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Different formulæ for the fluid to be injected have been proposed, but the normal salt solution, containing .75 per cent. of salt and properly sterilized, seems to have given as good satisfaction as anything.

One of the latest methods of treatment has been the Kleb's anticholerine, a toxic material obtained from a pure culture of comma bacilli. It has not been extensively tried, but the reports so far do not indicate that it has much value.

To sum up, it does not seem that late years have given us any remedy or procedure of notable value. The battle yet remains to be fought out between the eliminative and astringent methods. I believe that the eliminative forces will win at no distant day, and that this will mark the first great advance in treatment.

The points on which I am specially anxious to hear a good discussion are:

- (1) Cholera frequently exists in a vicinity in such a mild form as to escape detection for a length of time, before malignant cases occur.
- (2) The eliminative method of treatment may not give the most prompt relief to suffering, but it ensures much the largest proportion of recoveries.
- (3) Opiates should be used only for relief to pain and shock, and then only after other anodynes have failed to give relief.

THE TREATMENT OF POTT'S DISEASE OF THE SPINE.*

BY A. B. JUDSON, M.D.,

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While caries of any part of the vertebral column cannot be considered an unimportant affection, it is well to recognize the fact that much depends on the region of the spine involved. In the middle dorsal region it is perhaps the most serious trouble, excepting malignant disease, that can attack the bones of the growing child. In this part of the spinal column the destruction is often extreme and the deformity great, evidently because the affected bones are at the greatest disadvantage mechanically. Lower down, the vertebral bodies are so large that they do not lose their relation of

mutual support until the loss of substance is very extensive, and above, the vertebral bodies, though small, have less weight to sustain. But in the intermediate portion not only do the bones feel the incessant movements of respiration, but they are also more widely moved in flexion and extension and in lateral curving with rotation than in other parts of the column, and furthermore they are exposed in a peculiar manner to the risk of over-strain from their position in the middle of the column. think it is in the experience of all of us that in this middle and upper dorsal region Pott's disease continues longest before consolidation takes place. Here we have a most striking illustration of the fact that the recovery from articular osteitis is postponed by unfavorable mechanical environment. As joints in the upper extremity, free from the mechanical stress attending locomotion, recover easily, while those which in the lower extremity, bear the heat and burden of the day, recover only after prolonged and extensive destruction, so articular osteitis in the cervical region of the spine is easily curable, while in the upper and middle dorsal region relief and repair come only after desperate and prolonged risk.

How can we best assist nature to cure this disease in this difficult part of the skeleton? The same general rules apply here as in the treatment of articular osteitis in the lower extremities. We can not cut short the disease by an operation or by any procedure whatever, but can expect with confidence, and must promote by our best endeavors, the arrest of destruction and the beginning of re-What then can we do to put the affected vertebræ in their best attitude and to raise the defensive and reparative powers of the system to their highest efficiency? As in articular osteitis occurring elsewhere we desire, (1) to relieve the bone of the duty of supporting weight and concussion, and (2) to prevent the affected joint from motion, believing that the arrest of these two functions, weight bearing and motion, are essential to good treatment. It does not seem wise to keep the patient recumbent for the long period necessary. In the management of hip disease we put the affected limb to bed, so to speak, while the patient is up and about. But a similar resort in Pott's disease is impossible. Since the patient is up and, to a certain extent, active in locomotion, our best resort, in my opinion, is to take what

^{*}Presented at the Pan-American Medical Congress at Washington, September, 1893.