

did it rise high enough to cause anxiety, and that was on the 5th February, when it reached $101\frac{1}{2}$; and it is worthy of note that at this period he had been taking eserine for four days. From this time onward the temperature gave no concern, as it ranged between $98\frac{3}{4}$ and 100 , once getting up to $100\frac{3}{4}$, and once down to 98° .

The pulse kept up more persistently than the temperature, varying from 100 to 120 per minute, and not coming down to 90, or below, until after we had so freely used the aconite. The pulse was variable in volume, sometimes being full and bounding, sometimes small, feeble, and easily compressible. His skin was, most of the time, bathed in perspiration, as is the rule in tetanus. A bad odor exhaled from his body, besides the smell from his urine and feces, which were frequently expelled into his bed by the tetanic spasms. Attempts to swallow food or drink, nearly brought on strangulation on several occasions; and, in consequence, he suffered at times on account of lack of nourishment.

His head was clear, and his mind unaffected, so that he fully realized all his sufferings. His respiration was very irregular, at times being quick and shallow, and at other times slow and deep, and often laborious and accompanied by heavy sighing. I need enter no further into details of symptoms, as nearly all symptoms belonging to tetanus were present in his case, at one period or another.

The treatment which I think benefitted him the most was that of large doses of pot. brom., assafoetida, tinct. of aconite, and chloral hydrate, together with the free hypodermic use of morphine. The eserine used may have done good—perhaps kept the patient from getting worse—but there was no marked effect from it. After using it for about ten days, then omitting it for about the same length of time, and then resuming its use again for several days, we could not perceive that its administration made any difference in the condition of the patient. I did not venture on curara, for I saw it used once and its effect was, I think, to hasten death; nor did I try cannabis indica, because, perhaps, I did not think of it, or did not consider it worth trying. Chloral hydrate and aconite were the most decided in their effects as anti-tetanic remedies, and next to these came the bromide of potassium. The hot bath had an excellent effect, but, of

course, the patient was then changing for the better. The friction with a stimulating embrocation, and the massage, I think, did good; but I have no doubt that the second amputation was the *sine qua non* to his recovery.

Some years ago, I tried, in a case of tetanus from a wound of the thumb, tincture of lobelia, tobacco enemata, bromide of potassium, chloroform, hot pediluvia, sinapisms, etc., without any avail, the patient dying on the 4th day. I have seen nearly all the standard remedies used and fail in the few cases of tetanus I have witnessed.

I have now outlined the treatment successfully pursued in the case of J.B.; but whether, when tried generally, it would be more successful than other methods or not, I am not in a position to say. Had I another case on hand, I should follow a similar course, namely, free purgation with calomel and jalap, morphine, pot. brom., assafoetida, chloral hydrate, aconite, eserine, stimulating embrocations, massage, a hot bath when possible, ice to the spine perhaps, quietness, and as much liquid nourishment as the patient could take.

Added to this course of treatment would be any other remedy which nascent symptoms might indicate, or which any peculiarity of constitution might demand, together with the best and most intelligent nursing which it would be possible to secure.

In Italy, Dr. Francesco Pavlini recommends subcutaneous injections of a one per cent. solution of carbol, at intervals of three hours, for the cure of tetanus; stating that in a very severe case in which warm baths and large doses of chloral hydrate had no effect, this treatment was successful—the temperature falling, and the severity and duration of the paroxysms being diminished, as early as the second day of its use. It was continued in gradually decreasing doses till the 27th day, when the cure was complete. In Bacelli's clinic, at Rome, a very severe case is said to have been successfully treated in a similar manner.

MORTON'S METHOD OF SPINA BIFIDA.

BY DR. JENNER, OF KINGSVILLE.

Read before the Ontario Medical Association.

On March 1st, I was called to see a child 3 weeks old, who had a spina bifida situated at the junction of the dorsal and lumbar vertebrae,