appendages, and deviations from the average due to disturbed metabolism. (b) The mental defects ranged from a slight dulness to the more marked aberration seen in the cretin. In the author's series the most frequent delinquency was observed in the speech function. About 60 per cent. did not talk and late talking was the rule. The next most frequent defect was noted in the power of voluntary muscular coördination. Delay in sitting up and late walking was very common. Teething was late, often beginning after the tenth month, and if early dentition occurred, caries was evident and extensive. The proportion of decayed and mal-occluded teeth was very large. There was usually marked deficiency in height and weight, and constipation was the rule. Vision and hearing were usually not impaired. Enuresis was present in twelve cases. Anterior fontanelle closure was delayed in all the cases. High, arched palate was common. Treatment was usually followed by marked improvement in the physical defects, whereas the mental condition did not improve so rapidly or to the same extent. Calomel was first given, 0.006 gm. for ten doses, followed by a saline. Then thyroid extract, 0.006 gm. thrice daily, was given for ten days, then glycerophosphates of lime and soda for one week, then thyroid extract, 0.0075 gm. thrice daily. The alternation was adhered to, and the dose of thyroid increased until 0.18 gm. daily was given as a maximum. The thyroid extract was immediately suspended on the appearance of nervous, gastric or cardiac symptoms of overdose, to be resumed later in smaller dose. The prognosis depends on the age at which treatment is instituted and on the regularity and length of treatment. The secret of success is early and long-continued treatment.

Goetsch, E. DIFFERENTIATION OF EARLY TUBERCULOSIS FROM HYPERTHYROIDISM BY EPINEPHRIN TEST. [Abst. J. A. M. A., 1919.]

For three years Goetsch has been practicing the subcutaneous injections of 7.5 minims of a 1:1,000 solution of epinephrin chlorid in patients who present marked symptoms of hyperthyroidism, but in whom no positive diagnosis can be made by ordinary methods of examination. If the patient, following the epinephrin injection, reacts with manifest symptoms of hyperthyroidism, Goetsch believes that a positive diagnosis of the condition is justified. At the Trudeau Sanatorium, Nicholson and Goetsch tested forty patients by this method. Of eighteen patients whose diagnosis was "clinical tuberculosis, questionable," ten reacted positively and eight negatively; of sixteen with a diagnosis of "clinical tuberculosis, inactive," nine reacted positively and seven negatively; and of six with active clinical tuberculosis, none reacted positively. The authors conclude that the test is a valuable aid in determining whether the disease from which patients are suffering is purely a tuberculosis complicated by hyperthyroidism, or a pure hyperthyroidism. Hyperthyroidism, whether or not associated with tuberculosis, will give

a positive reaction to epinephrin. Tuberculosis, uncomplicated by hyperthyroidism, does not react positively to epinephrin. They feel that in a considerable number of border-line cases presenting symptoms more or less characteristic of both conditions, they can now pick out those suffering with hyperthyroidism.

Johnson, W. HYPERTHYROIDISM AND EXHAUSTION IN SOLDIERS. [Brit. Med. Jl., Mch. 22, 1919.]

The author adds his weight of observation to this question and is of the opinion that many cases of irritable heart, D. A. H., and many fatigue-neurasthenic states, are of hyperthyroid origin. The most marked and constant of these symptoms include exophthalmos, subdued mental excitement, prominence of the eyes, lagophthalmos, constant fine muscular tremor, rapid pulse, sweating, and various subjective symptoms such as throbbing headache, nervousness, disturbed sleep, fatigue, and some digestive disturbances. Actual definite enlargement of the thyroid gland was uncommon. All of these symptoms diminished greatly, or totally disappeared, after several weeks of rest in bed, full diet, tonics, and the occasional use of a sedative. Among the more characteristic physical signs, aside from those referable to the eye, were variable but generally rapid pulse, elevated blood pressure, while the adrenalin test and deep pressure on the eyeball did not yield concordant results. The mechanism of the condition is suggested as being due to the accumulation in the body of toxic substances due to the prolonged hyperactivity of the thyroid, which in turn results from prolonged strain of life in the trenches. The various emotional responses associated with fear and rage are there continually provoked, while the opportunity of giving vent to the feelings is infrequent. This leads to continued hyperactivity of the several organs of internal secretion and the victim is deprived of the normal method of reaction so that the effects become perverted.

Masson, G. TREATMENT OF EXOPHTHALMIC GOITER. [These de Geneve, 1918.]

The author maintains that the disturbance of the thyroid secretion (dysthyroidia) is the chief cause of the production of the symptoms. This dysthyroid hypothesis is supported by the clinical data, as well as by the experimental, pathological, and therapeutic facts. The treatment with sera obtained from thyroidectomized animals is that which gives the best results, and this treatment is at the same time logical, but it must be continued for a long period of time. It gives rapid results, but if interrupted the symptoms quickly return. It does not, however, appear to bring about a complete and permanent cure, although so long as it is continued, it assures a functional cure which is often perfect. The lacteal treatment by milk from a thyroidectomized goat gives far better