

acetanilide at 10 p.m., purgative in morning. Went asleep shortly after taking powder. Temperature next day normal; no headache; feeling quite well.

In CASE XV, typhoid, young man aged 21, half-hour record of temperature was kept on the two occasions when it was administered, with results similar to Case IX.

The latest accepted theory as to the cause of fever, according to H. C. Wood, Macalister, of Glasgow, and others is, that it is a disturbance of calorification in which through the nervous system, heat production and heat dissipation are both affected; that there is a nervous centre which inhibits the production of heat and a thermogenic centre (located by Aronsohn and Sachs at the inner side of the corpus striatum), which excites tissue change; that heat dissipation is regulated by the vaso-motor nerves; that temperature is no indication of the amount of fever, as heat production may be normal, but elevation of temperature result from diminished heat loss, and we may have increased heat production (pyrexia), but owing to accelerated heat loss, no elevation of temperature, hyperpyrexia ensues when heat production is increased, with lessened heat loss.

Antipyretics act either by lessening the production of heat, as quinine, salicylic acid and the cardiac and vascular depressants, or by increasing the loss of heat, as alcohol, sudorifics, antipyrin, etc. Acetanilide belongs to the latter group.

From the reports of these cases we can learn: That acetanilide in proper doses will, in the elevation of temperature of typhoid fever, pneumonia, erysipelas, septicemia, and doubtless other febrile states, bring about a state of apyrexia, or a sub-normal temperature if the dose is larger, in from two to four hours; the temperature beginning to fall usually in from ten to fifteen minutes after its administration, instead of an hour, as hitherto usually reported; the reduction is ordinarily 5° or 6°, and may be over 8° (Case VI. 8½°). The dose varies from 6 to 15 grs. for an adult, is easy of administration and best given in wine or simple elixir. In an hour or two after the lowest temperature the dose produces is reached, it again begins to rise and in four to eight hours may be as high as before the dose was taken; or it may not run as high again for several days, or even throughout the illness.

Idiosyncrasy or individual susceptibility to the action of acetanilide varies considerably, and in cases where there is not any apparent evidence for anticipating dissimilar effects. Disease also exercises a modifying influence. Cases of erysipelas require larger than ordinary doses. Hence it is advisable to begin with small doses and increase, if necessary, until the quantity which will bring the temperature down to normal, is learned. It first stimulates the vaso-motor (constrictor) system, leading to increased arterial tension, quickly followed by dilatation of the cutaneous arterioles, thus permitting increased radiation of heat; perspiration immediately supervenes and the temperature rapidly declines, with lowered arterial tension. It is an analgesic, giving speedy relief in neuralgic pain and headache, being especially serviceable in the headache present in the early stages of typhoid fever. It is also a reliable hypnotic and nervous sedative in the sleeplessness and excitability of febrile states. It doubtless, in over doses, as evidenced by cyanosis, inhibits the respiratory functions of the blood, probably as has been explained, by so modifying the hæmoglobin, that less oxygen is conveyed by the corpuscles, and a state of internal asphyxia ensues; the diminished oxidation resulting in lessened heat production. It has no influence in shortening the course of zymotic affections; hence in typhoid, would not consider its administration indicated unless the evening temperature was over 103° F., the dose to be repeated every six hours as necessary. No untoward effects result when proper doses are given; on the contrary, it is almost an invariable remark of patients taking the remedy that they feel better, and in a state of apyrexia, may experience hunger. Even in over doses the temporary cyanosis is quickly recovered from without any evil result.

ON THE NECESSITY FOR A MODIFICATION OF CERTAIN PHYSIOLOGICAL DOCTRINES REGARDING THE INTER-RELATIONS OF NERVE AND MUSCLE.

BY THOMAS W. POOLE, M.D., LINDSAY, ONT.*

THE CHEYNE-STOKES RESPIRATION.

What seems a lower depth of absurdity, if possible, has yet to be reached in the explanations of the Cheyne-Stokes respiration. I quote here from Dr. L. Sansom's "Physical Diagnosis of the

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