NOTES ON ANTIPYRIN.

It is not my intention to make any remarks on the uses of antipyrin as a febrifuge. Antipyrin has been long used for this purpose, long enough indeed for a host of rivals to have arisen, one of which—I mean antipyrin (acetanilide)—bids fair to displace it. I wish rather to bring before the meeting some account of the various diseases for which antipyrin has been used, in which it has a more or less specific action, apart from its property of lowering temperature. Antipyrin has been so largely used, during the last year, more especially upon the Continent, that it runs the danger of degenerating into a universal panacea for all ills. So great in fact has been the demand for the drug, that it is believed that the supply has with difficulty kept pace with it, and complaints are now made that the drug is suffering from over-popularity, and that its purity is being sacrificed by the makers to insure a sufficient quantity in the market.

Antipyrin has been very largely used as an anodyne, and a claim has been made for it by Professors Germain Sée and Lépine that it is a reliable substitute for morphine, while in cases where morphine is contraindicated, such as advanced kidney disease, acute gout, or certain forms of cerebral irritation, antipyrin may be given freely to allay pain. It has the great advantage over morphine that it does not cause cerebral symptoms; thus there is not any vertigo nor vomiting, and according to Professor Sée the use of the drug is not followed by sleep or nerve stimulation. Professor Lépine, however, considers that antipyrin acts both as an anodyne and a nerve stimulant, so that though it relieves pain, it at the same time quickens the intellectual faculties of the patient, and renders him disinclined for sleep.

Taking his view of the action of antipyrin as an anodyne, we may say that it is diametrically opposed to morphine in that it acts as an anodyne without depressing the higher brain centres. In only two cases in which I have given antipyrin has it caused sleep, and in these instances I believe the sleep was rather the result of relief from pain than that of any somnolent action of the drug. The fact that antipyrin acts as a nerve stimulant as well as an anodyne is a decided objection to its employment when we wish to relieve pain and at the same time insure sleep. The best method in such is to follow the antipyrin by a hypnotic, such as chloral.

For the immediate relief of pain the drug should be used hypodermically, and, as it is very soluble in water, a fresh solution may be made by dissolving one of the tablets prepared by Burroughs & Wellcome in an equal weight of water.

The dose for an adult, of antipyrin used hypodermically to relieve pain is five grains. This has been calculated by Dr. Fränkel, of Berlin, to be equivalent to one-thirtieth of a grain of morphine. The dose may be repeated if the pain is not relieved. Beyond the pain caused by the injection, and a certain feeling of tension which lasts a few seconds, no bad effects have been noticed. The drug usually gives relief in from fifteen seconds to half aminute, and the effect lasts for some hours (six to eight hours—Fränkel).

As an anodyne, antipyrin has been used chiefly in herpes zoster, lumbago, ataxia, hepatic and nephritic colic, acute asthma, acute rheumatism, and acute gout.

If given in sufficiently large doses it appears to give relief in the majority of cases. Dr. Frankel gave it in all cases in which morphine appeared to be indicated, and did not meet with a single failure. Dr. Jennings, of Paris, however, side by side with many cases successfully treated by antipyrin, mentions a case of acute gout which was influenced by the drug.

If given by the mouth as an anodyne, antipyrin must be used in large doses; thus Professor Sée recommends a dram to a dram and a half in the twenty-four hours, and Professor Lepine one hundred and fifty grains divided in two doses.

In rheumatism and gout the drug appears to be both sedative and curative in its action; it not only allays the pain, but in many cases shortens the attack. Profesor Sée gave it in fifteen cases of hydrarthrosis, which had resisted treatment with the salicylates and also counter-irritation by the actual cautery. In all these cases he found that swelling and pain disappeared in a few days. Dr. Fränkel gave it in thirty-four cases, with the result that in all but two there was amelioration of the symptoms and shortening of the attack. In fifteen cases, however, a relapse occurred. He found that the average duration of acute rheumatism with antipyrin was twenty-five days, while with the salicylate treatment it was 35.2 days. Mr. Raymond Johnson tried antipyrin in four cases of acute rheumatism, with the result that it lowered the temperature in all, but in only one out of the four did it relieve the symptoms. The three cases which were unrelieved by antipyrin yielded to treatment with salicylates, while in the fourth, where salicylate of soda had failed to relieve the patient, antipyrin did so.

To give relief in acute rheumatism or acute gout, large doses of antipyrin must be given, one to two drams during the twenty-four hours being a usual dose. As a rule the drug produces free sweating and rapid defervescence. In chronic rheumatism it acts in allaying the pain and shortening the course of the disease. I have given it in a large number of cases of rheumatism, and in the majority I have found it successful. It appears to me to be a remedy which at least should be tried when the salicylates fail or produce disagreeable after-effects, as they occasionally do. Most of the cases recorded in which antipyrin and the salicylate treatment have been used side by side, for the purpose of comparison, yield either to the one or the other, the refractory