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ABSTRACTS

in phagocytosis of a single particle (aggregate); c) When a vacuole remained connected to the exterior by a narrow channel; d) When extrusion of granules preceded the complete closing of pseudopods around the aggregates. In contrast, if soluble aggregates of immunoglobulins (ie, not particulate) were incubated with neutrophils in suspension, release

of enzymes did not occur. However, when such soluble aggregates were previously adsorbed to a large surface (eg, a micropore filter), they became highly active causing the release of enzymes from adherent neutrophils. This release occurred by a direct extrusion of granules from the cell.

Methotrexate in Rheumatoid Arthritis

REX T. HOFFMEISTER, Spokane, Washington

This study was undertaken to determine whether methotrexate might be effective in rheumatoid arthritis in doses low enough to be free of unacceptable side effects. Twenty-nine patients with classic or definite adult rheumatoid arthritis have been treated with a single 10 to 15 mg dose once every 7 days. All had active, severe disease in spite of conventional therapy. Most were on 5 mg Prednisone daily, or less. All but 6 had received gold and exhibited either toxicity or failure with chrysotherapy. Twenty-three were seropositive for RA factor. The average age was 56.5 years, with a range of 28 to 80. Average duration of RA was 11.5 years. Average duration of methotrexate therapy was 25.5 months.

Twelve patients are still on therapy; 7 for 36 to 48 months, 2 for 24 to 36 months, 1 for 12 to 24 months, and 2 for less than 12 months. In the remaining 17 patients therapy was discontinued because of remission in 3, no improvement in 2, hepatic toxicity in 4, intolerance in 5, change of residence in 3.

Multiple parameters were evaluated weekly the

first 4 weeks and monthly thereafter. Most factors were graded on basis of 0 to III. A change of three grades was considered major, two grades moderate and by one grade a minor change. Approximately half of the patients showed moderate or marked improvement in morning stiffness, fatigue, pain, swelling and decrease in sedimentation rate. Most showed definite improvement in joint count and grip strength. Improvement of functional capacity was moderate in 7, mild in 15 and absent in 7. Clinical improvement was estimated as major in 11, moderate in 14, and minor or none in 4. Decrease in dosage below 10 mg every 7 days, or discontinuing therapy, produced definite deterioration in 22 patients. Only 1 patient has shown significant elevation in SGOT. Eighteen liver biopsies in 14 patients have shown mild portal fibrosis in 3 patients, all of whom had been on therapy for 3 years or more and had normal SGOT.

Further evaluation of methotrexate in RA appears warranted.

Superficial Temporal Arteriography

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The early recognition of temporal arteritis (TA) is frequently difficult because clinical findings are commonly nonspecific and vascular involvement may be segmental and missed on random biopsy. Because arteriograms permit examination of the entire temporal arteries, it has been suggested that temporal arteriography may be helpful in the diagnosis of TA.

In this study superficial temporal arteriography was performed under local anesthesia using magnification technics on 31 patients suspected of having TA. The prearteriographic diagnosis in most was

polymyalgia rheumatica. Biopsies from one or both temporal arteries were obtained from each patient at the time of arteriography. Mean biopsy specimen length was 5.5 cm; serial sections were examined histologically. Nineteen females and 12 males, aged 55 to 80 (mean 68) were studied.

In 24 patients arteriograms showed smooth arterial channels. Collateral arteries and veins filled promptly. Histologic examination of biopsies showed no abnormalities or only minimal intimal fibrosis. In 5 other patients the arteriograms showed areas of irregular constriction and dilation of the arterial