DISEASES OF CHILDREN.

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VACCINE THERAPY.

Bulloch, at the Royal Society of Medicine on 1st June 1910, said: "So far as I have been able to learn, the profession can be resolved into four groups with regard to the question of the value of vaccine therapy. There is, first, the clinician, who boldly and publicly asserts that as a result of his experience he is unable to subscribe to the view that the results of vaccine therapy are better than those obtained with other well-tried methods. This group appears to be small.

"There is a second and much larger group who allege this in private, but for various reasons do not assert it in public. This seems to include a large number of clinicians. A third and small group condemn vaccine therapy by word of mouth, but practise it by hand. I feel sorry to refer to this group, and I only do so because I know it exists.

"Lastly, there is a group, in which I reckon myself, who consider that results can be achieved by vaccines which have not hitherto been obtained by other and older methods... I believe we have hitherto seen the worst of vaccine therapy, and better results will be achieved when it is recognised that this method is not to be looked upon as a dernier ressort... The attitude of the clinician is nevertheless remarkable. If a desperate case gets well on vaccines it is alleged to be a question of chance; if it does not get well, the case but confirms the unfavourable opinion which the clinician expressed."

In the course of the year which has passed since Bulloch aired these views considerable changes have taken place in the attitude of many of the medical profession in relation to vaccine therapy. Many valuable data have been accumulated, the method of treatment has become more widespread and more intelligently practised, and though the sphere of usefulness of the therapeutic inoculation with dead cultures of bacteria is still undefined, the practice of this form of treatment is recognised as an important adjunct of therapeutic medicine.

Hamill (Arch. of Ped., February 1911), after referring to results published by Alice Hamilton and Jean M. Cooke (Journ. of Infants' Diseases, 1908, vol. v. p. 158), Butler and Long (Journ. of Amer. Med. Assoc., 1908, vol. i. p. 744, and Ibid., vol. ii. p. 1301), and Churchill and Soper (Journ. of Amer. Med. Assoc., 1908, vol. ii. p. 1298), regarding the treatment of gonococcal vulvo-vaginitis in young children by means of a gonococcic vaccine, which went to show that the effect on the disease was by no means marked, quotes Hamilton (Journ. of Amer. Med. Assoc., 1910, vol. i. p. 1196), whose results were much more
favourable. Hamilton treated 84 cases with vaccines, and had 76 cures and 8 failures. The cure consisted of an absence of gonococci after four bacterial examinations of the secretion from the vagina, made at intervals of a week, followed by two examinations at an interval of two weeks. Nineteen of his cured patients were seen five months after the last evidence of infection had been present and were all found free from gonococci.

Howland and Hoobler (Arch. of Ped., September 1910) write: "We have used stock gonococcus vaccines as a routine measure in the vaginitis ward of Bellevue, in conjunction with the usual irrigation treatment. Several cases in the outpatient department have been treated with vaccines alone. In many cases the combination of vaccine and irrigation treatment cause the discharge to be very greatly diminished or to disappear, but the period of observation was not sufficient to enable us to draw any conclusions as to the ultimate outcome. A few cases in the hospital treated until the discharge had ceased appeared in the outpatient department with a profuse discharge. We have not been impressed by the efficacy of this form of treatment, and believe, with the majority, that it improves symptoms but rarely effects a permanent cure."

Howland and Hoobler also treated over fifty children suffering from pneumonia with pneumococcic vaccines, but were unable "to report any apparent beneficial results from their use, nor were there any unfavourable ones." Both autogenous and stock vaccines were used in these cases.

The same authors found that cases of general furunculosis usually yielded readily to treatment by autogenous vaccines of *staphylococcus pyogenes aureus*, and they say, "Our experience with autogenous vaccines in localised staphylococcus infections has been entirely satisfactory. Their value can hardly be over-estimated." They also report 3 cases of staphylococcal septicemia successfully treated by vaccines.

Local infections due to the streptococcus, such as empyema and otitis media, yield less readily to vaccine treatment than do similar infections due to the staphylococcus, while in cases of general streptococcal infection it is usually difficult to tell what part the vaccine played in the favourable issue.

Treatment of local and general conditions caused by infection with *bacillus coli* has been largely carried out, but few results have been published.

As regards treatment with tuberculin Hamill says: "In summing up, it may be repeated that the results from the vaccine treatment are much more satisfactory in early life than in later life, and localised tuberculous lesions, especially the glandular types of tuberculosis, are much more favourably affected than the pulmonary type, especially those with generalised symptoms."
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**ALBULACTIN.**

Within the past few months this much vaunted powder has been widely used by practitioners in cases of difficulty in infant feeding. Atrophy, malnutrition, marasmus, inanition, prematurity, diarrhoea, and vomiting are only some of the titles of affections which are reported to have responded as by magic to treatment by this soluble powder consisting of the albumen of cow's milk.

Papers such as those by Harris and Coomber (*Med. Times*, 29th April 1911) and Wainwright (*Med. Magazine*, March 1911) have been published to show the value of its employment, but their results are by no means conclusive to the unbiassed reader. The exact determination of cause and effect in infant feeding is a complicated problem.

Theoretically the provision to practitioners of albulactin is a distinct step in advance, more particularly in a country where the finer modifications of milk are not usually practicable. And practically, so far as can be at present determined, and so far as the experience of the present writer goes, albulactin answers extremely well to the expectations formed of its dietetic value.

**THUMB-SUCKING.**

Kiernan (*Pediatrics*, April 1911) controverts the theory of Freud that thumb-sucking is an auto-erotic phenomenon.

Freud says: "Thumb-sucking, which manifests itself in the nursing babe, and which may be continued until maturity or throughout life, consists in a rhythmic repetition of sucking contact with the lips wherein the purpose of taking nourishment is excluded. Pleasure sucking is connected with an entire exhaustion of attention, and leads to sleep or even to a motor reaction in the form of an orgasm. The most striking character is that the impulse is not directed against other persons, but that it gratifies itself on its own body. It is, moreover, clear that the action of the thumb-sucking child is determined by the fact that it seeks a pleasure which has already been experienced and is now remembered.

"We would say that the child's lips behaved like an erogenous zone, and that the excitement through the warm stream of milk was really the cause of the pleasurable sensation. To be sure, the gratification of the erogenous zone was at first united with the gratification of taking nourishment, but the desire for repetition of the sexual gratification is separated from the desire for taking nourishment. Not all children suck their thumbs. It may be assumed that it is found only in children in whom the erogenous significance of the lip-zone is constitutionally re-enforced. Children in whom this is retained are habitual kissers as adults and show a tendency to perverse kissing, or as men they have a marked desire for drinking and smoking."
Kiernan, on the other hand, contends that the phenomena of sucking have not the specific simplicity claimed for them by Freud. To the reflex of sucking he applies the term reflex of aggression; to that of vomiting, reflex of rejection or repulsion.

The conscious movements based on these reflexes are termed respectively movements of aggression and repulsion.

After discussing the physiology of these types of reflex and adducing examples he says: "There is no order of movements which, under the cover of instinct, can be pushed in between conscious and reflex movements. The first instinct of a child would be the instinct for food. There is absolutely nothing in the sensation of hunger which would acquaint the child with the means of remedying this pain. It attains naught but the concept of pain. In the general restlessness it displays and in the convulsions ultimately resulting from anemia there is nothing which could be likened to an instinct for food. If the child has not to depend on its own resources, but has a nipple put into its mouth, then the sensation thus excited starts the reflex mechanism of sucking. The child has thus acquired the concept that the sensation of satiation is connected with the act of sucking, and these two sensory memories are associated with the innervation-sensations aroused by sucking, and probably by the scent of the mother's breast. That a child should suck at every finger may be attributable to a reflex mechanism, but the sucking of the child in dreams proves that the act of sucking has produced images which have been registered in the cortex. The factors of this primary abstract ego are not definitely defined. . . . The nature of the ego does not depend upon any definite order of memories, but is determined simply by the most firmly fixed memories. . . . As soon as movements of aggression have taught the child to take hold of things it is evidently under the impression that it is living in a world of sweets; it takes everything to the mouth and licks it. A later aggressive movement—kissing—like the first sucking movements, is probably based upon the act of bringing an attractive object to the mouth. This latter movement is clearly dependent upon a powerful secondary presentation aroused by its impressions, just as the sucking movements during sleep denote secondary presentations excited in the course of dreams. Erethism may appear at birth, and an accidental co-existence of any motor display might lead to an association which under the rhythmic law of the nervous system would tend to recurrence, the erethismic state awakening the motor display, and the motor display arising from another cause, tending to arouse the erethism. The condition here is essentially that of the erotic symbolisms or fetishism phenomena at the sexual orgasm when great emotional exaltation exists, and the will is in abeyance in consequence. A man may be then seized by an obsession differing in character from the voluptuous. Seeing a woman's shoe, he
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is unable therefore to experience sexual emotion without this conception. This amply suffices to explain all auto-erotic phenomena of thumb-suckers. These are of fortuitous origin not necessarily part of the practice.”

MENTAL DISEASES.

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THE CORTICAL NERVE-CELLS IN GENERAL PARALYSIS.

Laignel Lavastine and Pitulescu have examined the brains of three general paralytics by means of Bielschowski’s method, and report the results (L’Encéph., December 1910, p. 417). They also examined the brain of an old man who died without any mental disturbance at the age of 90. They introduced a few modifications into the method, and these are described. The examination was directed especially to the state of the neuro-fibrils of the nerve-cells of the cortex. They report that in all the three cases of general paralysis they examined these neuro-fibrils were found to be diseased. The intra-cellular fibrils were affected to a greater degree than the extra-cellular, and those of the small pyramidal and polymorphous cells than of the large pyramidal and giant cells. The change was most unevenly distributed, healthy cells lying side by side with others extensively degenerated. The change is therefore not a general one, but affects individual cells. The most vulnerable parts of the cell are the base near the axone and round the nucleus. The dendrites appear to be specially resistant. They give what they conceive to be the stages in the process of degeneration, and state that many of these can be seen in a single cell. They, however, make no suggestions as to the pathology of the process. The microscopic changes observed are illustrated in three plates.

BODY TEMPERATURE IN PARALYTIC DEMENTIA.

A. B. Coleburn reports the results of his investigation of this subject (Amer. Journ. of Ins., April 1910, p. 551). The number of cases studied is not mentioned, but the records were kept in some cases for two years continuously, the temperature being taken every four hours day and night. The results were compared with a standard daily chart for a healthy person prepared by various observers. Examinations of the blood were made from time to time to investigate the relation of the temperature to the number of leucocytes.

He arrives at the following conclusions:—In the early stages of