

We suggest that left atrial myxoma, aortic atheromatosis, and other embolic diseases should always be considered as possible causes of cutaneous or systemic necrotizing vasculitis.

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#### First results in the treatment of Dupuytren's disease

*To the Editor:*

From a pathologist's viewpoint, Dupuytren's disease can be considered a progressive fibrosis of involved tissue. On this basis, both oral and intramuscular administration of lathyrogene drugs such as Thiola have been used with poor results. For this reason, we experimented with lathyrogene therapy by using alpha-mercaptopropionilglycine by electroionophoresis.

In our experience, the most useful treatment consists of 20 applications once daily of 5 ml on the negative pole and 5 ml on the palmar aspect of the hand, each lasting 15 seconds, with 2-6 watt intensity according to the individual sensitivity. This treatment is repeated every 3 months.

The evaluation of this treatment at the end of each 3-month cycle was based on the subjective criteria of stiffness and function, and the objective criteria of firmness of the aponeurosis and the nodules before and after every 3-month cycle. In addition, measurements of the passive extension between the first fold of the wrist and the involved finger tip were considered.

All 21 subjects treated in 1 year reported subjective improvement. In all patients a decreased hardness in the palmar aponeurosis and in the nodule was found. The measurements revealed 1 to 1½ cm increase in extension. In only 3 cases with severe functional limitation of the fourth finger were the results very poor.

Our purpose is to reduce the need for surgery in this disease by early and regular treatment. Further research, including a longer period of experimentation, a larger number of patients, aponeurosis biopsy, variation of blood vessels in the tissue, and a double-blind study, will provide some important parameters for correct evaluation of this research. We hope our colleagues will consider the safeness of this drug and reproduce this treatment.

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#### Zinc sulfate in the treatment of rheumatoid arthritis

*To the Editor:*

In 1976 Simkin (1) observed clinical improvement in patients suffering from rheumatoid arthritis (RA) who were treated with zinc sulfate. The mechanism of efficacy of this treatment was unknown, but some studies have revealed a low serum level of zinc in RA (2).

In order to clarify this problem, we performed 3 studies. In the first, 600 mg/day of zinc sulfate were administered in a clinical trial to 15 patients suffering from severe RA. Seven of these patients exhibited an impor-

**Table 1.** Variations of the clinical and biologic measurements at the fourth month of the trial

	Zinc sulfate group	P*	Placebo group
Clinical measurements†			
Morning stiffness, minutes	+23.7	NS	-18
Night awakening, no. times	+0.03	NS	+0.36
Graphic pain, minutes	+15.7	NS	+9.06
Joint size (PIP), cm	+2	NS	+5.06
Grip strength	-63.7	NS	-26.6
Articular index (Ritchie)	-0.25	NS	-2.8
Functional index	-0.9	NS	+1.1
Patient's evaluation	-0.7	NS	-0.9
Investigator's evaluation	+0.18	NS	-0.2
Prednisone dosage, mg	+0.34	NS	+0.31
Laboratory findings			
ESR	+4.2	NS*	+7.4
Fibrinogen	-0.11	NS	+0.09
Alkaline phosphatase	+4.8	<0.05	+0.2
5' nucleotidase	+11.0	<0.05	-2.8
ANF	No change	No change	No change
LE cell	No change	No change	No change
Latex	-1.6	NS	-1
Waller-Rose	-0.06	NS	-0.13
Zinc serum level	+46.26	<0.05	+2.53

\* NS = not significant.

† PIP = proximal interphalangeal.

tant decrease in their degree of inflammation and a statistically significant decrease of their erythrocyte sedimentation rate (ESR).

Second, zinc sulfate was administered to Lewis inbred male rats suffering from adjuvant arthritis. No effect was noted upon either the primary or secondary manifestations of the adjuvant arthritis, nor were any side effects observed.

Third, 35 patients suffering from classic or definite RA received either zinc sulfate (600 mg in 3 daily dosages each of 200 mg) or placebo in a double-blind trial of 4 months duration. No statistical difference could be detected at the beginning of the trial between the 2 groups' clinical and biologic characteristics. The mean duration of RA was roughly 10 years. Zinc serum level was in the normal value range.

Results are reported in Table 1. No significant difference was observed in the clinical criteria. ESR and fibrinogen did not decrease. Side effects (nausea, gastric pain, vomiting, and headache) occurred with equal frequency in both groups. Zinc administration did not result in any renal, hepatic, or thyroid disorder, though 11 patients received zinc sulfate for a total of 8 months. A few patients did show improvement, but this was without statistical significance.

In conclusion, our results differed markedly from those obtained in previously published open and controlled trials of oral zinc sulfate. We cannot offer any explanation for this discrepancy, since the characteristics of the patients seem to be similar in the three studies. We did not find a low level of zinc in the serum of our RA patients as previously reported. Finally, we believe that this double-blind trial clearly demonstrates that zinc sulfate has no therapeutic value in RA.

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## A medical option for the treatment of osteoid osteoma

## To the Editor:

Osteoid osteoma is an uncommon, benign bone tumor consisting of vascular, osteogenic, and connective tissue. When typical, it causes pain, mainly at night, and is poorly relieved by narcotics but completely or greatly ameliorated by aspirin (1). The disease is more common in males than females; half the cases are found in individuals under 21 years of age and half the lesions appear in the femur and the tibia (2).

**Case Report.** My 19-year-old son developed pain in his left shin which was noted every night soon after he went to bed. An osteoid osteoma was suspected, and he was instructed to take 2 aspirins and report when he noted a change. He was surprised by the advice, but even more surprised at the effectiveness of aspirin. The pain was eradicated in about 25 minutes and did not recur until the following night. A radiograph confirmed the diagnosis by revealing a central, circular lucency 1 cm in diameter in the cortex of the lower tibial shaft, with peripheral sclerosis of bone (Figure 1A).

Over the next year, aspirin was prescribed in dosages of up to 12 tablets daily, but some pain persisted. The patient maintained this dosage for a year. During this time pain increased in severity and was