premonitory of one of the exanthemata or of some inflammatory disorder. Recently I saw a female infant three months who was attacked a week after vaccination with severe convulsions, which ushered in an attack of congestion of the lungs. Curiously enough, the vesicles did not rise till the tenth day, but then very fully. As an illustration of the prognostic value of "sudden ingress" at an older age, in the autumn of 1870 I saw a little girl, aged three years, a patient of my friend Dr. George Dale, of Bayswater. The illness was ushered in by sudden convulsions of severe eclamptic form, sensorial disturbance, rapid pulse; these symptoms led us to prognosticate one of the exanthemata, probably scarlatina, which appeared the next day. The child recovered-

Single fatal convulsions have a forensic import and interest. When such a convulsion attacks an infant at the breast, death often ensues while the infant is in bed beside the mother, who, having perchance fed the babe a few hours previously, unexpectedly finds that it has died. Such infants are considered to have been overlaid. In the *British Medical Journal* of March 12th, 1870, I published two cases to prove that in neither case was the infant overlaid, but that organic disease caused death in them; and to advocate the necessity of necropsies in all cases of sudden death in infants.

A paroxysm consisting of a single fit is rare: recurrence is much more frequent, either in an intermittent or continuous form, or assuming a "partial" variety of convulsion.

A rare form of "*spastic or tonic contraction*" occasionally occurs, chiefly affecting the extremities, more nearly allied to spasm than convulsion, into which however it may merge. Dr. Copland associates this form with intestinal irritation, dentition, or worms, in young nervous or irritable children. The spastic muscular action continues for several hours or days, then ceases to return, or recurs at short intervals. The intellectual faculties, the general sensibility, and the muscles of the trunk are not affected, the pulse and the natural functions are not materially disturbed.

Dr. George Dale mentioned to me a case in which he found spastic action of the muscles of the arm and forearm during dentition. Moderate lancing of the gums gave no relief, but upon making a deeper incision, the "spastic" action ceased gradually, but permanently.

(*b*) *Pathology:*—

Hitherto pathology has not thrown much light upon the proximate causation of infantile convulsions and eclampsia infantum.

Morgagni wrote: "The cause of convulsions, which consist in an invisible change that has occurred in the brain and nerves, cannot be detected by our senses after death; its effects alone are seen, and these vary according to the violence and duration of the convulsions." Subsequently, the teachings of Trousseau confirm the insufficiency of our knowledge respecting the "organic pathological condition in consequence of which convulsions arise." The researches of Dr. Hughlings Jackson and Dr. Ferrier are tending to elucidate the obscurity at present surrounding the subject.

In several necropsies made by myself on the bodies of infants who died of convulsions, frequent evidence of inflammation of the cerebral meninges, as well as of the brain substance, giving rise to diversity in its color and consistence have been noted. One portion of the intra-cranial contents was universally affected, which may throw some light upon the proximate causation of infantile convulsions—a pathological alteration in the condition of one or both plexus choroides. The alteration assume one of two forms—either a general hyperemia active or passive, or a localized congestion chiefly affecting the posterior end; and in some cases a general edematous infiltration of the greater part of the plexus. It would be too much in our present state of knowledge to apply to this occurrence the doctrine of "post hog ergo propter hoc:" yet that a relation may be found between such conditions of the plexus choroides, and other alterations in the nerve centres, of which they are in the vicinity, and the convulsions which co-exist, is not unreasonable to suppose. In this communication I rather draw attention to the condition than seek to illustrate its associations.

(*c*) *Treatment:*

Active Cerebral Hyperemia inducing congestion of the brain, requires that during the fit all circular constrictions around the neck and chest must be removed. This applies equally to all forms of convulsion. The body may be immersed in a warm bath, to which some mustard, previously made into a paste with water, may be added, meanwhile a gentle douche of cold water should be poured over the head and face. When violent carpo-pedal contractions co-exist, a sinapism should be applied along the spine, and sinapisms to the soles of the feet, as rubefacients.

Ice-bags and bladders should never be ordered unless under medical supervision. Cathartics should be used freely. If the fits recur frequently, or laryngeal spasm supervenes, chloroform inhalation is indicated. Niemeyer advocates, in robust children, an enema of one part vinegar and three parts water, and if cold compresses applied to the head do not relieve, leeches should be applied behind the ears or to the temple. Dr. West recommends that the leeches be applied to the vertex in sufficient numbers to produce the effect of the loss of a certain amount of blood at once, and in any case upon removal of the leeches the bleeding must be immediately stanched, and not left to continue *ad libitum* into cloths or poultices.

Passive Cerebral Hyperemia requires, if associated with marked lividity of the face and distension of the jugular veins, the abstraction of a moderate quantity of blood; carefully watched and guided by the effects produced. Cathartics are indispensable. Stimulant mustard baths should be used, and cold water sprinkled over the face and chest to excite respiratory action quietly. Slapping the nates would probably increase the screaming, and so do more harm than good. In extreme cases, insuf-