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éponymiques et des observations
princeps : Hammond (syndrome de)**

**HAMMOND, William Alexander. -
Athetosis**

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unpaid, each with a district comprising not more than four cases, bound to administer relief in accordance with certain fixed and very stringent rules, each responsible to the majority of his fellows, and all responsible to the higher administrative tribunal, the town administration or *Verwaltung*. It may be further observed that these relieving officers should be selected from amongst well-to-do citizens, shopkeepers, manufacturers, master mechanics, and men engaged in various professions, and that they should be selected upon the simple ground of their fitness for the office. It is to be feared that in England—or, at all events, in the metropolis—the pursuit of wealth or of pleasure effectually precludes the adoption of an unpaid administration of relief, and experience of selections for existing unpaid local offices leaves but little hope that in England any man would be chosen to a new post of the kind upon the simple ground of fitness.

How Medical relief is given at Elberfeld we must see on another opportunity.

(To be continued.)

ATHETOSIS.

The term "Athetosis" (from *Atheros*, without fixed position) has been devised by Dr. Hammond, of New York, as suitable to a rare class of cases in which the most characteristic symptoms are an inability to retain the fingers and toes in any position in which they may be placed, and their continual motion.

As far as he knows, only three cases have as yet been observed—namely, one by himself; one by Dr. Hubbard, of Ashtabula, Ohio, who sent Dr. Hammond an excellent report of it, accompanied by two photographs; and one by Professor F. Barker, of the Bellevue Hospital Medical School, of which no details have yet been published, and of which Dr. Hammond had not heard till after he had written his chapter on Athetosis in his "Diseases of the Nervous System."

The following is the history of the case which originally called Dr. Hammond's attention to the subject:—

J. P. R., aged 33, a native of Holland, consulted him September 13, 1869. His occupation was bookbinding, and he had the reputation, previous to his present illness, of being a first-class workman. He was of intemperate habits. In 1860 he had an epileptic paroxysm, and, since that time to the date of his first visit to Dr. Hammond, had had a fit about once in every six weeks. In 1865 he had an attack of delirium tremens, and for six weeks thereafter was unconscious, being more or less delirious during the whole period.

Soon after recovering his intelligence, he noticed a slight sensation of numbness in the whole of the right upper extremity, and in the toes of the same side. At the same time severe pain appeared in these parts, and complex involuntary movements ensued in the fingers and toes of the same side. At first the movements of the fingers were to some extent under the control of his will, especially when this was strongly exerted and assisted by his eyesight, and he could, by placing his hand behind him, restrain them to a still greater degree. He soon, however, found that his labour was very much impeded, and he had gradually been reduced, from time to time, to work requiring less care than the "finishing," at which he had been very expert. The right forearm, from the continual action of the muscles, was much larger than the other; and the muscles were hard and developed, like those of a gymnast. When told to close his hand, he held it out at arm's length, clasped the wrist with the other hand, and then, exerting all his power, succeeded, after at least half a minute, in flexing the fingers; but instantaneously they opened again, and resumed their movements.

Dr. Hammond treated him with galvanism, primary and induced, for four months without notable result. His fits were, however, arrested with bromide of potassium. His memory began to fail him soon after the attack of delirium tremens, and his intellect was obviously weakened before he first consulted Dr. Hammond.

On January 17, 1871, he entered the Hospital for the Diseases of the Nervous System; and Dr. Cross made the following report of his case:—

"The head is symmetrical, but is peculiar in shape, the posterior portion rising to a much higher point than the anterior,

while the latter slopes downward and forward, giving the cranium the form of that of a Flathead Indian. The special senses are normal. The intellect is somewhat impaired, and his ideas are not so vivid at one time as at another. His memory is much enfeebled. There is slight tremor of both upper extremities, but there is no paralysis of any part of his body. There are, however, involuntary grotesque muscular movements of the fingers and toes of the right side; and these are not those of simple flexion and extension, but of more complicated form. They occur not only when he is awake, but also when he is asleep, and are only restrained by certain positions, and by extraordinary efforts of the will. Thus, those of the fingers are arrested when the wrist is firmly grasped by a strong hand, or when it is less forcibly held in a vertical position. But if the arm be extended horizontally, the fingers at once begin their movements. During their continuance the arm is hard and rigid, and the calf of the leg is also in the same state of tonic spasm while the toes are in motion. The movements are somewhat paroxysmal, being worse at times than at others. During the remissions the power of the will over the muscles is more effective than when the paroxysms are at their height. Sensibility to touch, pain, tickling, and temperature is normal in all other parts of the body. There is slight tremulousness of the tongue, but no difficulty of articulation. There are no oscillatory movements of the eyeballs (nystagmus). The involuntary contractions of the fingers and toes do not take place quickly, but slowly, apparently as if with deliberation and with great force. The numbness and pain in the arm, hand, leg, and foot have increased in proportion to the increase in the contractions. The toes are not involved to the same degree as the fingers. Position does not, however, afford the same relief to them as to the fingers, and the spasms are more tonic in character. The muscular development is greater in the right arm and leg, from the almost continuous muscular action. The toes are kept restrained to some extent by the boot, but as soon as it is removed they become flexed, and take on their peculiar movements. When, by a strong effort of the will, he succeeds for an instant in arresting the movements in the hand, the little finger at once becomes strongly abducted, the third finger participates to some extent, the second finger is slightly flexed, the index-finger is extended, and the thumb is extended to its very utmost."

In these peculiar positions the patient is able to quiet the action of the muscles, and to allow his hand and forearm to be photographed; and the peculiar position of the fingers, both in this and in Dr. Hubbard's case, is admirably illustrated in copies of photographs given in Dr. Hammond's volume.

On account of the severe pain in the whole arm, caused by the spasms in the muscles, the patient is at times unable to go to sleep until quite exhausted. On awaking, however, after a few hours' repose, although the actions have continued during his sleep, they are not so severe as at any other time through the day or night. This state of comparative repose lasts for about half an hour.

"His habits," says Dr. Hammond, "are bad. He boasts that he has often drunk as many as sixty glasses of gin in a day, and it is therefore doubtful whether the tremulousness observed in the tongue and the muscles generally is the effect of the disease or of drink, or of both combined. I have never, however, seen him drunk, or even under the influence of liquor. His mental faculties are decidedly more obtuse than when he first came under my observation. Under the use of the primary galvanic current to his brain, spinal cord, and affected muscles, and the internal use of chloride of barium, he is certainly improving; but I have little hope of any permanent result being obtained. His epileptic paroxysms are kept down with bromide of potassium."

The history of the case recorded by Dr. Hubbard shows that in this instance the disease was more advanced, the distortion of the hand being obviously greater; but, on the whole, the two cases are so similar that we need not enter into any details regarding the latter.

"Both cases," says Dr. Hammond, "came on with epileptic paroxysms—a feature accompanying other organic diseases of the brain and spinal cord. In both there are similar head-symptoms, tremulousness of the tongue, numbness on the affected side, pains in the spasmodically-affected muscles, and especially complex movements of the fingers and toes, with a tendency to distortion. In neither case is there any paralysis. Relative to the character of the lesion producing these symptoms, and its exact seat, I am not yet prepared to speak with any degree of certainty. The phenomena indicate the implication of intra-cranial ganglia and the upper part of the spinal

cord. The analogies of the affection are with chorea and cerebro-spinal sclerosis; but it is clearly neither of these diseases. One probable seat of the morbid process is the corpus striatum.

Dr. Hammond has published these cases with the view of directing the attention of his Professional brethren to an affection that seems hitherto to have been overlooked or confounded with some other disease.

THE HISTOLOGY OF FATTY TISSUE.

FATTY TISSUE has been made the subject of an elaborate memoir by Flemming, in which its formation, its relation to connective tissue, and its retrogression into the latter are discussed. His observations were made on embryos and newly born animals (guinea-pigs and puppies), and also on animals artificially fattened, in order to make sure that the fatty tissue should be in the condition of increase; also on animals in a state of progressive emaciation. He is in agreement with most of the physiological and pathological observers on the point that fatty tissue is nothing but a modified connective tissue. Flemming finds that the development of fat is always dependent on vessels. The first deposit of fat takes place in the tunica adventitia of the bloodvessels, so that adipose tissue might in fact be called a loosely spread adventitious coat of the vessels. Moreover, the fat does not accumulate round newly formed outgrowths of vessels, but rather round those which are completely formed and comparatively thick. The production of fat takes place only in isolated foci, round certain vessels of the fatty lobule, while other quite similar vessels show nothing of the kind. The fat does not appear at first, as observed by Czajewicz, in the periphery of the lobules, nor is it contained, as has been asserted by other observers, in special smaller cells. A certain quantity is accumulated in the walls of the larger completed fat-cells, and a small number of fatty molecules are seen free, perhaps in consequence of the mode of preparation; but most is seen in what are believed to be fixed connective-tissue cells. Migratory cells are seen in great abundance, but are not different from the white corpuscles of the blood, and do not contain fat. The genuine young fat-cells have no membrane, and look at first sight like a heap of fatty molecules, varying in size; they are angular, or spindle-shaped, or polygonal, and only when they contain several larger drops of fat are they round. The smallest of them hardly exceed in size the normal fixed connective-tissue corpuscles.

In his observations on the wasting or absorption of fat, Flemming comes to the conclusion that the fat-cells become ultimately converted, not into a "serous fat-cell," as has been said, but simply into the ordinary flattened connective-tissue cell; in fact, that the process is precisely the converse of that seen in the production of fat.

His general results are, that fat-cells are formed out of the ordinary fixed elements of connective tissue, and can, by the loss of their fat, return to the condition of such connective-tissue cells again, and that there is no special preliminary tissue, and that the name of adipose or fatty tissue is accordingly superfluous. The "mucous tissue" of Virchow has no special relation to fat; it has merely the characters of all embryonic connective tissue.

The passage of fat into the fixed connective-tissue cells is not to be explained by its transmission through plasmatic channels communicating with connective-tissue corpuscles. The existence of these channels Flemming does not admit; but he proposes the hypothesis that fat circulates in, and passes out from, the vessels in a liquid form, and then, being absorbed by the connective-tissue cells, is precipitated in their substance.

The remarkable localisation of the production of fat, he thinks, depends upon the dilatation of the vessels at particular points, and he sees another evidence of this dilatation in the large number of migratory (extravasated) cells at these points.

CANCER *o.* CONDURANGO.—The curative powers of this root for cancer on both sides of the Atlantic begin to be viewed in the light of another huge mare's-nest. The German papers have received a communication from Prussia House to say that the reports of the English Practitioners applied to, by the German Embassy go to deny entirely the curative power of the condurango.

REVIEWS.

Neuralgia, and the Diseases that Resemble it. By FRANCIS E. ANSTIE, M.D. Lond., F.R.C.P., Senior Assistant-Physician to Westminster Hospital, Lecturer on Medicine in the Westminster Hospital School, etc. London and New York: Macmillan. Pp. 296.

A BOOK on the subject of neuralgia from the pen of Dr. Anstie is sure to be well worth reading, and we think we may also say of the present one that it is well worth careful study. The nature of the disease itself is at once so vague, and it is so excessively painful, that its study, though eagerly called for by the sufferer who desires relief, is far from easy, there being so few objective indications of the cause of the pain which is its prime feature.

Pain may, indeed, be said to be the essence of neuralgia; and, as in so many diseases it is a symptom of paramount importance, itself deserves careful study. To pain, indeed, Dr. Anstie first turns his attention; and he does well to draw a distinction between pain and hyperæsthesia. The two are certainly not identical, and, though they are often associated, they are also encountered apart—in point of fact, pain often coincides with diminution of sensibility, as is seen when pain of one kind or from one cause is used to neutralise that the product of another. In cases of defective nerve-supply, it is often our lot to encounter much pain at a spot so anæsthetic, that a hot iron may be applied to it for a moment without the individual perceiving it.

As to the etiology and pathology of neuralgia, Dr. Anstie holds that the disease is invariably connected with atrophic change in the sensory root of the nerve, which in some portion of its course is painful. Tendency to this change, or to some other form of neurosis, is, he thinks, hereditary; and, farther, that this inherited tendency may in the same individual manifest itself in various ways. This is clearly a matter of importance; and we see no more reason to disbelieve the transmission from parent to child of a tendency to certain neurotic diseases, than that mental and moral qualities are within certain limits hereditary. Next to hereditary tendency, Dr. Anstie considers had early training, whether physical or moral, a potent cause of neuralgia.

Of mere purely physical causes, cold comes in for a large share, in the production of neuralgias which are connected with peripheral irritation; but it would seem that to induce it to set up neuralgic pain there must be something more than mere cold in most cases. It must be persistently applied to one spot, as in a draught; or there must be some local defect to constitute a vantage-ground for the influence of cold. Injuries to nerve-substance, or prolonged pressure of tumours on nerve-tracts, are undoubted causes of neuralgia. Examples of the former are afforded by what frequently occurs after amputation or excision of joints; of the latter, by the so-called neuromata. Debility is a powerful agent in the production of neuralgia, but rather, perhaps, by securing a good soil for other influences than by trophic change. Conditions not of anæmia but of toxæmia, such as occur in gout and rheumatism, we should most certainly be inclined to relegate alcoholic neuralgia, which Dr. Anstie considers apart, and which he thinks is due to mere degeneration, induced by the action of alcohol. The condition of the circulating fluid has, we think, unmistakably some influence in the production of neuralgic pains, even though indirect. The remainder of this interesting chapter we have hardly time to discuss.

The complications of neuralgia constitute an exceedingly valuable chapter. The first here mentioned is vaso-motor paralysis. This we would be inclined to expect, from the known influence of irritation on a sensory nerve. Such changes cannot take place without affecting nutrition—the hair turns grey, the periosteum and skin become thickened, the epithelium of the mucous membranes, too, accumulates, whilst not unfrequently erysipelas shows itself. Affections of the eye, referable to a like cause, are far from uncommon. Secondary to neuralgia there is not unfrequently some muscular paralysis, as in the case of the bladder from pelvic irritation. So, too, convulsion may occur; whilst impairment of sensation, as we have seen, is frequently encountered. The profuse lachrymation connected with some forms of frontal neuralgia is also worthy of attention.

A word as to the diagnosis of neuralgia. The first thing to our mind, is, that there is so little to show for the severe pain, either locally or constitutionally; and that the pain intermits. Of course there are some regions, especially those to which the fifth nerve is distributed, which are so frequently the site of