"I was called to see Mrs. —, in a state of debility, worn out with discharges from the vagina of long standing; and, on examining *per vaginam*, I found behind the cervix uteri, and a little to the right of the mesian line, a small opening as large as a goose-quill, into which the finger-nail entered, and grated against a hard substance, which was concluded to be bone. Higher up, a small tumour could be felt in the posterior wall of the uterus. On consultation with Dr. Butcher, this opening was enlarged by me; and Dr. Butcher removed the bones of a foetus in detached portions denuded of soft parts, and much discoloured, indicating development to about the third month. Some bones were subsequently expelled with the discharges; and the cavity, on being examined by me, seemed to be large enough to contain a good sized walnut. Her health improved immediately after the healing of the abscess, which was speedily accomplished, and her periodic health became regular and moderate, with total subsidence of sanious and leucorrhoeal discharges, to which she had been for eighteen years more or less liable."

The question that remains an open one in this case is, whether any rupture of the cyst occurred; and, if it did, at what period of the pregnancy? If rupture occurred, it must have been about the 25th of October, when the acute abdominal suffering occurred, for which Sir Henry Marsh and Dr. Dwyer treated her; but she evinced no symptoms of internal hæmorrhage; therefore, if the rupture occurred, no serious amount of blood could have made its way into the abdomen. The absence of any increased size or tumour in the abdomen further confirms there having been no hæmorrhage in this, as was the case in the two preceding cases. Another feature of interest, that creates a doubt as to the exact period at which the development of the germ ceased, is the fact of Dr. Dwyer having detected the placental murmur exactly a month after the occasion of the violent pains on the 25th of October. It will, no doubt, be in the recollection of my hearers, that, in the year 1833, I put forward some cases of murmur existing after the death of the foetus, but altered and more abrupt in its character; and this may probably have been the case here.

THE APPLICATION OF MODERN IDEAS TO INFANTILE THERAPEUTICS.*

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(Concluded from page 46 of last number.)

LET me digress for a moment, for the purpose of pointing out that the knowledge of the generalised actions of drugs should direct us to the utility of combining several similar ones in coping with disease. In this way, the maximum of effect is produced with the minimum of danger. Brown-Séquard tell us that he has seen greater benefit accrue from the use of many remedies combined together than from either of them alone, and furnishes us with a formula for a pill containing seven neurotic agents of great potency. These considerations are in opposition to the principles of one school of medical thought, which relies on the effects of a single drug administered at one time, and inveighs harshly against polypharmacy. It is, however, probable that in abstaining from associating medicines we yield advantages, while we run dangers otherwise capable of being obviated. By such association we lose the charm of simplicity; but is not disease a deviation from the simplicity of nature?

The principle of the universal effects of our therapeutic measures, and consequently of their necessarily limited use, was once very well seen in the effects of blood-letting. This belongs to the direct class of measures; in pursuance of their belief that they could jugulate the inflammatory process in pneumonia, our predecessors took away from fifty to one hundred and twenty ounces of blood. They sought to obtain their end by emptying the lungs of blood, and, out of the sudden great loss of the nutritive fluid, to create a profound impression; in other words, a shock throughout the system. Doubtless they sometimes actually gained their object; at others they destroyed the subject of the inflammatory process. Even when the pneumonia was strangled, they brought about endless evils by the immense depletion practised. These eminent men lost sight of the principle I just mentioned. They acted as if the lungs could be emptied of their blood without devitalising the medulla oblongata and the semilunar ganglia; as if the respiratory organs had a nutritive supply independent of the rest of the body; and as if this independent mass of blood could be separately abstracted from the system by means of an opening in one of the veins at the bend of the elbow. These assumptions seem to us absurd; but they may teach the lesson that our indirect medication by drugs must submit to the limits imposed on the direct

medication by blood-letting, and that any part of the system is only reached when the whole has been penetrated.

Moreover, the practitioners of the past forgot that we cannot soften or harden, eliminate or cicatrise. They did not know that exudation, proliferation, and vasation are equally outside the reach of the modifications of art. In what their blood-letting did result, as compared with other methods, is easily seen in the table given by Dr. Jaccoud, in his clinical lectures. The mean mortality in pneumonia, treated by blood-letting alone, by Dietl, and at Edinburgh, was 27.06 per cent.; by tartar emetic alone, by Dietl and Rasori, 21.38 per cent.; by mixed treatment, *i.e.*, expectation in mild cases, blood-letting and emetics in serious cases, by Grissolle, Laennec, and Skoda, 14.25 per cent.; by pure expectation, *i.e.*, abandoned to itself, 7.4 per cent.; by tonic medication exclusively (Bennett), 3.10 per cent. Jaccoud's comments on these figures are the following: "The mortality is lowered in proportion to the diminished energy of the treatment; and the pretended curative virtue of these medications is thus estimated with a mathematical severity. As for digitalis, the comparative researches of Thomas of Leipsig, have established the fact that, in spite of its powerful action on the pulse and temperature, it does not diminish by one hour the duration of pneumonia, and in no way modifies the natural defervescence. The figures shew you, besides, that the minimum mortality is obtained by the exclusively tonic treatment, *i.e.*, with quinine, wine and a light alimentation, even during the stationary period. This is a most remarkable result." (P. 71.)

If these ideas are of moment in general medicine, they are of infinitely greater weight in the domain of pædiatrics. Infancy is the period of acute diseases, and especially of those which run a rhythmic course, with a well defined ætiology, a period of incubation, of rise and of decline. If we exclude infantile paralysis, some cutaneous disorders, and the chronic wasting derived from improper or insufficient food, we have here only to deal with what, to adopt Dr. Gull's phrase, must be called the storms of pathology. It is true that rachitis, scrofula, hereditary syphilis, do not belong to the category of acute diseases, being eminently chronic. But an exact classification must exclude them from the list of diseases proper.

They are, for the most part, germinal in origin, and find their centre in intrauterine, or even in ovarian life. They are malformations not less real than hare-lip; though, instead of being confined to an external part of the body, they infect its whole life. From hygiene, alimentation, time, and the long-continued employment of analeptic medication, we mainly hope for the restoration of the tissues to the physiological standard.*

The diseases of children run on at a pace which baffles art. In a moment, laryngismus or a convulsion may compromise life. In twenty-four hours, scarlatina, croup, and diarrhoea, will often run their fatal course. In a few days, pneumonia, some forms of meningitis, intussusception, and noma, pass through all their stages. In most of these and many other diseases, we can avail ourselves only of indirect treatment, the limits of whose efficacy are far narrower than among adults.

The most powerful direct means of arresting the course of disease, that of blood-letting, is closed to us in infancy. Loss of blood is ill borne in children; the shock attendant upon it is worse borne. The wild efforts of our ancestors to conquer nature and subdue disease by this form of depletion are both more noxious and more fruitless among the young than among the full-grown. My last illustration of this was a case of gangrene of the lips after measles. Great hæmorrhage ensued, but it did not prevent the child from dying of pneumonia some days afterwards. The child is unable to resist an amount of disease which would scarcely be competent to endanger the life of a man. There is a higher unity of the system in childhood, as Barthez and Rilliet have pointed out. The whole is more impressionable and sympathises more readily and more deeply with the several parts than in adult life. A convulsion, syncope, or diarrhoea, may come to vanquish our hopes long before the full pathological development of the particular disorder has been completed. Owing to this condition of things, while the drug administered may be rendering service, its effects may be frustrated by an accident; or it may become itself the cause of accidents, for the nerves, vessels, and blood of the part are but a fraction of the physiological integer.

The peculiarities of children in the pathological state meet us on all sides. An intense febrile accession of the most alarming nature may occur, vanishing in a day or two, without giving the smallest clue to its causation. The most fatal of their diseases, tubercular meningitis, is often heralded by symptoms so trivial as to escape the notice even of the parent. Hoarseness and stridor may mean exudative croup, demanding active medication; catarrhal croup, requiring only the simplest procedures; or, the onset of measles, disappearing of itself as the erup-

* Read before the Birmingham and Midland Counties Branch.

* I make a reserve in reference to mercury in syphilis.

tion comes out. Vomiting may be the only marked sign of disorder. Over-eating, improper food, gastric catarrh, the advent of scarlatina or of meningitis, may be the thing signified by it. Though time is so important, our diagnosis has to wait, and on it must wait our therapeutics, for a random stroke among infants is full of peril.

Still more remarkable is the fact that diseases well defined in adults show a less marked structural change in children, and entail death when ordinarily this termination would not be feared. Hence the practitioner who fails to note the principle just named, the higher impressionability of the organism in early years, will see children die unexpectedly, when the physical changes of the organ are far less in extent and development than would appear likely to endanger life. Even typhoid fever presents important differences as compared with the same disease in adults. The characteristic lesions of the intestinal glands, submucous tissue, and spleen, are very moderately developed among children. Ample evidence of this is to be found in the classical works of Barthez and Rilliet, and Alfred Vogel, whose observations I have often confirmed. The practical deduction to be made is, that we must not estimate the gravity of the case from the absence or presence of severe diarrhoea, hæmorrhage, or perforation. We must also infer from this order of facts, that the child's strength may need all we can do to sustain it, from the general sympathy of the body with the special processes going on in organs, while the evidences of those processes may be little developed.

Typhoid fever supplies us with a striking illustration of the object of this paper. There is scarcely a drug, mineral or vegetable, which has not been advised as curative of this malady. From quinine to mercury, remedy after remedy has been declared able to control its course. What are the facts? Under the most varied treatment, only from 5 to 10 per cent. die, the mild and severe cases being collected together; and I believe that under a judicious expectation these results may be improved. As to drugs, the last English writer on children's diseases, Dr. Hillier, speaks in a manner so decisive, that I must give the passage. "In the vast majority of cases of typhoid fever in children, drugs are scarcely needed. The points to be attended to are: to keep the patient in bed in a well ventilated room, to attend scrupulously to the removal of all discharges, to bathing the skin once or twice daily with tepid water, and to a frequent changing of the bed and body linen. Diet is also of supreme importance; it must be light, fluid or pulsaticeous, and nutritious. Milk and beef-tea should form the chief articles of nourishment; they may be combined with arrow-root, semolina, vermicelli, or ground rice. Eggs may also be given, beaten up in milk, or combined with wine or brandy. If there is great thirst, cold water, in small quantities at a time, or cold tea may be given. No solid food should be given until the end of from twenty-one to twenty-eight days, and must be forbidden for a longer period if diarrhoea continue. I have already spoken on the use of stimulants. They are indicated, in the majority of cases, from the end of the tenth or twelfth day." The author goes on to treat of the measures needful to restrain excessive diarrhoea, etc.; but the above quotation gives a complete view of the general treatment of the disorder, and offers an excellent model of the numerous attentions demanded of the physician apart from the employment of medicines.

I have occupied myself at such length with the exposition of principles, that I have left no space for their detailed application. Notwithstanding, I must refer to one branch of therapeutics, having an essential relation to the peculiarities of children. I allude to the use of alcohol. It has been already remarked that the modern practice of medicine takes more heed of the patient than of the diagnosis. If, as I believe, excesses have been committed in England in this aspect, the balance on the whole inclines to the side of profit. The description just given of the specialities of the child's physiology and pathology, has been to little purpose if it have not become apparent that the careful stimulation of children is even of more moment than among adults. A practitioner should always deliberately ask himself this question at the bedside of a child—Is his strength giving way? In infancy, it is indispensable that a well-adapted food should be frequently given; the temperature becomes lowered with great rapidity under certain unfavourable conditions; while long-continued pain and large and numerous discharges soon exhaust the power of resistance. We have, in alcohol, a precious resource, in aid of food, enabling us often to preserve the child even under the most unpromising circumstances. Here British medicine has achieved a real advance, of which abundant proof can be found in the essay, published last year by Dr. Gingeot of Paris, "On the Therapeutical Employment of Alcohol among Children." It is confessedly based on work done in this country, and contains valuable evidence of the utility of this agent in many severe diseases. I am convinced that it is not yet used among children as systematically as is desirable. I would, however, add the caution, that excessive stimulation is to be sedulously avoided in childhood. The amount of brandy ordered by some physicians in children's diseases fills

me with astonishment, for its perturbative effects in large doses are most grave at an early age. All the good it is capable of rendering is obtainable from an ounce to an ounce and a half in twenty-four hours. Much less than this is all that is required in very young subjects.

I wished to add something on the use of mercury, opium, antimony, purgatives and blisters, in reference to children; though, in truth, I find it easier, as the Roman said of Carthage, to be silent than to speak little of them. I shall content myself with stating that he who least often and least freely avails himself of these and similar means of medication, will be the most successful in practice; and that he who pays most attention to prevention and hygiene in their comprehensive sense, will save the largest number of lives. In this latter aspect, our field of labour is hourly expanding; and every member of the profession must feel it to be a noble task to work a portion of that field.

I will conclude by declaring that in infantile pathology there are two salient points to be kept in mind; and Dr. Jaccoud has so well stated them in reference to one disease, that I shall quote his words. "In short, do not forget that there exist pneumonics, and not pneumonias; and you must not confound rational therapeutical reserve with the inertia of a foregone conclusion."

LETTSOMIAN LECTURES

DELIVERED BEFORE

THE MEDICAL SOCIETY OF LONDON
IN 1869.

By WILLIAM ADAMS, F.R.C.S.,

Surgeon to the Royal Orthopædic and Great Northern Hospitals, etc.

LECTURE I.

Acute Rheumatic Affections of the Joints; their Pathology and Treatment.

AFTER referring to the great advance made in the modern treatment of joint diseases, a result obtained by our more exact knowledge of structural anatomy, and the physiology of nutrition, as well as the study of inflammation in its physiological and pathological bearings, Mr. Adams proceeded to consider whether the classification and description of joint-diseases should be made upon an anatomical or on a pathological basis. He preferred the pathological arrangement, considering that the anatomical basis might lead to a much too narrow view of the pathology of diseases of the joints, in reference to the constitutional conditions upon which they depend.

As some authors consider the synovial membrane, and the cancellous tissue of the bone, to be the only structures liable to primary inflammation, Mr. Adams produced some evidence to show that both the ligaments and articular cartilages were frequently the primary seat of disease; the ligaments suffering from inflammation after sprains and injuries which, when occurring in strumous constitutions, frequently led to complete destruction of the joint, as seen in hip-joint disease; which, Mr. Adams believes, generally commences in the round ligament.

The articular cartilages are liable to changes of nutrition, scarcely separable from the effects of inflammation in its more chronic form, such as fibrous degeneration; and also hypertrophy, and subsequent ossification, which Mr. Adams first pointed out as occurring in the production of osteophytes in chronic rheumatic arthritis. They are also believed to be the seat of true inflammatory changes, as represented by the textural changes of cell-nutrition; and Professor C. O. Weber considers that supuration may occur in the texture of articular cartilage. Mr. Adams, however, expressed some doubt upon this point, though admitting the other inflammatory changes.

A very large proportion of all the cases of joint-disease met with in practice, are associated either with a rheumatic or with a strumous constitutional condition; and the influence which these constitutional conditions exert on the local affection, Mr. Adams proposed to make the special subject of the present lectures, thus regarding joint-diseases from a constitutional point of view.

The first, and indeed the great question to be considered, is—To what extent is the inflammatory process, when affecting the joints, modified with respect to its results, or so-called terminations in adhesion, suppuration, and ulceration, by the constitutional conditions of rheumatism and struma? Mr. Adams believes the general law of rheumatic and strumous inflammation to be that in the rheumatic form, whether acute, subacute, or chronic, there is no disposition to the destructive processes of suppuration and ulceration; whilst a disposition to those destructive processes constitutes the chief pathological characters of the strumous inflammation.