

**Lectures on Elementary Physiology,
in relation to Medical Nursing.**

BY BEDFORD FENWICK, M.D.

Physician to The Hospital for Women, Soho Square.

LECTURE V.—THE NERVOUS SYSTEM.

(Continued from page 147.)

PARAPLEAGIA, or paralysis of the lower limbs, is a condition which requires very careful nursing. It is due to some injury or disease of the spinal cord, generally in the lumbar region, and therefore occurs more frequently in young persons or in middle life than amongst older people. These cases are most tedious, and, from the age of the patient, his complete helplessness and his enforced seclusion and inability of movement, they are very trying to nurse. There are also various concomitant troubles which increase the difficulty and the danger of the disease. For example, the same loss of nerve power which causes the paralysis of the limbs causes more or less loss of activity of the bowels and of the bladder; and so the functions of these organs are in most cases seriously deranged, and require most careful attention. The muscular walls of the intestines being deprived of their motor power, and therefore of peristaltic action, tend to contract and waste, just as we have recently seen that paralysed muscles in the limbs waste from disuse. Thus the diameter and capacity of the bowels are reduced, while the canal becomes more rigid, instead of being contractile and distensile, as it nominally is. The effect of purgatives in these cases is therefore greatly diminished, and such drugs frequently fail in their full effect. Consequently, the nurse must most carefully watch for, and report at once any signs of, serious constipation.

The treatment which has given the best result, because it is founded on the scientific understanding of the disease, is the application of the galvanic current to the intestinal walls. It has been explained in previous lectures that, when the nervous system loses its power of transmitting messages from the brain to the muscles, and when the latter in consequence cease to work, the best method of preventing wasting from disuse is to maintain muscular activity by means of the fre-

quent irritation and contraction of the muscle by an electrical current; and that, in order to be effectual, galvanism must be used before the muscles commence to waste. Consequently, in these cases, the doctor generally recommends the use of this remedy as soon as inflammatory symptoms have passed away. One pole of the battery is usually placed over the lower part of the spinal column, and the other is moved over the abdominal surface along the course of the intestines, so that the current passing from one pole to the other through the body may excite muscular contraction in the walls of the intestines, and thus maintain them, as far as possible, in functional activity. The application is generally directed to be repeated frequently, and for a few minutes on each occasion, rather than be given for longer periods and less often, because the latter course would tend rather to tire and exhaust the muscular strength instead of strengthening it.

The same reasoning and treatment holds good in the paralysis of the bladder, which takes place so often in these cases, and which exhibits itself either by retention, or incontinence of urine. The object to be gained, in either case, is to maintain the muscular activity of the organ, and so the electrical current can again be used with much benefit. Sometimes the doctor will apply the current himself, by means of a special sound, direct to the wall of the bladder, but the more usual plan is to place one pole over the spine and the other just above the pubes. If there be retention, the use of the catheter must be carried out with all the antiseptic precautions explained in previous lectures. If there be incontinence, extreme care must be taken to keep the patient dry, because, otherwise, it will be difficult, if not impossible, to prevent the formation of bedsores. For this purpose, the free use of absorbent wool and antiseptic dusting powder are invaluable, and special appliances will doubtless be ordered by the doctor to obtain the same end.

It has already been noted, in these lectures, how easily bedsores form in patients suffering from diseases or injuries of the nervous system, due of course partly to the loss of sensation, which permits long-continued pressure to take place, with its consequent evil results, without causing marked discomfort.

(To be continued.)

[previous page](#)

[next page](#)