

to the fact that straightness of the spine in the cervical and lumbar region was as characteristic of vertebral caries as was the angular projection which so quickly appears in the case of caries of the dorsal vertebrae.

After all, stiffness was the most important sign of early spinal disease. Two boys of about the same age were placed side by side upon the floor; one of them had dorsi lumbar disease whilst the other had a sound spine. The latter could put his head between his knees, his back assuming a beautiful, convex sweep. The other boy could not bend down at all. Two children were then brought in whose projecting spinous processes offered strong suggestion of vertebral caries. Their back-bones could, however, be freely bent and turned in every direction, and were manifestly destitute of inflammatory trouble. Their mothers said, moreover, that they had not complained of pains, and that they could run about and play with other children without showing unusual fatigue.

As regarded the treatment of the early stages of spinal disease, Mr. Owen summed up his advice in one word, REST—absolute and continuous rest. The child should be placed on a narrow horse-hair mattress with the head securely steadied between very large sand bags, only a small, flat cushion or pillow being allowed beneath the nape of the neck. When the pains had become a matter of almost "ancient history"; when it was certain that no abscess was forming, and when, with the lapse of many months, it might be considered that all tubercular inflammation—and these cases are always tubercular—had passed away, some kind of rigid support might be employed. To substitute a plaster of Paris or a poro-plastic splint, however, for absolute rest in the horizontal posture, was one of the commonest errors of the present time in connection with the treatment of early spinal disease.—Edwin Owen, F.R.C.S. in *Med. Press*.

### CHLOROFORM OR ETHER?

The *British Medical Journal* has performed a signal service to the Hyderabad Commission in placing before the profession Dr. Julliard's views on chloroform and ether. The leading article in the *Journal* of April 25th, 1891, is incomplete, however, and ought to have included the London statistics so opportunely brought forward by Mr. Roger Williams in the *Lancet* of February 8th, 1890.

According to Dr. Julliard's statistics, deaths from chloroform amount to 1 in 3,258, and from ether to 1 in 14,987 administrations. According to Mr. Roger Williams, the statistics of the London hospitals show that deaths from chloroform amount to 1 in 1,236, and from ether to 1 in 2,754 administrations. On the other hand, the statistics of chloroform administered on Syme's

principles form an unbroken record of inhalations from 1848 to 1891 without a death. The *British Medical Journal* regards Dr. Julliard's figures as "a most valuable statistical summary," but this summary would obviously be much more useful if it were accompanied by a description of the method of administration pursued in all the cases from which it is compiled. There are two distinct methods of chloroform administration in vogue. In one the pulse, as well as the respiration, is taken as a guide; in the other the pulse is never under any circumstances taken as a guide; and it is manifestly unreasonable to compare the risks of ether and chloroform without stating with regard to chloroform which of these methods is employed. The importance of this point lies in the fact that there is not one case of death from chloroform recorded, in which it was proved that the pulse has never been taken as a guide, no death from chloroform has ever occurred. It should be stated that in Syme's practice, as in my own, the anæsthetic was always administered by students and not by specialists. *If the pulse is affected under chloroform it indicates chloroform poisoning either direct or through abnormal respiration. All the chloroformist has to produce is harmless anæsthesia with regular breathing, and without poisoning, and of this the pulse can never be any test whatever; it is, therefore, positively dangerous and useless to take it as a guide.* The following table places the available figures in a most striking light:

#### Mortality Statistics of Chloroform and Ether.

Anæsthetic Employed	Source of Statistics.	Period.	Number of Deaths to Administration.
Chloroform	Julliard . . . . .	Not stated	1 to 3,258
Ether	Julliard . . . . .	"	" 14,987
Chloroform	St. Bartholomew's Hospital (Roger Williams)	10 years, 1878 to 1887	" 1,236
Ether	"	"	" 2,754
Chloroform	Syme and Lawrie . .	43 years	No death.

If statistics are of any value, this table ought to carry conviction with it, because it shows clearly that chloroform administered on Syme's principles is even less dangerous than ether administered in accordance with the most approved methods. But the Hyderabad Commission has no desire to institute further comparisons between them. All we say is, let anybody use ether who chooses, but if chloroform is to be employed, let it be given in the right way. Surgery cannot yet do without chloroform, and the only way to give it with invariable safety is to be guided, as Syme was, not by the circulation, but entirely by the respiration. What Dr. Julliard says about ether I can say, *mutatis mutandis*, about chloroform. During fourteen out of the seventeen months that have elapsed since the Hyderabad Commission demonstrated that the key to the safe administration of