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## Original Communications.

### ECLAMPسيا, OR INFANTILE CONVULSIONS.

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The spasms peculiar to infants are tetanus infantum, internal convulsions, chorea, and eclampsia or acute epilepsy. There is a difference of opinion as to the best name for infantile convulsions. Nothnagel uses eclampsia, restricting it to such cases as are similar to the true epileptic attack; some authors prefer the term epileptiform convulsions, others acute epilepsy. Smith, of New York, regards eclampsia "as being synonymous with clonic convulsions, sometimes general and sometimes partial, which affect the external muscles."

In the following paper, for convenience sake, I will use the term "Eclampsia," and in the latter sense. It is impossible for the physician to have an intelligent apprehension of the nature or treatment of a single case of any kind of convulsions, without first possessing a somewhat general knowledge of spasm and its nature, to understand the particular, without an acquaintance with the general.

I purpose to begin with a general consideration of the subject of spasms. Finding no authority pronounce definitely on spasm and its nature, but many who advance theories and conjectures which, however untenable future investigation may prove some of them to have been, are landmarks and beacons for the guidance of other enquirers. Now if you will bear with me, I am going to indulge in a little theorizing; not that I have discovered any new facts, but because a few generalities will enable me the better to introduce the conclusions to which a consideration of the subject has led me. I believe that all abnormal reflexes—as trembling,

shivering, formication, chill, rigor, subsultus, chorea, eclampsia, epilepsy, etc., are the same in kind and differing from each other only in degree, the character of each depending upon the existing cause and the condition of the nervous system. We know that ordinary excitements affect persons very differently, one trembling and shivering from a trivial cause, while another resists and ignores much severer exposures. Two individuals, well, and apparently equally vigorous, become suddenly violently alarmed; one is affected with a temporary fluttering at the heart, while the other has an epileptic fit and is ever after an epileptic.\* Taking epilepsy as the type of spasm, for there seems to be more written on it than on any other nervous disorder, we find high authorities declaring it to be a definite disease, having its point of departure, the "convulsion centre," situated in the pons and medulla oblongata. Nothnagel writes, "that the circumscribed spot from which the whole body of the voluntary muscles may be thrown into tonic and clonic spasms through reflex excitation is to be sought for in the pons." Nevertheless he agrees with Hughlings Jackson, writing in 1879, "we have not yet discovered the cause of epilepsy in any sense of the word cause." He also says, "when we turn to the principal question, In what does the essence of epilepsy consist? what are the morphological changes underlying it? "The answer to this must, unfortunately, even at the present day, prove very inadequate." He further adds, "Schroeder, Van Der Kolk, Brown-Sequard and Reynolds have already expressed themselves to the effect that we have to deal with an 'increased irritability' of the reflex nervous centres situated in these sections, an opinion in which we thoroughly agree; but we are certainly in the dark as to the influences which induce this exaggerated excitability." It is also urged, nay, demonstrated, that cerebral anæmia stands in a definite relation to epilepsy. The following are among the proofs: that depressing influences predispose to convulsions; that animals bled to death die of convulsions. In rabbits, ligature or compression of the arteries of the neck produces convulsions. Electricity applied to the cervical ganglia of the sympathetic produces convulsions by contracting the arterioles and inducing anæmia of the brain. So

\* Read before the County of Oxford Medical Association, at Woodstock, January 8, 1880.

\* This has been corroborated by actual fact in the case of the Queen of Spain, since this paper was written.