prominent symptoms: Violent paroxysmal attacks of headache, sometimes accompanied by vomiting; pains in the joints; gradually increasing debility. Although not anaemic-looking menstruation had been scanty for many months, and had entirely ceased for the last six months. As the patient has now been under observation for upwards of six months, it will be seen that the amenorrhoea has lasted over a year. She used to wear boots of No. 4 size, and now requires No. 6.

Appearance and Physical Examination, July 14th, 1902.—The attention is at once arrested by the patient's generally enlarged and massive-looking head, more especially the elongated and broadened nose and thickened lips. The hands are much enlarged, the fingers being much broadened and flattened. The patient is only of medium height for a woman, yet the hands, and also the feet, are larger than those of a man of more than average height and strength. The skin of the face looks muddy and pigmented. Patient complains of thirst and excessive sweating. The thyroid gland is uniformly enlarged, the pulse average, 120; eyeballs somewhat prominent, but von Graefe's sign is absent. The teeth meet comfortably and easily, thus the marked prognathism or protrusion of the lower jaw, so often met with in this disease, is absent.

The head is thrown forward owing to a rounded cervico-dorsal curvature. The sternum is prominent and appears broadened, thickened, and more massive than normal. Over the surface of the trunk are numerous, soft, pigmented, and pedunculated little tumours about 0.5 cm. in diameter. These are mentioned by Sternberg and other authorities on this disease.

The fact of the case being still in a somewhat early stage may account for the absence of some of the features of the established disease. Thus there are no changes in the fundi oculi. There is no evidence, such as the presence of bi-temporal hemianopia, to suggest compression of the optic chiasma by an enlarged pituitary body. This, the classical symptom of compression of the chiasma, is by no means constant in even well-developed acromegaly, other pressure effects, for example, homonymous hemianopia, optic neuritis or atrophy, or oculo-motor palsies, being at least equally common. Another associated symptom is absent in this case, namely, glycosuria.

Enlargement of the thyroid gland is fairly commonly met

Fig. 2.

with in acromegaly. This symptom in the case under notice, together with the constantly quick pulse, prominent eyeballs, pigmentation and sweating, seems to suggest some relationship between this disease and Graves's disease. Such a combination has been described by Murray.¹ The functional relationships of the ductless glands to each other seem to be

as yet but little understood. Thus the pituitary body contains iodothyron, a substance also contained in the thyroid, and it has been found enlarged in myxoedema and cretinism. So also in acromegaly the thyroid is often enlarged, thus appearing to be an attempt at compensation; but the puzzling point about it is that this apparently benign effort of Nature, so far from alleviating the disease, only makes matters worse. The sexual glands also in acromegaly are often atrophied or functionless. The thymus is often, but not invariably, of large size.

Notwithstanding many anomalies and difficulties, Pierre Marie's hypothesis of the pathology of the disease—that it depends on loss of function of the pituitary body—still holds the field. The well-known cases in which this organ has been destroyed by tumour, yet without causing acromegaly, may be compared with cases in which the adrenals have been destroyed (especially by cancer) without producing Addison's disease. With the latter acromegaly also presents another singular resemblance—namely, in the comparative failure of treatment by extracts of the respective glands. So far as I am aware no cure either of pronounced Addison's disease or of acromegaly has been recorded. Thus the brilliant prospects of treatment by means of animal extracts, opened up by the signal success of thyroid treatment, have not as yet been realized.

The condition of the patient during the seven months I have known her has remained much the same, though the physiognomy of the disease appears to have become more marked, and the patient herself thinks her hands are getting larger. Her manner is generally bright and cheerful, not morose or peevish, as is said to be often the case. The drugs which have been given have been of an ordinary character, and directed to the relief of symptoms. Three varieties of the disease are described: (1) The benign, which may run a course of as long as 50 years; (2) the chronic, to which this case probably belongs; (3) the acute, lasting 3 to 4 years. In the latter class, sarcomatous tumours of the pituitary gland have been the cause of death.

REFERENCE.

¹ *Edin. Med. Journ.*, 1897.

THE MEANING OF THE TERM "NEURASTHENIA" AND THE ETIOLOGY OF THE DISEASE.

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PROFESSOR CLIFFORD ALBUTT, in his clear and interesting paper read before the Section of Psychological Medicine of the British Medical Association,¹ pointed out that a common and mischievous error in the use of names is the etymological; that the literal meaning of a clinical name is simple, whereas the name itself is best used to connote the complex groups of factors that make up a disease; and that, in particular, the term "neurasthenia" is wasted if applied to simple nervous debility. This is true; yet it is the fact that there is a condition not far removed from the etymological meaning of neurasthenia which stands in need of a name; for it undoubtedly exists, it is pathological, it is an important factor in the etiology of the disease neurasthenia, and, it may be added, it is one of the most potent factors of unhappiness among men. On the analogy of the terms hysteria major and hysteria minor, we may perhaps describe this lesser (but more important) condition as neurasthenia minor, giving the name neurasthenia major to the recognized disease.

Neurasthenia minor is hereditary (though the heredity is often, if not usually, transmuted), and is also congenital. It consists apparently of an inborn feebleness of nervous impulses, both centripetal and centrifugal. Young children who suffer from it are often bright and lively, but they tire easily, and suffer very frequently from infantile complaints. As they grow older, one notices that their sensory acuteness and power of observation are below the normal. All will remember how, among their childish playmates, some were quick at finding a lost ball, and others very slow. Sufferers from neurasthenia minor are always slow. Co-ordination, too, is not good; appropriate action does not follow promptly on sensation, as in the case of healthy children; so that these subjects are not good at games. How far the memory is affected, apart from that feebleness which results necessarily from feeble primary impressions, it is difficult to say. Perseverance, attention, and application are deficient, and dawdling becomes a habit. The will is weak; all children are suggestible, but these more than others. Among them

arise those cases of "pathological piety," of which Dr. Wendell Holmes wrote; this is due to their lack of energy, to the timidity that accompanies this lack of energy, and also to the fact that, being more suggestible than most children, they are more open to emotional appeals. Often, too, they are "pathologically intellectual;" they pore over books, and are supposed to be studious, and do in fact learn book lessons better than the vigorous boy who neglects work for games, though not proportionately to the time they devote to them. These "studious," and sometimes really bright, children rarely redeem the supposed promise of their youth. Their poring over books is really due to the fact that reading is the easiest of all intellectual operations save one, requiring neither application, observation, nor thought; but unfortunately there is a popular belief that it is a sign of an intellectual disposition, and this encourages the young neurasthenics to indulge in the pernicious habit. The very easiest of all intellectual operations—day-dreaming—they learn early too, though it does not come to its full development till after the expansion of the self-centred emotions at puberty. Puberty often brings masturbation—a vice caused by the action of the newly-aroused sexual feelings on a listless, day-dreaming mind. At a more advanced age their instinctive turning away from effort may lead to the habit of drinking. I do not mean that most neurasthenics drink; I do not think they do; but I believe that in some cases neurasthenia minor helps to promote the habit. It is easier to loaf in the bar of a restaurant than to plod on at hard work, or to exert the constant self-control and consideration for others that are necessary in society. In adult life the languor continues, and is usually increased in spring; in the morning the sufferer wakes slowly and wakes tired, the tiredness lessening as the day advances; the weakness of will continues, and there is a want of power to roll away worries and unpleasant thoughts from the mind. It is this last feature that renders neurasthenia minor so potent a factor of unhappiness. Vasomotor instability and defective metabolism are common. So also is constipation; in those cases in which atonic dyspepsia has preceded an attack of neurasthenia major, it has probably been a symptom of neurasthenia minor.

It will be observed that some of the symptoms ascribed above to neurasthenia minor in childhood are often attributed to postnasal adenoids. The two conditions are very often associated, but to explain the nature of their association will require more knowledge of the etiology of adenoids than we possess at present.

It is unnecessary to enumerate the now well known symptoms of neurasthenia major, but a few words may be said about its etiology. From the pathogenetic point of view there appear to be two classes of cases.

1. Cases arising from shock. Among these I include not only traumatic neurasthenia, but also cases arising in a previously healthy individual from any sudden and severe mental shock. I have not myself seen an example of this last, but cases are described.

2. Cases due to the exacerbation of neurasthenia minor by depressing (or toxic) influences. The chief of these influences appear to be: (1) Worry and anxiety, (2) a relaxing climate, (3) certain illnesses, (4) prolonged drug intoxications, (5) prolonged autointoxication, (6) prolonged malnutrition, (7) prolonged exhaustion.

Of these, the first is far the commonest, and it is an influence to which the subjects of neurasthenia minor are especially liable. The second I have not seen described, but circumstances have led me to see a number of cases of it. The rest I have not seen, and have taken on the authority of others. I have known autointoxication to exacerbate both neurasthenia minor and neurasthenia major, but cannot satisfy myself that I have seen it actually convert the former into the latter. The seventh must be rare; cases ascribed to overwork are usually due to worry.

Though it does not come under the heading of this paper, a few words may be allowed on the upbringing of children subject to neurasthenia minor. Such children should receive a careful physical education, having a view not only to their vigour, but also to their power of co-ordination, and to a prompt and correct sequence of sensation and action. Their sensory acuteness, observation, and memory of observed facts should all be trained. Reading should be carefully supervised and limited, and all dawdling and day-dreaming rigorously repressed. Both in childhood and in adult life relaxing climates should be avoided.

REFERENCE.

¹ BRITISH MEDICAL JOURNAL, October 18th, 1902, p. 1208.

THE KNOCK-OUT BLOW ON THE POINT OF
THE JAW.

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In boxing contests a number of rounds are fought of two minutes' duration, there being one minute's interval between each. If a man cannot come up after that interval he is the loser, and if he be knocked down during a round he is given ten counted seconds to recover and resume his feet, or, if unable to do so, he is declared defeated. When large purses are at stake and reputations to be made or lost, the competitors endeavour as speedily as possible to effect a *coup de grâce*; and the blow which most effectually does this is one on the point of the jaw, the physiology of which is of interest.

The point of the jaw is situated on either side of the symphysis of the lower maxillary bone and corresponds nearly with the mental fossa; if a line, as in the photograph, be

drawn from this point to the centre of the odontoid process of the axis bone, which is the centre for rotation of the head, and is in close proximity to that for flexion and extension also, it will be seen what a powerful lever there is to turn the head in any direction. The attachments and feebleness of the muscles for rotation prevent much resistance being offered. The blow must be delivered hard and sharp, a stinging blow, weight is not necessary. The arm is usually bent at the elbow which is fixed, and the direction of the force is more or less at right angles to the line I have described, and slightly upwards, the hand falls upon the point shown by the asterisk; hence the head is jerked round suddenly to the full degree of rotation and backwards. The more unusual blow producing much the same result is an upper cut under the chin, the force is now upwards and slightly backwards.

Now a man, though in perfect condition, going strong, neither tired nor blown, receiving a blow such as I describe, instantly collapses and falls to the ground. He may be winning easily to all appearances, and in a future contest defeat the same opponent without trouble in a few rounds, still he falls, is counted out, and must accept his ill luck as the fortune of war. The man may fall in several ways, he may be lifted clean off his feet and land upon his back, or if he be coming in at the moment of impact he will drop on his face or side.

The attitude assumed in recovery, which may be instantaneous or delayed some minutes, rarely hours (unless some other element be introduced), is most characteristic. The fallen man begins to squirm about, raises his head and rolls his eyes around in an attempt to locate himself, and he tries to get on his side and elbow; he then makes a sustained but often futile effort to rise on his hands and knees; if successful in this he regains his feet, staggers around as if groping in the dark or like a drunken man; he may even if not counted out reopen hostilities, only, however, in most instances, to render himself an easy prey to his adversary, who floors him again. The sensations of the victim are not easily described, though any one who has experienced only a slight blow on the point of the jaw does not readily forget the feeling of helplessness which comes over him, and is well described by Mr. Allanson-Winn¹ in the following words: