was only interrupted to satisfy the needs of vegetative life. When questioned she answered with sufficient precision, but the question had to be energetically repeated, otherwise the patient, after answering in a monosyllable, would relapse into sleep. Ideation was poor, perception slow, and memory somewhat uncertain and confused. Judgment was weak, and the patient did not respond to the news of her parents or show emotion in their presence. She complained of headache, heavy sensation in the skin of the head, vertigo, and ringing in the ears. Intractable vomiting occurred at times, and, despite every stimulus, she sank into a deep sleep from which she could not be awakened. Immediately before death symptoms of gastro-enteritis appeared.

At the autopsy, a tumour involving the whole of the hypophysis was found. This tumour was of greyish colour, slightly harder than the brain-substance and somewhat flattened at the base. It measured 6 cm. transversely and 4 cm. longitudinally. It tapered above, and was inserted immediately in front of the cerebral peduncles.

A histological examination presented a characteristic type of adenomatous tissue reproducing the structure of the epithelial lobe of the hypophysis, from which it took its origin. Sections of the whole tumour, in series, were made. It was not possible to observe any traces of the tuber cinereum, the mammillary tubercles, or the nervous lobe of the hypophysis. In the optic thalamus and in the cerebral convolutions, in immediate contact with the tumour, no neoplastic infiltration was found. The cells in these regions presented the same appearances as those of the frontal and occipital convolutions. Although the nucleus was central in many elements, it was swollen and uniformly coloured. The chromatic bodies were scarcely differentiated, broken, and rare; the yellow pigment was very abundant; the cellular processes coloured well, and were visible for long distances. In certain parts they were surrounded by abundant neuroglial nuclei. HAMILTON C. MARR.

A Suggested Serum-diagnosis of Syphilis by means of a Chromatic Reaction [*A proposito delle siero-diagnosi delle sifilide per mezzo di una reazione cromatica*]. (*Riv. di Patol. Nerv. e Ment., vol. xiv, Fasc.* 7.) *Turchi, G.*

The method of deviation of the complement applied in the serum-diagnosis of syphilis, of tabes, and of progressive paralysis by means of the examination of the cerebro-spinal fluid has assumed an undoubted diagnostic value. The reaction of Wassermann, however, presents some notable technical difficulties, and can only be carried out in a fully equipped laboratory. Various modifications have been suggested, tending to render the researches more accessible, but fortunately, studies directed to control the practical value of these modifications have demonstrated that they are almost all unacceptable. The methods of Porges and Meier, which were founded on the precipitation of lecithin and of glycocholate of soda, have been demonstrated non-specific and inconstant in researches carried out in the cliniques of Tanzi and Belmondo. Foreign and Italian literature ascribe the same defects to the methods of Klausner. At the same time, every new attempt to simplify the sero-diagnosis of syphilis is quite justified. The latest

methods suggested are those of Campana and Schürmann. The present paper is concerned with Schürmann's method. The theory that underlies this method is based on a chromatic reaction. Starting with the idea that in the reaction of Wassermann lactic acid plays a considerable part, Schürmann has made some researches on this acid in the serum by means of the known reaction of Uffelmann, but without any appreciable result. Türchi is of opinion that the colouring substances of the blood, contained in varying quantity in the different sera, masked in part the results of the chromatic reaction. To obviate this inconvenience he resorted to successive oxidation and reduction of the liquids to be examined, and after some preliminary researches propounded the following method:

"0·1 cm. of serum is placed in a glass tube. It is diluted in 3 cm. or 4 cm. of physiological solution (0·75 *per cent.* $NaCl_2$). To this solution a drop of perhydrol Merck (aqueous) is added, and the tube is shaken. This first part of the method, according to the author, gives some criterion in deciding if the serum examined belongs to a syphilitic individual. If the case is a positive one, there is an abundant precipitate. 0·5 cm. of the following reagent, freshly prepared and preserved in deep, well-closed bottles, is added: Phenol, 0·5 gr.; sesquichloride of iron (purest) 5 *per cent.*, 0·62 gr.; aqua destillata, 34·5 gr. The reagent, when prepared, should have a beautiful lilac colour. The serum of normal blood, with the addition of the reagent, shows on the surface a light green coloration, which on shaking either disappears completely or leaves a light green tint. The mixture always keeps transparent. The blood in syphilis, on the other hand, behaves in quite a different way. The addition of the reagent causes a greyish black, opaque colour; the mixture is turbid and remains so after shaking. The reaction occurs in from one to two minutes. To the changes in colour which appear after this limit of time no definite significance should be attached. It is immaterial whether active or negative serum is used."

Schürmann examined by his method eighty-four sera. In all of these he has obtained results in accordance with the reactions of Wassermann. Negative results were obtained in two cases of sera of scarlatina—sera that some authors hold to have the power of giving, although very slightly and transiently, the reaction of Wassermann. Negative results were obtained in examining the sera of normal animals (rabbits, guinea-pigs, and sheep).

Turchi has made trial experiments on Schürmann's method. He points out that Biach instituted researches on eighty cases, and is of opinion that the method has no practical value. In Turchi's observations, which are tabulated in four tables, the Schürmann and Wassermann methods were used simultaneously. It was found that the chromatic phenomena may happen in the way demonstrated by Schürmann, but Turchi's conclusion is that Schürmann's method, as a means of serodiagnosis in syphilis, is not acceptable in practice. It does not give either constant or specific results, and, as now employed by the author, cannot be accepted as a substitute for Wassermann's reaction.

HAMILTON C. MARR.