showed great psychomotor activity, was very playful, marked flight of ideas, was expansive, very emotional, very erotic. She slept very little, appetite was poor and she lost weight rapidly. Orientation and memory intact. No hallucinations elicited. In about 3 weeks improvement began and at the end of eight weeks she appeared practically recovered. On April 9, 1915, that is, 13 weeks after admission, she was allowed home on visit. On leaving, she appeared normal in every way. There was no evidence of psychotic symptoms, she had good insight, and physically there was absolutely nothing of a neurological nature that was abnormal.

This case, with the history of a previous depression and its clinical picture during the acute stage, and its recovery, is certainly in every respect typical of manic-depressive insanity, and only the positive result of the six tests causes us to put it in the group of general paresis. Only the further course will shed any light as to the correct significance of these findings, and even then we shall not be too sure that we had not been dealing with a manic-depressive psychosis, in a latent neurosyphilitic. We would strongly emphasize the point that at the present time this patient presents no mental or physical signs of cerebrospinal syphilis or general paresis, but the six tests are still positive. This case differs from the ordinary general paresis remission in that there is not a single physical sign of paresis present.

There are many transitional cases between the cases described above, showing no symptoms or signs of neurosyphilis except the laboratory tests, and the typical case of general paresis. Thus we have cases with slight character change and no physical signs except rare "seizures." On the other hand, in many cases the presence of abnormal neurological phenomena without definite mental signs is first noted. Certain remitted cases show only some slight pupillary or reflex abnormality. We believe we have here added the last link in the chain between the primary and quaternary symptoms.

SUMMARY.

1. There is a group of cases showing the laboratory signs characteristic of central nervous system syphilis: (a) positive Wassermann reaction in the serum, (b) positive Wassermann reaction in the spinal fluid, (c) pleocytosis, (d) excess of globulin, and (e) of albumin in the spinal fluid, (f) gold sol reaction of central nervous system syphilis, and which show no sign or symptom of neural syphilis.

2. We believe these cases represent a form of chronic cerebrospinal syphilis, probably paretic in type.

3. They have the greatest theoretical and practical significance in the consideration of the life history of neural syphilis, on the concepts of allergie, in regard to results of treatment, and finally as to the evaluation of the laboratory tests.

4. Here is offered the last link to form a complete chain between the symptoms of the primary stage of syphilis and its final termination of life as the result of the diseases cerebrospinal syphilis or general paresis.

(Series to be continued.)

Therapeutic and Preventive Medicine.

THE TREATMENT OF HEADACHE.

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As a general principle in the treatment of headaches, the greatest care must be taken in making a diagnosis, since a number of different diseases have headache as a symptom which only disappears when the disease in question has undergone its specific therapy. Such is the case in headaches secondary to cerebral tumors, brain abscesses, hydrocephalia, cerebral and cerebrospinal syphilis, progressive general paralysis, circulatory disorders due to heart and pulmonary affections, nephritis, infectious diseases, acute and chronic intoxications, constitutional and secondary anemias, diabetes, and to uric acid arthritis.

In cerebral arterio-sclerosis, the patient's mode of life should be carefully arranged so as to prevent an aggravation of the secondary headaches. Work should be limited or even stopped entirely. Tobacco and alcohol are to be forbidden and everything that can increase blood pressure, especially physical and intellectual effort, sexual excesses and excitement of any kind. Warm foot baths and poultices to the nape of the neck and to the sternum are indicated. Daily and regular stools are necessary, with the aid of a purgative if required. The meat diet should be limited and there should be sufficient sleep. Iodine may be administered in small doses continued for a long period. (Iodide of potassium, (10 to 15 grams, to a two-one hundred solution,) one tablespoonful morning and evening). Or tablets of sajodine at 0 gr. 5 or iodival at 0. gr. 3, may be prescribed three times daily. A combination of sodium bromide, gr. 20 and potassium iodide, gr. 10 in distilled water, is found effectual when taken three to four times daily for four to six weeks. If the pain is unusually severe, antipyrine, phenacetin or pyramidon may be used. Cold applications and ice-bags to the temples also give relief. For some patients, a stay at a high altitude or on the sea shore is to be recommended. For plethoric patients laxative cures at springs like Kissingen, Marienbad and Homburg are indicated. In cases of disseminated sclerosis of the brain and of the spinal marrow, the headaches disappear after three

or four weeks of mercurial treatment. In diseases of the eye when the patient has passed fifty, the headache symptom points to glaucoma and the physician should proceed accordingly. Sun-stroke headache is best treated by a rapid infusion of water by mouth, rectum or subcutaneously. The headaches of hysteria (clavus hystericus) may be dispelled by suggestion either when the patient is in the hypnotic or in the waking state. In gastro-intestinal disorders, particular care should be directed to constipation, as the headaches are frequently caused by violent efforts of the patient at the stools.

Cornu used bromide of potassium in his chronic migraine cases in epileptic and delirious patients. Windscheid has had most success with bromine, and when rheumatism is present, he also recommends active massage. Edinger's unqualified endorsement of massage as a treatment for chronic migraine is due to chronic myositis in the cranial insertion of the muscles of the neck, the splenius, sterno-cleido-mastoid, trapezius, etc.—and sometimes on a level with the insertion of the temporal muscle. The limited deposits of muscular inflammation were speedily improved by massage in 14 cases reported by Norstrom. Auerbach states that the prophylaxis for migraine is that for diseases of the brain in general—open air life, avoidance of emotion and mental over-exertion, well-regulated hygiene of daily life and absolute abstention from alcohol. Members of migraine families should interchange activity and rest and not take too great intervals between meals. A biscuit with a glass of milk or a roll would suffice. A too exclusive meat diet should not be permitted. A prolonged stay at the sea or in the mountains may be of benefit, but not less than four weeks.

As for the medical treatment of chronic migraine, the milder forms require none. For the severer forms, the bromides attack the disease itself and combat an increase in the attacks. Auerbach prefers the bromide of soda with a salt-free diet if the action is to be intensified. This bromide cure was recommended by Liveing and by Charcot, and should be repeated several times in the year. Moebius recommended 15-30 grs. of sodium salicylate, antipyrin, 5-15 grs., phenacetin, 10-15 grs., migrainin, 15 grs., pyramidon, 5-7½ grs., and aspirin, 15 grs., may also be tried in a cup of strong coffee with one or two biscuits. For the severest forms, only an injection of morphia (¼-⅓ gr.) is a certain remedy. Absolute rest in a darkened room and a cold wet compress or ice bag on the head should accompany the above mentioned anti-neuralgics.

In neurasthenic headache, the physician has to consider the fact that the most important factor of nervous debility is heredity, and he should warn every constitutionally neurasthenic person of the important danger for his descendants. Dietetic treatment should tend to combat the bad habits acquired in the mode of life, such

as tobacco, alcohol. If the provocative causes of neurasthenia are to be sought elsewhere, a pint of beer in the evening and ½ cigar may be allowed. Sexual excesses, especially onanism, must be strictly forbidden. With married people, the physician must inquire as to the frequency of marital relations, and whether they are abnormal, interrupted coitus, etc. The treatment for migraine as to intervals of food and rest also applies to neurasthenic headaches. Electrotherapy (galvanization of the head and the neck) is also effectual. Bromine should be used (2 to 3 grs. *pro die* for 3-4 weeks). In grave recalcitrant forms, the patient should be sent to a sanatorium for prolonged treatment, where an isolated room and meals are frequently required. Ziemssen's project of pavilions for the cure of neurasthenia should be carried out for the public hospitals, as some of the severest cases of neurasthenic headaches are amongst the poor.

Nodular or rheumatic headaches may be most effectually combated by manual massage, and the utmost precaution should be taken against chills and abstinence from alcohol strictly enjoined. The head should be raised when sleeping to avoid hyperaemia and women should not wash their hair during the attacks. Afterwards shampoos with spiritous liquids may be permitted. The massage sittings should occur daily for fifteen to twenty-five minutes, during which the chin should be supported by the masseur's hand on the table and the patient should comfortably recline on a chair with a not too high back. Every sitting should be preceded by application of hot poultices (linseed meal or thermophores) to resolve the affected spots on the scalp and in the muscles. If the infiltrations are large and hard, an ichthyol ointment (20%) may be employed. Experiments with radium emanations have recently been recommended for gout and muscular rheumatism.

Auerbach gives the following details as to the massage technic which may be carried out by the physician if the masseur is not especially efficient. One should begin with forcible stroking (effleurage) of both lateral aspects of the neck, from the mastoid process to the acromion, carried out with the flat of the hand. The middle of the occiput and the nape of the neck are then treated in the same way with the right hand (10 times). This action serves to empty all the centripetal lymph vessels. The hair may so far be left undisturbed. For later manipulations the necessary regions must be exposed by parting the hair or throwing it forward in case there should be heavy masses of hair, supporting it on the arm used for massage.

Next follows a thorough kneading (petrissage) of the muscles and of the skin: First, of the left lateral occipital and cervical region as far as the shoulder, then of the central and finally of the right regions. This should be performed with both hands, opposing the other vertically to the course of the muscles to be massaged. The mas-

seur must endeavor as far as possible to raise deeper muscles from their supports and to get them between his fingers. Each kneading should be carried out five times and be followed by vigorous stroking. This stroking should be directed along the whole circumference of the occiput from one mastoid process to the other, to the insertions of the muscles of the neck and of the back of the neck. The stroking should be performed either with the thumbs or the closely approximated tips of the other fingers in a centripetal direction (*i.e.* towards the neck) downwards into the muscular bellies (twice from left to right and twice the reverse way). The individual sub-cutaneous and intramuscular indurations should then be sought out and stroked separately. This movement of simultaneous friction and percussion is best carried out by means of the tips of the three or four fingers closely approximated in such a manner that the wrist remains stiff and the actual movement becomes one of rotation through a small circle from the shoulder. One must constantly keep in view the end aimed at, *viz.*, to disintegrate the nodules and the indurations. Each nodule should be manipulated not longer than half a minute, ending with *effleurage* directed according to the topographical position of the individual nodules.

Next, one should place both hands simultaneously on each side of the sagittal suture and carry out a movement of *effleurage*, using some force, pressing through the scalp and temporal muscles on to the skull and finishing close behind the auricles (6 to 8 times). The indurations situated in the area thus marked out are then sought out and the massage is applied as above described. If the temporal muscle itself is affected, it must be thoroughly treated by *effleurage* in the direction of its fibres, (toward the coronoid process of the lower jaw) and then by petrissage. After the manipulations there should follow a stroking of the occipitofrontalis in its entire breadth, from its tendinous insertion to the eyebrows, with the approximated finger-tips (6 or 8 times). Any possible nodules in this region are rubbed as above described.

Finally one should proceed to the *effleurage* of the skin and forehead and the side of the face, using the palms or surfaces of the fingers, those of the left hand on the right side of the forehead and those of the right hand on the left side, so that the tips of the fingers on each side meet, stroking downward to the bones of the face, pressing through the soft parts of the forehead, proceeding backward to the temples and cheeks and using firm pressure, more and more of the whole hand. When the angle of the jaw is reached, the head is so turned that the thumbs on each side press into the region in front of and internal to the sterno-mastoid where the great blood-vessels and the nerves are, and then carry out firm but not too deep *effleurage* over the great blood-vessels and the lymphatics in a centripetal direction. After the

massage the patient should rest for half an hour to one hour, lying down if it is possible.

In Prof. Edinger's prefatory remarks to Prof. Norstrom's book on chronic headaches he regrets that Norstrom, Henschen, Helleday and the other Swedish authorities on the massage treatment are not sufficiently known. But since the translation of Prof. Norstrom's book into English (New York, 1902) we have nothing to complain of on that score. It is to be regretted that the same author's "*Traité Théorique Et Pratique Du Massage*," Paris, 1891, and his "*Céphalalgia Et Massage*," Paris, 1890, have not yet been placed within the reach of the practitioners whose college French has become somewhat rusty.

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Medical Progress.

NINTH REPORT OF PROGRESS IN ORTHOPAEDIC SURGERY.*

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TUBERCULOSIS.

At the present time the discussion of the cause, exact site of origin and form of treatment in tubercular coxitis is as acute as ever.

Ridlon¹ in a recent summary of this subject discourages any routine method of treatment and emphasizes the importance of accurate diagnosis. It is his experience that the selection of appropriate methods of treatment must be determined by the individual characteristics of the case. He has never seen any good come from an open operation in tuberculosis of the hip, and he cannot too strongly condemn the tendency of some surgeons to try to eradicate the disease process. Surgical interference is contra-indicated.

Fraser in his recent book² and other writings³ has more definitely shown the importance of the bovine type of tubercle bacillus in joint disease. In a long series of cases, 62% were due to the bovine bacillus and a probable milk-borne infection. Of the 38% human cases, nearly three-fourths gave a family history of tuberculosis. Here is clearly shown the importance of the present activity in the study of social conditions in their relation to tuberculosis of the bone and an urgent argument for the isolation of pulmonary tuberculosis. He also maintains that the resistance of bone marrow in the healthy bone

* This report is based on a review of 488 articles selected from about six hundred titles having to do with orthopedic surgery appearing between August, 1914, and January, 1915. References are given to only such articles as have been selected for note and comment.