

servations seem to show the exactitude of this view, and to point out that if even cephalalgia is not observed in all cases, it corresponds often when it does exist with the seat of the lesion. When there is no spontaneous pain, it is possible some times to reveal, by percussion of the head, a pain limited more or less intensely. Percussion ought to be practised directly with the finger (middle by preference), by striking light and rapid taps over different points of the cranium. When a localized lesion exists at the surface of the brain, this methodical exploration provokes frequently an intense pain at a limited point, which corresponds with the seat of the cortical lesion. Dr. Robertson, in the *Journal of Mental Science*, July, 1878, p. 274, reports some cases in which this method had been to him of great assistance in establishing diagnosis.

Cranial thermometry may also in certain cases render real service. Studied in recent times by Broca, E. Maragliano, Gray (*Journal of Nervous and Mental Diseases*, July, 1878), and still more recently by Paul Bert (*Biological Society Meeting* of 18th January, 1879), it has already given some precise results from which the clinical observer may derive profit. In order that thermal variations may have value, it is necessary that there should be between two symmetrical points of the cranium a very notable difference (one degree centigrade at least) for differences of some tenth of a degree only may be observed in physiological conditions. The diseased side will, besides, be sometimes colder, sometimes hotter, than the healthy side, according to the nature of the lesions of which it is the seat. It will be colder, for example, if we have to do with arterial obliteration, and hotter when an inflammatory lesion is concerned.

Such are the principal signs of cortical lesions of the motor zone. It is necessary to add that, besides these direct signs, the physician may often utilize in a diagnostic point of view, considerations drawn from the march of the disease, from the summing up, which we think it right to translate textually. If there exists, he says, convulsions, limited or making an appearance at first before becoming general, in a group of isolated muscles, not accompanied or accompanied only tardily with a loss of consciousness; if consecutive to these convulsions or alternating with them, there are

circumscribed palsies or hemiplegia, the gradual apposition of which may be considered as the reunion of several monoplegias; if this palsy is accompanied with precocious contraction or with aphasia: if there is in the palsied limbs only a slight and transitory elevation of temperature; if, finally, we discover an obtuse pain spontaneous or provoked by percussion, occupying a circumscribed part of the head, the diagnosis of a cortical lesion nature of certain lesions, or of certain concomitant functional troubles. Aphasia, for example, coincides much more often with cortical lesions than with central lesions: its existence alone presupposes a cortical lesion. Softening concerns more often the cortical than the central portions; if for reasons not necessary to enumerate here, there is reason to think that the patient under observation is affected with softening, the conclusion would be probability of cortical lesion. In utilizing all these elements, we may often arrive at determining in a precise and certain manner a diagnosis of cortical lesion. Unfortunately it is not always thus, and in a good number of cases diagnosis is uncertain and even impossible. M. Maragliano indicates the principal clinical eventualities in the following cannot be in doubt. A reunion of all these symptoms is not even necessary to assure the diagnosis. The simultaneous existence of partial convulsions and of a palsy in the form of monoplegia or hemiplegia, permits the diagnosing with a sufficient certainty a cortical lesion of the motor zone. The aspect of things differs when convulsive phenomena are absent, even when all other symptoms are existing. Diagnosis loses all character of certainty in this case; it becomes simply probable. It is impossible also to diagnose a cortical lesion in cases where lesion of that structure is so extended as to destroy from the commencement the whole of the motor zone, as that happens as a following to the obliterations of the cortical branches of the fissure of Sylvius. Hemiplegia, then, differs in no particular from the ordinary variety of central origin. Finally, diagnosis will be impossible when we find ourselves in the presence of a total hemiplegia, on the mode of evolution of which no particulars can be gathered. We add no commentary to these conclusions, which appear to us to be the actual statement of our knowledge,—the most probable expression of the truth.