AN UNDESCRIBED FORM OF ARTERITIS
OF THE TEMPORAL VESSELS*

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cine: Arteritis of the temporal arteries is of unusual occurrence and the
two cases, which are to be reported elsewhere, so far as we are aware,
represent the only cases which have been reported at the Clinic. More-
over, we have not seen similar cases to these reported in the literature.

The clinical pictures which these two cases present are similar in many
ways, and seem to represent a definite clinical syndrome. Both patients
were admitted to the Clinic in the spring of 1931 because of fever, weak-
ness, anorexia, loss of weight, anemia, mild leukocytosis, and painful, tender
areas over the scalp and along the temporal vessels. These manifestations
had been present for from four to six weeks. Study of the microscopic sec-
tions of the blood vessels removed for biopsy disclosed identical lesions.

The general impression obtained from study of the sections is that of
extremely chronic periarteritis and arteritis. Peculiar circumscribed
areas of what appeared to be granulation tissue were present in the adven-
titia of the blood vessels which suggested granulomas, and this represented
the most characteristic lesion present. The gram stain revealed minute,
filamentous gram-positive material in these areas which could easily be
interpreted as being mycelia. In addition, infiltration of round cells was
present in the adventitia around the vasa vasorum, and to a slight extent
in the media of the vessels. Hemorrhage was present in the media in some
areas. The intima, in many areas was markedly thickened; the basal portion
appeared acellular, with superimposed cellular layers, which indicated that
the intimal proliferation had taken place in different stages. In other areas
the thickened intima was of uniform cellular character. In some sections a
small lumen was still present, whereas in others the lumen had been com-
pletely occluded by either cellular or acellular thrombi.

Careful study of the affected arteries indicates that the lesion probably
begins as periarteritis of a small segment of the artery. When the artery
is palpated at this stage, segments 1 to 2 cm. in length are tender, but
pulsations are still present. No tenderness is present just proximal or just
distal to the involved segment. What apparently happens is that the process
subsides when it reaches this stage, leaving the wall of the vessel thickened
but patent, or the process may continue, spreading into the surrounding
tissue as well as in the media and intima, with thrombosis of the involved
segment. The history, clinical course, and pathologic appearance of the
vessels does not suggest periarteritis nodosum nor thrombo-angiitis obliter-
ans. We are inclined to believe this represents an entirely new lesion.

Actinomyces were found in pure culture from both resected arteries,

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but after careful study these organisms were found to be exactly like common Actinomyces found in the soil, and at present we do not regard these organisms as of etiologic significance.

The entire subject of arteritis must be revised. Too little is known from the clinical standpoint, and the pathologic criteria are not as yet well established. The types of arteritis which stand out as clinical entities are as follows: 1. Thrombo-angitis obliterans represents the best known of these disease entities. The description of this group by Buerger, and the confirmation of this work by many workers, has taken out of the literature many diverse, heterogeneous types, and has put them in one category. 2. Periarteritis nodosa, or Kussmaul's disease, was described by Kussmaul and Maier in 1866, and is probably a pathologic and clinical entity. In this disease there is periarteritis, with acute, subacute, and chronic stages; there are nodular formations in the adventitia, composed of polymorphonuclear leukocytes and eosinophiles. There is a predilection for involvement of the smaller arteries of the viscera, rather than the peripheral bed. The symptoms are largely those due to ischemic neuritis.

Recently, Libman and Sacks have described certain changes in the smaller arteries in a form of verrucous, or indeterminate endocarditis. However, the arteritis may occur independently of endocardial involvement. The pathologic lesion in the capillaries and arterioles indicates active proliferation and necrosis. There is occlusion by proliferative and disintegrating cells. At times, intimal granulomas are observed. Acute arteritis has been described by Pappenheimer and von Glahn in rheumatic fever. This is probably a secondary form. Arterial changes, including various reactions of the arteries, have been described in many diseases, including typhoid fever, typhus fever, rheumatic fever, cholera, bacterial endocarditis, mycotic diseases, and others. There is also an ulcerative form observed in arteries contiguous to acute abscesses.

The two cases which form the basis of this report probably represent a new clinical syndrome, the etiology of which is still obscure. It is apparently a focal localization of some unknown systemic disease. Fever, mild sepsis, anemia, exhaustion, and localized periarteritis and thrombosing arteritis were present in each case. Relapses or complete remissions occurred in both. At the present time no name can be given to this condition, but other cases will probably be found and the condition dignified by nomenclature.