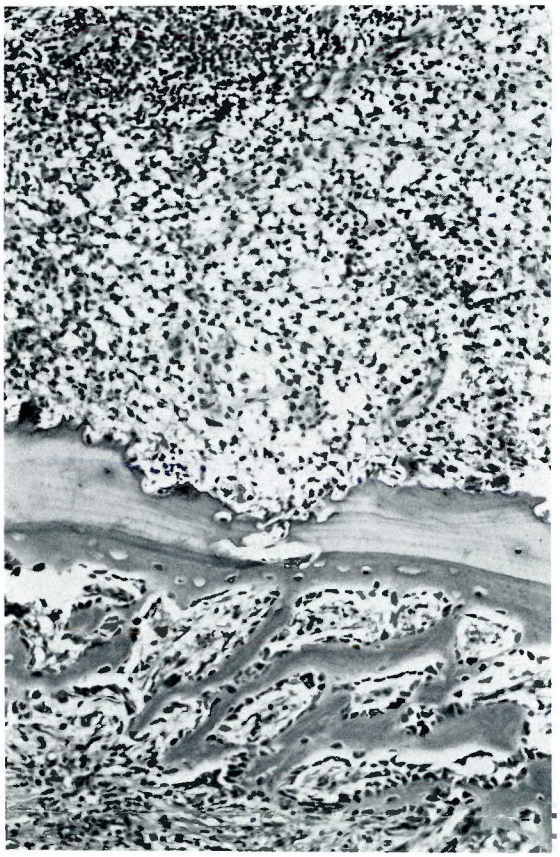


Fig. 3 Apposition of lace-like newly formed bone onto a sharply demarcated fragment of partially necrotic bone (HE x 100).

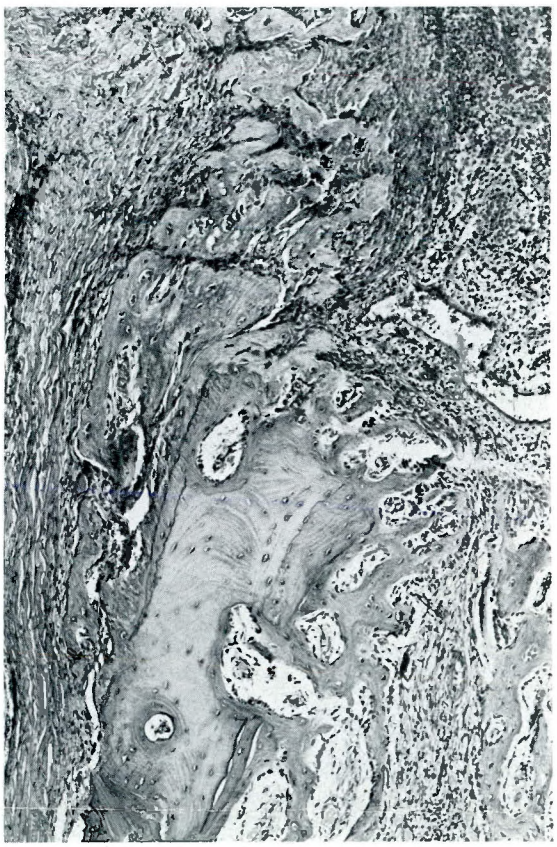


Fig. 4 Fracture site with callus formation. Marrow spaces show loose, non-specific inflammatory infiltrates, while at top, infiltrates characteristic of eosinophilic granuloma are evident (HE x 60).

histiocytic constellation that includes Letterer-Siwe, and Hand-Schüller-Christian diseases – a subject that has been extensively debated without a firm conclusion having been reached (*Otani* 1957, *McGavran* and *Spady* 1960, *Lichtenstein* 1964, *Schajowicz* and *Slullitel* 1973). It is clear, however, that in pathological terms eosinophilic granuloma is a distinct histological entity, though not invariably confined to bone.

On histological examination conspicuous sheets and clusters of mononuclear histiocytes, some with striking phagocytic activity, admixed with collections of eosinophilic leukocytes are present. Furthermore haemorrhage and necrosis are featured, with multinucleated phagocytic giant cells in adjacent fields. In areas where the eosinophilic leukocytes are undergoing fragmentation, proteinaceous crystalline structures, the so-called Charcot-Leyden crystals are found. In many instances of eosinophilic granuloma, ultrastructural studies revealed rod-like or tennis racket-shaped cytoplasmic inclusions in the histiocytic cells identical to those seen in the normal Langerhans cells of the epidermis (*Cutler* and *Krutchkoff* 1977).

Mandibular lesions are usually located around the apices of teeth. The characteristic complaint of loose teeth and the radiographic feature of "floating teeth" describe the finding whereby teeth are enveloped by radiolucent lesional tissue. By active



Fig. 5 Cortical bone in vicinity of the lesion, displaying marked periosteal as well as endosteal formation of woven bone (HE x 40).

growth, the lamina dura of neighbouring teeth is eroded in addition to surrounding bone.

Radiography of symptomatic areas is the only effective noninvasive diagnostic technique. A pathognomonic radiological feature may be noted in many cases, namely, a scalloped-edged area of bone destruction with a relatively well defined border adjacent to the lower border of the mandible. Occasionally radiographic findings may be atypical, especially when eosinophilic granuloma extends to involve the cortex and periosteum (*Ochsner* 1966, *Jaffe* 1972) and sometimes osteomyelitic processes or metastases may be simulated (*Thoma* 1954), similar to the case described above.

Occasionally the association of eosinophilic granuloma with infection presents a difficult diagnostic problem, both clinically and histologically (*Steinhardt* 1957, *Scheunemann* 1958, *Storrs* 1976).

Fracture through a lesion results in exaggerated fibrous tissue proliferation, which may obscure the typical histological features of an eosinophilic granuloma (*Jaffe* and *Lichtenstein* 1944). In these areas, periosteal connective tissue scarring and reactive new bone and callus formation are demonstrable. Periosteal new bone may give a "pseudomalignant" appearance, and the X-ray findings may be misinterpreted as indicative of either reticulum cell sarcoma, Ewing's sarcoma, plasma cell myeloma, or metastatic cancer.

When the surgical pathologist is faced with a frozen section from an eosinophilic granuloma accompanied by a pseudomalignant radiographic appearance the multinucleated giant cells and eosinophils, even though few in number, are very helpful since neither occur with significant frequency in either reticulum cell sarcoma, Ewing's sarcoma or multiple myeloma. In most cases definitive diagnosis results exclusively from microscopic examination of involved tissue.

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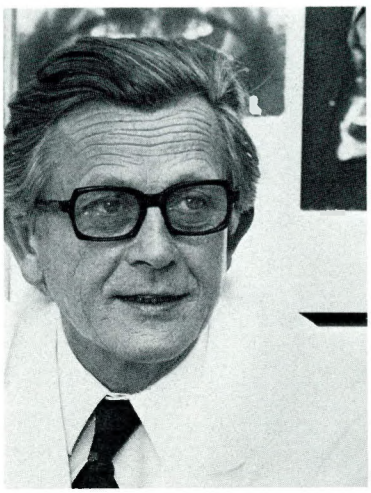
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Prof. Hugo L. Obwegeser on the Occasion of his 60th Birthday



On October 21st, 1980, Prof. *Hugo L. Obwegeser*, M.D., D.M.D., Head of the Clinic for Maxillo-Facial Surgery, Medical School, University of Zurich and Chief of the Department of Oral Diagnosis and Oral Surgery, Dental School, University of Zurich celebrated his 60th anniversary. We consider this an excellent opportunity to review the career of this prominent personality.

Born in Hohenems in Austria, he later graduated M.D. at the University of Innsbruck in 1945. In addition to training in various other specialities, he spent two years in Pathology, which subsequently greatly influenced his approach to the problems encountered in his field of endeavour. In 1949 he graduated D.M.D. in Graz, where he trained in maxillo-facial surgery under the guidance of *R. Trauner* before moving to London and Stuttgart to train under *Sir Harold Gillies* and *E. Schmid* respectively.

In 1954 he came to Zurich, and although he was initially a senior lecturer, he soon became an extraordinary professor; and since 1964 he has been the maxillo-facial surgery chair holder at the University of Zurich, where, from scratch, he developed and nurtured what has today become his widely known and respected clinic for maxillo-facial surgery.

It is indeed difficult and lengthy to trace in detail his extensive and varied professional career. However a fairly good idea can be obtained by recalling the fact that when he initially came to Zurich, a maxillo-facial surgical service did not exist while today, as has been the case for many years, a clinic of international recognition exists. His unusual professional success may be attributed mainly to three factors:

He is a gifted surgeon and innovator of many new techniques. Procedures in reconstructive surgery, in the corrections of maxillo-mandibular dysharmonies and complex congenital deformities, in preprosthetic surgery, traumatology and many others are exclusively or mainly linked to his name. He initiated the advocacy of the intraoral approach for the majority of maxillo-facial procedures, which has nowadays become widely accepted.

His second admirable and advantageous quality is his teaching capability. He is a brilliant lecturer and has as such brought new dimensions to many countries in the field of maxillo-facial surgery, especially to the USA. More importantly his trainees have been helped to improve greatly. His teaching sessions, his evaluation of a problem, his ability to draw a correct conclusion, as well as his well-founded, soundly based criticism attempting to stimulate the achievement of even better results, never fails to fascinate his audience. Consequently, visitors from all over the world have been attracted to the clinic, as have a long list of co-workers from all continents. Those surgeons who trained under his guidance and subsequently left to work independently no doubt still rely heavily on his teaching and inspiration, and all certainly benefitted by the experience of having worked with him.