chlorine would prove of some avail. But many are specific and require specific remedies, as in the cases of the morbid poisons. Thus mercury will neutralize the virus of syphilis, vaccine lymph will counteract variolous matter, and sulphur that of the itch; and it will be well for us, when we can add to the number of such certain facts, so as to contend against typhus, scarlatina, or cholera, with success. The local inflammation is to be treated in the same manner as phlebitis, and absorption is to be promoted by the application of heat, and such discutients as camphor, iodine, or mercury, or ammoniacum.

The chronic enlargements which occur in the lymphatic and other superficial glands in the scrofulous, with depositions of tubercular or suborganized granular matter is of a nature very different, at least from acute inflammation; though this may supervene afterwards, under the irritating pressure of the accumulated deposits. They are very apt to occur in the strumous habit, whenever it becomes exposed to cold, or to a continued poor diet with confinement. Thus they are most common among the poor, in prisons and workhouses. We know that, under such circumstances, the absorbents are most active on the living structures of the body, and therefore the least organized portions of the frame are likely to find their way in greatest abundance into the lymphatics. There, therefore, appears to be an occasional accumulation of tuberculous matter in the larger receptacles of that system, which is well understood as the ordinary form of struma, and into the scientific theory of which I shall enter when we come to treat of the morbid condition of the blood and of the ganglionic innervation. You have had many opportunities of observing this morbid condition in the Queen's Hospital, and how readily it may sometimes be subdued by sound nourishment, and free air, along with iodine and cod-liver oil, with iron and phosphate of lime; but the cases are too numerous to be recited. Although mercury is almost universally used in the strumous affections of childhood, a certain prejudice has sprang up against its employment in the same cases in after life, as being dangerous in the extreme. I do not see any sufficient grounds for such a supposition. Doubtless, the manner in which mercury was wont, in former times, to be employed by certain parties, must have weakened the general system, and so increased the disease; and the exception made in favour of children was simply due to the fact that they are less liable to the peculiar effects of that metal than adults. But I can have no doubt that, if judiciously employed, merely as an alternative, and not as a salivant, mercury is just as useful for the struma of the adult as of the child. Indeed the fact has been demonstrated here by the very successful results that have been witnessed from the iodine and mercurial ointment, as well as the mercurial plasters, which have first subdued the inflammation, (when that has happened to supervene,) and next caused the disappearance of the tumour. A very great object is to avoid deformity from the ulceration of these swellings, especially about the neck, and therefore every means that can be devised for discussing the tumours, such as leeches, mercury, iodine, ammoniacum,

and the like, should be promptly applied. The ferruginated cod-liver oil, is more a preventive perhaps, than a discutient, and acts after the manner of an improved diet. When irritability exists, sedatives must also be used, especially conium. To sum up, the treatment I generally adopt, and with perfect success, is as follows:—To abate inflammation when present, and to soften the induration by local abstractions of blood, poulticing, and the exhibition of mercury either internally or externally; next, to promote absorption and sooth irritation by such a combination as iodide of potassium and conium; and lastly, to prevent further degenerative action, by tonics, nutrients, fresh air, and all the other adjuncts of the tonic regimen. Such a degenerative action has a constant tendency to recur, and must be as constantly combatted by dietetic regulations. We must, therefore, enjoin a liberal use of albuminous food, and from time to time aid the formation of a proper plasma, by the exhibition of oil, iron, and the calcareous phosphates.

ON ARTHRITIC HEADACHE.

By WILLIAM HARVEY, Esq.,

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IN my former papers on rheumatic inflammation of the ear, I observed that the headache and distressing noises succeeded as a consequence of the attack on that organ. In the arthritic variety, however, this is not the case, the head becomes affected for some time prior to its manifesting any disturbance in the ear, and as the symptoms are often very much mistaken, I have thought it essentially necessary to direct attention to their early character; I shall have occasion, however, to allude to some cases which will immediately follow this paper, wherein the ear becomes the seat of mischief from the first. The noises and benumbed sensation of the head, accompanied with intermittent hemicrania, neuralgia of the facial nerves, pains affecting the eyeballs, the ears, the fauces, the teeth, and the lumbar regions, are all premonitory of this diseased condition. I have, in some instances, witnessed for days, the tonsils so sharply seized with gout, as in the absence of any considerable degree of inflammation and careful history, to question for a time the fact; it sooner or later, however, is explained by a seizure of gout, which solves the mystery. When it attacks the ear, the lobe is generally the part, becoming swollen, intensely red, and exquisitely painful, lasting for days and sometimes weeks, attended with deep and distressing noises, referred to the interior of the head. Dr. Holland observes, that it is somewhat difficult to class the several forms of intermittent headache with other affections of this kind, but those having lengthened periods of intermission, may perhaps, best be noted here. The equality of time often observed, even where the intervals extend to two or three weeks, or yet

longer, is a very remarkable feature in these cases, and denotes a cause, specific in its nature and uniform in its operation. I know instances where such intermittent headaches have occurred during the greater part of a protracted life; more frequently, however, it happens that they affect especially certain periods of life, in this, as in many other circumstances, showing singular relation to various disordered actions of the gouty constitution. In conformity with the same relation, there is reason to believe that the kidneys are the excretory organ most concerned in giving relief in these cases, and principally by an increased separation of lithic acid, or its salts. Such action may readily escape notice where the attention is directed by the presence of pain to another part, but I infer it on close observation of many intermittent headaches, and think the remark likely to be confirmed by others.

Gouty affections of the head constitute one of the most dangerous and most formidable varieties of disease, dependent on or caused by arthritic diathesis. Gout in the head, as it is popularly termed, may be met with either in the form of arthritic headache, or of arthritic apoplexy. The former, indeed, is often the precursor of the latter, and not unfrequently, when it has been mistaken and consequently maltreated, ends in it.

Arthritic headache is a disease that often escapes detection, especially if the patient has not previously had a paroxysm of gout in its regular form, so as to aid the judgment of the practitioner in forming a diagnosis. The symptoms which mark the disease, are attributed to an ordinary determination of blood to the head, or rather to the brain, and the treatment is in accordance with such views. A greater mistake could hardly be committed, for all depletory measures in the treatment of gouty affections of the brain and its membranes are injurious, yet such constitute the principal remedies employed to relieve the consequences of determination of blood to the brain. As it is very generally, although not always, that the head, and subsequently the ear, become affected by the metastatic action of gout, I cannot better allude to the subject as a confirmation of my own views, than by quoting the forcible and clear description given of it, by Dr. Gairdner. He observes:—"That metastasis to the head appears by far the most usual of misplaced gout. It occurs with every degree of suffering. The headaches from which those persons suffer, in whom the excretions of urates and urea have, from any cause, been suddenly diminished or temporarily arrested, are only a commencement of this affection, which may well be likened to the effect of a poison. I believe that the substance of the brain itself is the part usually affected in these cases, and my reasons are, that they are never attended with delirium or wandering, but always accompanied by stupor or apoplexy, the ruptured vessel is found in the cerebral substance. It has been said that such cases are to be treated like apoplexy from any other cause. I am quite satisfied that this information is most dangerous. Patients affected with gout in the head do not bear the abstraction of large quantities of blood. Much

regard must be had to the heart, which is always more or less diseased, and sometimes in an advanced state of disorganization. We may easily and quickly relieve the worst head symptoms; but if the relief afforded be not meted out with wariness and skill, we shall too surely discover that we have fastened on our patient worse and more hopeless evils. The abstraction of much blood is, however, wholly unnecessary. A relief given to the system by a small bleeding, will enable the kidneys to resume their office, and the worst symptoms will then safely depart."

In these cases colchicum is a most useful remedy. I have mentioned the discovery of Chelius, MacLagan, and Servius, that it greatly increases the secretion of urea. The application of this fact to the case in hand, must be obvious to all, and the effects of the medicine will fully answer their expectation; but here, too, I would insist on the propriety of using minute doses of the remedy, which more safely and not less effectually, than larger ones, accomplish the objects in view. Laxatives in head cases are always necessary; and even drastic purgatives may be required. Prudence, however, is indispensable in their use; for while no constipation is permitted which would urge the blood to the head, regard must be had to the patient's shattered condition. Precise rules cannot be laid down; but the experienced physician will hardly err, if he do not lose sight of the impaired condition of the circulation, at present labouring under a double disadvantage from the oppressed state of the brain, in addition to disease of the central organ."

Arthritic headache, then, is a disease which demands considerable discrimination and close observation to detect, based on the information obtained by extensive experience, as it is only by distinctive signs, which, by some may be regarded as apparently trivial, that we shall be enabled to determine the true nature of the attack.

It occurs generally among those in whom gout fails to show itself in the ordinary way, but remains lurking in the system ready to pounce upon any organ which, by fortuitous circumstances, may be liable to take on diseased action. The higher classes of the community, among whom gout is frequently an heir-loom being in many instances transmitted by both parents, are far more liable to this form of metastatic gout than are either the members of the middle or of the lower orders of society. It is, likewise, found more readily to affect the females of a gouty family than the males, and more frequently after certain periods of life have been reached. The younger members, and the male branches, do not meet with absolute immunity from arthritic headaches, but they are much less subject to attacks.

The symptoms which are not pathognomonic of this disease are,—a sense of fullness in the head, generally constant, but liable occasionally, from casual circumstances, to change into severe pain; a feeling of vertigo or giddiness, and as if a movement were occurring in the head—a feeling to which the attention of the patient is continually drawn, and which, apparently, impairs the power of thought and of memory; all the perceptions

are confused, and the patient at the same time experiences a sensation as if he were about to become insensible. If he stoops, he is apt to be seized with temporary blindness, the hearing is inordinate'y acute, the least noise rendering him almost distracted; he is frequently troubled with a buzzing sound, and sometimes with other noises in the ears; flushings and heat pass at times over the head and face; the hair is often tender and painful when touched, and the scalp feels hot, constricted, and uneasy. With respect to the general symptoms which attend upon this state, they are such as indicate a disordered condition of the digestive apparatus, and an ill-regulated and badly-formed secretion.

The function of digestion is most frequently very imperfectly performed; flatulence, with acid eructations; a sense of weight and general uneasiness at the pit of the stomach; rumbling in the bowels; an unpleasant acid or bitter taste in the mouth; the tongue furred with a brown fur, with occasional yellow streaks; a disordered state of the bowels, which are sometimes confined and at others much relaxed, the stools being generally clay-coloured, shewing a deficiency of bile, or else very high-coloured, dark, and offensive, showing a redundancy of that excretion, but in a very unhealthy state; the urine unusually scanty, and high coloured, and depositing a reddish sediment on standing, with a rough dry skin, are symptoms which indicate a general disarrangement, and an imperfect performance of the ordinary functions of the body, by which the effete matter of the frame is got rid of by means of the secretions and excretions, and fresh pabulum or material furnished to supply the waste of the system. Meanwhile, in the midst of much disorder of the secretive apparatus, the pulse generally remains undisturbed, or, if at all altered, shows a diminished rate of circulation, —a lessened degree of tone in the system.

The symptoms are those that are found to be placed almost beyond the possibility of a doubt. It is the result, I conceive, of a morbid condition in the function of sanguification, or perhaps of the immediate preparatory process or chylication, by a failure on the part of the kidneys to perform rightly their secerning duties, by which the separation of urea and uric acid upon the blood should be effected. The presence of this acid in the circulating medium, then, may be regarded as characteristic of the gout, and the fact ascertained by Chelius, of Heidelburgh, that in the course of twelve days, under the administration of colchicum, the kidneys are excited to abstract from the blood nearly double the quantity of uric acid they had previously separated, will amply serve to explain the remedial influence of colchicum in the relief of the disease, and the manner in which the influence is excited.

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(To be continued.)

ON THE PROGRESS OF PUBLIC HYGIENE AND SANITARY LEGISLATION IN ENGLAND, AND THE ADVANTAGES TO BE DERIVED FROM THEIR FURTHER EXTENSION.*

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Read before the Leeds Philosophical Society, March, 1851.

IN March, 1842,† a Select Committee was appointed to consider the expediency of framing some legislative enactment to remedy the evils arising from the interment of bodies within the precincts of large towns, or of places densely populated. Mr. Mackinnon took the lead in this inquiry, and our member Mr. Beckett, was an active member of the Committee. The result of this inquiry, and of the mass of evidence given, showing the injurious and pernicious results arising from this interment within towns, was the report "that the practice of interment within the precincts of large towns is injurious to the health of the inhabitants thereof, and frequently offensive to public decency; and that it was expedient to pass an Act of Parliament to prevent it, with some few exceptions." The other recommendations and particulars it is unnecessary to dwell upon. The construction of new cemeteries was one of the good results; and after some squabbling we succeeded in obtaining two large

* Continued from page 543.

† I append a list of local sanitary reports made to Government through the Poor-Law Commissioners* before the general inquiry by a Committee of the House of Commons in 1842:—

A report from Mr. Hodgson and a Committee of medical gentlemen of Birmingham on the sanitary condition of the labouring population of that town.—A report on the sanitary condition of the dwellings of the labouring classes, &c., in Manchester, from Dr. Baron Howard, Physician to the Ardwick and Ancoats Dispensary of that town.—Also one on the condition of the labouring population in Liverpool, from Dr. Duncan.—One on the condition of the labouring population in Derby, from Dr. Barker. One on the condition of the labouring population of Truro, from Dr. Barham.—One on the condition of the labouring population of Brighton, from Dr. Jenks.—One on the sanitary condition of the labouring population in the town of Wolverhampton, by Dr. Dehane.—One on the prevalence of fever in the parish of Breadsall, Derbyshire, by Dr. Kennedy and Mr. Senior.—One on the sanitary state of the town of Stafford, by Dr. Edward Knight.—One on an improved condition of the town of Lancaster, by Dr. de Virtrie.—One on the sanitary condition of the town of Leeds, by Mr. Robert Baker.

Twelve reports from medical men on the sanitary state of towns and districts in Scotland, were appended also to this report of the Poor-Law Commissioners, besides many others from clergymen, magistrates, and other parties of local influence in different parts of the country; but it is quite impossible in a paper of this kind to enumerate all.

Two very recent publications connected with hygiene I must here, however, notice, as they contain many useful practical suggestions, and the author of them has given his attention to such matters for some years. One is a pamphlet "On the Contamination of Water by the Poison of Lead, and its effects on the Human Body," by James Bower Harrison, Esq., Surgeon, Manchester; and a recent letter of his to the Earl of Shaftesbury, containing "Suggestions as to the Expediency of Submitting certain Branches of Trade and Manufactures to Government Medical Inspection." Dr. Calvert Holland also has written ably on the injurious effects of grinding steel.

* "The Report to the Secretary of State from the Poor-Law Commissioners on an Inquiry into the Sanitary Condition of the Labouring population of Great Britain." This report, indeed, laid the foundation for Legislative interference with regard to the public health, and has proved invaluable. It should have been published in a cheap and abridged form.