

adoption of Trousseau's statement, that if we look at the convulsive character alone of the two affections, "symptomatic or idiopathic epilepsy is only recurring eclampsia, and eclampsia is merely accidental or transitory epilepsy," yet if we look beyond this and study the matter with clinical care, we shall find the following symptoms of the eclamptic fit will aid the differential diagnosis between such an attack and epileptic seizure.

1. There is absence of foaming at the mouth.
2. The recurrence of the attack is irregular and frequent.

3. The eclamptic state rarely passes off so soon as an epileptic one, and never terminates by a critical sleep, as in epilepsy."

4. Some add its uniform connection with evident signs of fulness of blood, or acute disease in the brain.

The following differences in the symptoms of active and passive cerebral hyperemia and those of cerebral anemia will be best briefly contrasted if placed side by side:

Active Cerebral Hy.*	Passive Cerebral Hy.	Cerebral Anemia.
Fontanelle	Tense	Tense Depressed.
Scalp and Face	Hot and flushed.	Tumid dark Pale, shrunken Livid.
Irides	Contracted	Dilated Dilated.
Pulse	Quick, full, hard.	Slow, irregu- Almost imper- lar, oppressed ceptible even in the carotids.
Bowels	Constipated	Constipated Relaxed.

There is a clinical symptom which I have often observed, and which is, I believe, pathognomic of convulsions due to cerebral causes, viz:—either an irregularity between the pupils in size, one being dilated, the other contracted; or frequent oscillations of the iris, which are not influenced by alterations in the intensity of light.

In discussing now the predisposing and exciting causes of infantile convulsions it should be mentioned at the outset that the etiology is obscure, the mode of ingress and prognostic import of them are various, and the periodicity is uncertain.

Hereditary Disposition. Dr. Duclos of Tours has recorded a remarkable instance. A woman, aged thirty-four, was one of eleven children, six of whom died of convulsions, and she herself had eclamptic fits up to seven years of age. This woman had ten children; of these all had convulsions; six died, five in the first two years and one aged three years. The youngest of all was seen when six months old. At the age of three months she had her first fit, which lasted ten minutes: the mother believed the fit was caused by her suckling the infant when she herself was in a passion, as the convulsions ensued the next day. Death took place three months afterwards from cerebro-meningitis.

Among predisposing and exciting causes may be mentioned eclampsia in the mother during labor, insufficient feeding, large losses of blood, profuse diarrhoea, mental emotion, extremes of temperature.

Local Irritants as Exciting Causes.—From Trousseau I requote the following as most instructive and interesting cases:

Dr. Blache treated a case of recurring convulsions

* Hyperemia.

in an infant after all remedies, including a warm bath, had failed; but on removing the infant's cap a piece of thread was found attached to a needle, which latter had penetrated the brain. Upon withdrawal of the needle the convulsions ceased immediately, but hydrocephalus set in shortly afterwards and proved fatal. Professor Soubeiran's son died of convulsions, for which no cause could be ascertained during life, but at the post-mortem examination a needle was found transfixing the liver.

Underwood in his "Diseases of Children," records a case of convulsions in an infant which proved fatal, and after death a pin was found penetrating the anterior fontanelle.

Dr. Sayre, of Philadelphia, has written a pamphlet on the effects of congenital phimosis and adherent prepuce in producing partial paralysis and reflex irritation in children. I now look for this possible source of irritation in cases of infantile convulsion, and I have not unfrequently found it to co-exist.

Trousseau calls attention to the danger of severely sinapising and blistering infants, and thus practically impresses the caution: "How often have I seen medical men use fresh blisters against evils which they had themselves caused, forgetting the nervous symptoms which so frequently accompany burn of the first degree."

Symphathetic Forms of Infantile Convulsions may be induced by constitutional diseases, which, when latent, may act as predisposing cause of the convulsions, or if such diseases are in active progress they may prove an exciting cause of the same.

The rickety diathesis illustrates this form. Dr. S. Gee, in the third volume of St. Bartholomew's Hospital Reports, contributes a paper on "Convulsions in Children." Out of sixty-one eclamptic infants and children, fifty-six were found by him to be rickety. Though the convulsions and rickets may be but "secondary results of that state of general malnutrition of which the rickets is the most obvious and indisputable evidence," their concurrence and association together at the same time in the same infant is most significant and important.

There is a clinical observation closely connected with this subject of diathesis. Infants predisposed by diathesis, such as the rickety, may have convulsive attacks with distinct intermissions, and the return of the convulsions may be induced by the access of some acute or subacute inflammation, as bronchitis or pneumonia; nay more, the convulsions may be kept up by the inflammatory attack. In such a case attention has to be paid especially to the acute or subacute malady.

Andral has pointed out that there are peculiar idiosyncrasies which render the milk of a nurse well digested by some children, not by others. He relates that "a woman nursed her own child without any ill effect, but another child to whom she gave the breast was seized with convulsions, and a third likewise."

Sudden Ingress of infantile convulsions is regarded by Niemeyer as the only form of the disease which corresponds to "chill" in older persons as