

acute and quite severe attack of rheumatism for ten days, when he entered the hospital. During that time most of the large joints had been in turn affected. When first seen by me his temperature 103° ; his pulse quick, bounding, full, but compressible; his skin moist, with moderate perspiration; his countenance indicated pain and distress. At the time the pain was almost wholly limited to the left knee and right shoulder and elbow. All these joints were considerably swollen, and the skin over the knee was very slightly reddened. There were no evidences of endo- or pericarditis. Appetite was completely wanting but thirst was much increased. The bowels were constipated. The urine was somewhat scant and highly colored. Sleep of more than momentary duration had been impossible for many days. In a word, the patient at the moment presented the symptoms characteristic of a typical case of acute rheumatism. As it was one of the earliest cases of acute rheumatism that I treated wholly with antipyrin, I ordered at first the administration of a powder containing twenty grains of the drug only night and morning. The following afternoon he reported that soon after taking the medicine he slept, and for three or four hours was free from pain, but as the influence of the drug wore off the pain returned. His temperature had then lowered, but was still considerably above normal. I now ordered the antipyrin powders given three times daily instead of twice. Two days later the patient looked much better, and described himself as almost free from pain; the cutaneous redness over the knee was gone, and all the joints were less swollen, but still stiff and somewhat painful on attempted motion. The temperature for the most part during the preceding twenty-four hours was normal; twice it rose slightly. The frequency of the administration of the antipyrin was left to the judgment of the house physician; the directions being to administer the drug whenever the temperature rose or an access of pain occurred. Following this plan, he received during the next two days two powders daily. He was entirely comfortable so long as quick and violent movements were not attempted. For eighteen hours there had been no abnormal temperature. The swelling of the joints was much less, and freedom of motion much greater. The case progressed steadily in a favorable manner, and all stiffness and pain disappeared during the next week. The antipyrin was continued for several days after all fever was gone. No other medicine was administered after its discontinuance, the patient simply being guarded against adverse atmospheric influences.

In the other acute cases in which I have tried antipyrin, I have been most pleased with the readiness with which it relieved pain and lessened fever. In some instances the improvement was more marked and more rapid than in the case I have just sketched; in others it was somewhat slower, but always decided. I feel confident that, so far as

a limited number of cases will permit one to determine, antipyrin can be said to be as efficacious as the salicylates. Being at first impressed with the thought that the relief obtained in rheumatism was due to the antipyretic effects of the drug, I substituted for it salicylic acid as soon as the temperature became normal; as, however, experience showed that the efficacy of antipyrin did not depend upon this property, I continued its use, as improvement took place, in lessened doses and less frequently, until a cure was established.

In the hospital cases most recently treated the drug has been used in fifteen grain doses, administered at the height of the disease every four hours, diminishing the frequency of its repetition as improvement occurred. It has seemed to me that I obtained more satisfactory results in my private patients to whom I gave it in larger, twenty grain, doses, four times daily, when the disease was at its height, and to whom, during the period of improvement, it was given in smaller doses, but not at first less frequently. From sixty to ninety grains (four to six grams) daily are recommended usually by those who have employed antipyrin in rheumatism.

The advantage of antipyrin over the salicylates consists chiefly in its less nauseating properties, its less liability to provoke vomiting, headache, and noises in the ears. Not unfrequently a patient is found who can not take the salicylates in efficient doses. While trying antipyrin, both in rheumatism and in other febrile diseases, I have found only one or two persons who rejected it; and a few others whose stomachs were irritable, who complained, of slight nausea immediately after taking it. These effects are, however, much less frequently produced by it than by the salicylates. It can also be given efficiently, when necessary, by the rectum or subcutaneously.

The only ill effect that is likely to result from the use of antipyrin is the so called "antipyrin rash." This is seen only in a very small proportion of the cases treated with it. Two or three cases of fatal collapse have been reported occurring in typhoid patients, after taking antipyrin. At the most, however, this is an exceedingly rare accident, and it is questionable even if, in the cases referred to, the accident was due to the antipyrin. Ringing in the ears has been reported as occurring, but so seldom that it need not be looked for when the usual doses are used.

Others have found, very rarely, a case of acute rheumatism in which no relief could be obtained from the antipyrin treatment. The same can be said, however, of the usual salicylate treatment.

The use of the drug does not appear to influence the frequency of the occurrence of heart complications, and their existence is not a contra indication to its employment.

It is impossible, from what we yet know of the nature of rheumatism and of the physiological action of antipyrin to explain thoroughly its therapeutic action. The perspiration which very uniformly