THE MEDICINAL TREATMENT OF CONGENITAL INFANTILE SYPHILIS.

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BY CHARLES S. SHAW, M.D.

PITTSBURG, PA.

Syphilis is one of that small but happily increasing number of diseases in which special medication can be confidently expected to be followed by certain benefit; its prompt and intelligent treatment, therefore, is of more positive value than is the case in diseases in which the therapy is indefinite, and where remedial agents, especially drugs, are of uncertain action. For clinical purposes the classic division of the disease into three stages is most convenient, though it seems to me the belief of Hutchinson, that syphilis is a true exanthem, running a definite and limited course, is the proper conception of the disease. Under this hypothesis the interval between the initial sore and the appearance of the constitutional symptoms is the period of incubation, the secondary stage is the time of active manifestation of the disease, and the third or tertiary stage is in truth the appearance of sequelæ, and is no more syphilis than nephritis is scarlet fever, or cardiac insufficiency is acute rheumatism. There are many clinical facts corroborating this opinion, which though interesting, are foreign to my subject, and need not be mentioned.

In the treatment of syphilis, the secondary stage, the period of activity of the disease, is the time in which the best results are to be expected. Treatment during the primary stage, even early and complete excision of the initial lesion, has proven unsatisfactory, and, though gratifying results often follow proper medication in the tertiary stage, disappointment is by no means unusual. In the infant we have, as a rule, the secondary stage to treat; the initial lesion never; the tertiary stage rarely, because the child, owing to its slight resisting powers, usually dies of malnutrition before that stage is reached. It is this lack of resistance in the child that makes the treatment of infantile syphilis less uniformly successful than it is in the adult.

In making a prognosis in any case of infantile syphilis my experience has led me to consider as the most important factor, aside from the question of visceral lesions, the nutrition of the child, or rather its capacity to assimilate nourishment. We have all seen children with extensive mucous, cutaneous, and even osseous lesions, who, nursing well and digesting well, will steadily improve, while others, in whom the disease to all appearance is much less virulent, but in whom nutrition is defective, will die. From these observed facts the deduction as to the best method of treatment is obvious—that method which will least disturb nutrition.

The value of mercury in adult syphilis does not admit of question; but in infantile syphilis it is unique, it is the only drug. The iodids, arsenic and iron, so valuable in the treatment of the sequelæ in the adult, have little place with infants, because this stage is seldom reached. While it is true the child may need a tonic, it is a general need and not a specific one. Mercury in some form is a *sine qua non*. It is a question, therefore, of method of administration and choice of preparation.

Four ways of giving mercury are in vogue: by the

mouth, by hypodermic injection, by vaporization, and by cutaneous inunction. The advantages of giving by the mouth are convenience, exactness of dose and control of effects, the disadvantages are slowness of action and the likelihood of digestive disturbances. The advantages of hypodermic injection are rapidity of action, certainty of action and exactness of dose; the disadvantages are pain, which is often severe, and the possibility of abscess. The advantages of the vapor bath are rapidity and certainty of action; the disadvantages are inconvenience, the need of special appliances, and inability to always control its action, severe mercurial ptialism occasionally occurring. The advantages of inunction are certainty and rapidity of action and control of effect; the disadvantages are, uncleanliness, inconvenience and the possibility of cutaneous irritation.

The first and usual method—by the mouth—is contraindicated in infants by the digestive disturbances that so frequently follow the internal use of mercury in them. In adults this is not usually a serious matter, but in view of the supreme importance of preserving and increasing the nutrition of the syphilitic babe, and the danger of digestive derangements, this disadvantage amounts in many cases to an interdiction. The hypodermic method in infants is objectionable because of the pain and of the possible abscess that attend its use; if by any other method we can secure its virtues, certainty of action and control, we may dismiss it as inapplicable. The troublesomeness of the vapor bath is greater in infants than it is in adults, and the danger of mercurial poisoning is certainly not less; it may therefore be considered as of doubtful utility. There remains the fourth method—that of cutaneous inunction. The advantages—certainty and rapidity of action and control—are at least as evident in infants as in older patients, and the disadvantages of uncleanliness and inconvenience disappear altogether in infancy. The question of cleanliness is an individual one, and as the infant has no sense of personal cleanliness, the objection, so forcible with the adult, does not obtain. The question of convenience is also an individual one; the method is certainly troublesome to the adult, but it is not so to the infant nor its attendants. The liability to cutaneous irritation can be completely removed by a little care. In my opinion the evidence is clearly in favor of inunction.

The eligible preparations are the unguentum hydrargyrum of the pharmacopeia and the official 10 per cent. oleate of mercury. These should be diluted with an equal quantity of lanolin, lard or vaselin and they will rarely irritate the skin. The method of administration is very simple; spread about one dram of the ointment on a small piece of cotton or flannel cloth and lay it on the child's abdomen, covering it with the binder; or, more simple still, spread it on that edge of the binder that is first applied to the child's body; every second day bathe the child and reapply the ointment. The warmth of the child's body, the gentle friction produced by its movements, and the activity of its cutaneous circulation all contribute to the speedy absorption of the medicament. Under certain urgent conditions, when it is necessary to quickly and powerfully impress the system, it may be advisable to have temporary recourse to one of the other methods to aid the inunction, but the systematic, persistent treatment may be reduced to this aphorism: There are two ways of treating infantile

syphilis, a right way and a wrong way; the right way is by mercurial inunction, the wrong way is any other way.

THE DEBILITY OF ADOLESCENCE.

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BY LOUIS FAUGÈRES BISHOP, M.D.

NEW YORK CITY.

It has always been a puzzle to me to know just when the specialist on diseases of children gave up his case to the specialist on older people, and just when the specialist on older people gave up his patients to the specialist on old age. This suggests the existence of transition periods. There might well be study devoted to the period during which the child is passing from childhood to maturity. Of course, the child grows steadily from birth to manhood, but there is a period during the latter part of this time to which the name of adolescence is given, a period during which the youth is subject to particular departures from health.

During this period, when the active forces of early development have begun to wane and the solidification of maturity has not yet taken place, the organs are especially susceptible to damage from whatever causes may be active. Thus in early youth the poison of tobacco is badly borne, and functional derangement of the heart is a frequent result from doses of nicotine that at maturity have no such effect. In the same way the acute infectious diseases have a greater liability to involve the kidneys. The tendency to defective action of the blood-forming organs is the cause of the extreme frequency of simple anemia between the ages of 16 and 25. During this period also acute gastric attacks are frequent. Temporary nervous affections, such as hysteria and melancholia are met with in individuals, who during the rest of their life are free from these disorders. Headaches of a persistent and troublesome type, not traceable to any other cause than debility, constitute a troublesome condition. The importance of special attention to these symptoms at this period of life is that their true bearing shall be understood so that a just prognosis may lead to patient management and the final development of the youth into a sound adult. It frequently happens that the debility of adolescence is most marked about the time the boy or the girl would pass from school to college. In some instances this breakdown of the vital forces is so marked that it is advisable to allow an interval in the educational course of, perhaps, a year, devoted to travel or an out-door occupation. Too frequently the boy goes to college and his health falls a victim to irregular hours and mild dissipations that his stronger classmates are easily able to bear. This condition, to which we have given a name, is more difficult to manage on account of its indefiniteness. If we can convict a patient of nephritis, or gastritis, or incipient tuberculosis, it is easy to obtain a hearing for our counsel, but to call it debility is not always enough for the layman.

Then there are certain cases, the care of which is incumbent upon physicians, that are not so easy to define as are particular diseases. One of these conditions is a certain laxness of fiber of the body as a whole, but which manifests itself more especially in certain directions. It is specially common in young persons who have grown rapidly in height and

in bulk but whose organs have apparently not increased in power in a ratio proportionate to the size of the body. These young persons are prone to suffer from anemia, cardiac insufficiency, gastric disturbances and a mild neurasthenia. On account of their size and muscle they are tempted to take part in athletic contests, much to the injury of the poorly developed heart. They acquire by exercise enormous appetites, that when gratified overtax the powers of the stomach and cause dyspepsia. The bad heart action, the disturbed digestion, create a vicious combination when combined with anemia, and may give rise to disturbance of other organs. There may be albuminuria and even edema. This may or may not indicate a real nephritis. So we have the picture of a man, or rather a boy the size of a man, who has outspread in his physical growth the capacity of his organs, and suffers from a deficiency of the blood-making, the blood-circulating, and the food-digesting organs with an accompanying neurasthenia. The question of the management of these cases is a difficult one. Should such a constitution be hardened and developed through work, or should the organs simply be allowed a chance to increase in power by rest? Should the mind be taken out of itself by the forced application of school and college, or should it be diverted by travel or amusement? Then the question of the administration of drugs arises. It would seem that no specific rules are possible. Each case must be managed on its merits. The important beginning is to recognize the condition, and not to write the boy down as a dyspeptic, a case of cardiac disease proper, a case of nephritis, or even a neurasthenic, though any or all of these conditions may exist in their incipency and be possible under bad management. In the average case it is better not to take radical measures, such as removal from college, but rather to protect the weak organs by preventing over-exertion in athletic contests, over-study and depressing surroundings. The tendency to hypochondriasis is great, so that it is important that the boy should be treated as little as possible as an invalid.

The albuminuria of adolescence has recently attracted my attention, especially because of its observation in a particularly interesting case. This has led to the consideration of this organic debility, observed quite frequently in boys and girls just previous to the period when they reach maturity. Thus, often, a boy who during his entire early life has been well nourished and strong, during the period of rapid growth, becomes anemic and emaciated. With this, there is an inability of the digestive organs to properly carry on their work. There is apt to be trouble with the eyes, headache, feebleness of the circulation, morbid nervous manifestations, and a general condition of debility. We can not say these cases are of dyspepsia, neurasthenia or anemia, because they are all three, and yet they are none of these. It would seem that rapid growth, under unfavorable conditions, had for the time being exhausted the organs and produced debility. When this debility has been removed the suspicions of organic disease are likewise dissipated. Like acne, showing the inability of the sebaceous follicles to properly empty themselves, it will last until the tone of the whole system recovers from the strain of adolescence.

In the management of adolescence are to be considered the counter-claims of a system of hardening by exposure and hardship and a system of coddling