The absence of retinal arteritis in our group is unusual, for this has been recorded in about half the cases so far reported.

The C.S.F. examination twice showed no definite increase in protein such as was found thrice by Cooke and his co-workers (1945). Similar negative findings have been recorded in the past (Horton and Magath, 1937; Hoyt, Perera, and Kauvar, 1941).

The three cases examined all showed microscopical evidence of inflammation, and although one had thrombosed vasa vasorum there was no suggestion that the condition could just be due, as was suggested by Horton and Magath, to spontaneous thrombosis of these tiny vessels in senile arteries. Quite apart from the clinical evidence of infection and from the histological evidence of the arterial inflammatory reactions the patients were not senile, and in two of them there was neither marked hyperplasia nor marked arteriosclerosis. Possibly the arteries of old age are less resistant to a virus, and this might account for the age incidence of the infection, but the condition is not a simple outcome of marked arterial degeneration.

Treatment.—The infective agent being unknown, no specific treatment can be given. Nor does it appear to be related to other local or general infections that can be eradicated. A superficial resemblance to rheumatism and to syphilitic arteritis has led to the use of salicylates and iodides, but it cannot be said that either of these has a proved value. Penicillin has not yet been used.* The main treatment is palliative; an aspirin-and-phenacetin combination will in all but the most severe cases give hours of relief. The addition of heroin or codeine will be required in the more severe cases to give sleep at night. Removal of a part of an inflamed temporal artery has been found to diminish the headache in some cases, but as this was done in the stage of subsidence in two of our cases it is difficult from them to assess its therapeutic value. Certainly the pain immediately lessened in both, but in one of them it returned in a modified form after a short interval. A similar effect from resection of a piece of inflamed artery is recorded by Shannon and Solomon (1945), while Dantes (1946) found his case quite unaffected by the procedure. Where intracranial arteries are also involved, as in Case 3, little relief can be expected from such a measure. Nicotinic acid, tried in the Birmingham cases with possible benefit, was not used in our last two cases, as these patients were not willing to be long without their aspirin-and-phenacetin mixture.

Conclusions and Summary

Temporal arteritis is usually, at least, part of a fairly generalized arteritis in old people.

This condition is probably more frequent than is suggested by the 44 or so cases hitherto presented in the literature.

This form of arteritis only rarely occurs without declaring its nature by temporal-artery inflammation, but in all suspected cases other palpable pulses should be observed for changes.

The main cause for suspecting the illness is a protracted severe headache associated with some general malaise in old people, and particularly in women.

In such subjects the tendency to diagnose a functional cause of the pain should be firmly resisted, and a careful watch should be kept on the temporal arteries.

Adequate doses of the coal-tar analgesics give considerable relief. The condition, though lasting many months in most cases, tends towards recovery in the majority. By this fact and by the nature of the vascular reaction to the infection some distinction can be made between it and polyarteritis nodosa and thrombo-angiitis obliterans.

*Since this was written a failure with penicillin treatment has been recorded by K. Robertson, *British Medical Journal*, 1947, 2, 168.

The cause of the infection remains unknown.

Four recent cases of temporal arteritis are recorded and the condition compared with other forms of arteritis.

I am greatly indebted to Dr. H. C. Moore, who has made the detailed histological reports on the arterial sections, and also to Dr. J. L. Hamilton Paterson for the interest he has taken in this subject and for the help he has given me in its investigation. The photographs reproduced here and on the special plate were taken by Miss M. H. Shaw.

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THREE CASES OF SYNOVIOMA

BY

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[WITH PHOTOGRAPHIC PLATE]

Considerable interest has recently been shown in atypical mesoblastic tumours arising in connexion with joints, bursae, and fascial planes, occurring most often in the lower limbs. The following are three such cases which at present are mainly interesting from the pathological point of view but are here reported from the clinical standpoint.

Case 1

The patient, a married woman aged 61, was first seen in November, 1946. She gave a history of "rheumatism" in many joints for some years and a pain for the past eight months in the left ankle. There was a swelling about the size of a plum on each side of the tendo Achillis posterior to the ankle-joint. This swelling was firm and tense, and was at first

FIG. A.—Case 1. Leg before amputation.

FIG. B.—Case 1. Tumour of ankle after amputation.

thought to contain fluid. Aspiration was attempted, and a very small quantity of blood-stained fluid was recovered. The patient was admitted to hospital in January, 1947, and the swelling was exposed through an incision on the lateral side of the tendo Achillis. It was a firm mass, dumb-bell in shape, about the size of a tangerine orange, in the situation of the bursa. It was apparently encapsulated, and was enucleated with some difficulty.

A preliminary pathological report suggested that it was epiblastic in origin, but after further examination it was considered to be a mesoblastoma, probably synovioma. Radiography of the chest was negative for any secondaries, and that of the ankle negative for bone involvement; there were no palpable enlarged glands. On account of this pathological report operation was decided upon, and in March, 1947, amputation was performed at the junction of the middle and lower thirds of the thigh. The pathological report of the amputated specimen stated: "The specimen is a mesoblastic tumour—i.e., a synovioma—not resembling the original specimen, which is more fibroblastic than endothelial, with little haemosiderosis. It is involving the ankle-joint and tip of the astragalus." (Figs. A and B.)

Case 2

The patient, a married man aged 33, was first seen in March, 1947. He gave a history of a fall on the left leg eight weeks before which was not at the time followed by any symptoms. He stated that one week previously he had noticed a swelling in the left calf, and he walked with a slight limp. There was found to be a tense somewhat fusiform swelling in the left calf muscles. X-ray examination of the leg was negative for any lesion of the bone. The swelling was at first thought to be inflammatory in origin, but a biopsy was performed at the end of April. The pathological report on this was: "Myxosarcoma. If the leg is amputated please send for dissection to see where it is arising." He had a trace of sugar in the urine, but this cleared up. A glucose-tolerance test showed that the glycosuria was renal in origin. A radiograph of the chest was negative, and there were no palpable glands.

At the beginning of May amputation was performed at the junction of the middle and lower thirds of the thigh. The report of the amputated specimen was: "A mesoblastic tumour with cells of different type. Some are endothelial in appearance while others are fibrosarcomatous. This appearance conforms to the characteristics of a synovioma." (Plate, Fig. 1.)

Case 3

The patient, a married man aged 37, was first seen in April, 1947. He gave a history of several months' swelling in the adductor muscles of the right thigh; he also complained of some pain in the back. The swelling, which was hard and tense, was situated high up on the anterior internal aspect of the right thigh. Abduction of the leg was limited and the mass was fixed in the adductor group. A radiograph of the thigh was negative for bone involvement, and radiographs of the spine and lungs were also negative. There were no palpable glands. Biopsy was performed in May, and the pathological report on this was: "The specimen is most unusual, and is undoubtedly malignant. It is an undifferentiated reticulosarcoma, and may have arisen from a fascial plane. Further report will follow." After consultation with Mr. Thurgar, the consultant radiotherapist, it was decided that in view of the nature of the tumour and of its situation it would be best treated by a combination of surgery and radiotherapy, and in order to achieve continuity in this the patient was transferred to the Royal Victoria Infirmary, Newcastle-upon-Tyne.

At first it was thought that it would be necessary to do a hind-quarter operation, but it was finally decided that it would be possible to get above the mass by disarticulation at the hip-joint, and this was performed by Mr. McIvor. The pathological report on the amputated specimen was: "The specimen is mesoblastic tumour largely composed of undifferentiated mesenchyme cells with no tendency to haemosiderin pigmentation. It is very haemorrhagic, anaplastic, and has a few areas resembling endothelial cells. It is developing in the adductor group of muscles and is best classified as a synovioma." (Plate, Fig. 2.)

Clinically, from the point of view both of treatment and of prognosis, the above notes are necessarily at the moment incomplete. So far there have been no signs of recurrence. It is particularly interesting that three such cases should have occurred in a relatively small community in so short a time.

It is of course too early to assess the ultimate prognosis of these cases, but it may be stated that, up to date, Cases 1 and 2 are fit and well, both having put on weight with no sign of recurrence, local or otherwise. Case 3 died in November, 1947, the cause of death being multiple generalized recurrences in the lungs and abdominal glands. Unfortunately it was impossible to get permission to do a necropsy, so that the exact nature of these cannot be described.

In addition to Mr. Thurgar and Mr. McIvor, mentioned in the text, my thanks are due to Dr. Faulds, Carlisle, for his most helpful interest and discussions on the pathology of the above cases.

The photographs were taken by the author.

BALANTIDIAL DYSENTERY REPORT OF A FATAL CASE IN ASSAM

BY

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AND

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[WITH PHOTOGRAPHIC PLATE]

This form of dysentery is distinctly rare, and has been studied much less than the commoner dysenteries. Cases have been reported from temperate and tropical climates: they have been found in Asia, Africa, Europe, and America. The balantidium commonly found in pigs is regarded as the ciliate responsible for human infections.

Wenyon (1926) cited Malmsten as having in 1857 discovered this parasite in two patients suffering from dysentery, and Walker as having stated in 1913 that only 137 cases had been recorded in the 56 years following Malmsten's discovery, and of these 57 had been reported from the Philippines. Strong (1942) states that Weston, working among prisoners in Manila, found ciliated parasites three times in 4,000 routine examinations of dysentery stools, that Anderson in the Andaman Islands discovered them five times in 920 dysentery stools, and that Young reported seven cases among 142 mental hospital cases in South Carolina.

Mortality figures vary considerably. Strong (1942) gives 29% in 111 Philippine cases, and Walker, cited by Wenyon (1926), gives 7% in 57 Philippine cases and points out that of 40 necropsies recorded in the literature ulceration of the large intestine was present in 36.

Very few cases have been recorded in India. Das Gupta (1944) cited Sinton as having recorded the first case in 1923, and Hermitte, Sen Gupta, and Biswas as having reported balantidial infection as common in the tea gardens in Cachar, Assam, in 1926. Acton and Knowles (1928) state that during many years of work in India they had not encountered the human infection except in one isolated case. They also mention a fatal case which occurred in the Medical College Hospital, Calcutta, in 1926 (Major Shanks, I.M.S.). Das Gupta (1944) states that "about half a dozen cases of balantidiosis, including a fatal infection, have been observed in Calcutta." Claireaux (1945, unpublished observations), working among West African soldiers in India, found balantidia three times in 2,403 routine examinations of stools.

We present this report mainly because of the unusual occurrence of fatal balantidial dysentery in this part of India, and also to point out the difficulties which may be

FIG. 1.—The early changes of temporal arteritis. (Case 3.)

FIG. 2.—Fibroblastic and giant-cell reaction in media. (Case 4.)

FIG. 1.—Pancreas. Central area between arrows shows confluent anaemic infarction.

ASEPTIC NECROSIS OF PANCREAS :
WALTER PAGEL AND A. L. WOOLF (1)

FIG. 2.—Necrotic area (N). Thrombosed artery (A). Zone of haemorrhagic and leucocytic demarcation (H) ($\times 50$).

BALANTIDIAL DYSENTERY :
A. A. MILLER AND C. R. PECK (1)

Balantidia in submucosal space ($\times 150$).

INTRAUTERINE RUPTURE OF CORD :
G. BANCROFT-LIVINGSTON (1)

Gross deficiency of anterior abdominal wall with exteriorization of abdominal contents and a short umbilical cord. (Case 2.)

SYNOVIOMA :
V. C. J. HARRIS (1)

FIG. 1.—Tumour of calf muscles after amputation. (Case 2.)

FIG. 2.—Tumour of thigh after amputation. (Case 3.)