

advocated that the nerve filament should *not* be dissected from the sac, but that the portion of the sac wall to which the nerve is adherent, should be cut away from the remainder of the sac, and that the nerve and its adherent ribbon of sac wall should then be replaced within the canal. This is the method to which I resorted in Case 8, and the result was entirely satisfactory. Nicoll, of Glasgow, has recently reported a number of meningo-myeloceles, to which he found the sac "so occupied by expanded nerves, that it was impossible to excise even small portions of the sac without injury to the nerves. With the knife he carefully tore such small areas as seemed free from nerve tissue, and gently but pretty thoroughly roughened the whole interior, including the surface of the nerve cords in many parts, and stitched up." The results, he says, have so far been excellent. The sac is replaced by a hard fibrous nodule and nerve function is carried on normally.

Thus we have three different methods by which we may meet the three conditions already mentioned: (1) The simple meningocele treated in the usual way. (2) The sac, containing a moderate number of nerve filaments, treated by Mayo Robson's method of "ribboning" the sac, removing the redundant portion and replacing the nerve filaments within the canal. (3) The sac, filled with expanded nerves, in which case Nicoll simply scarifies the whole interior without attempting to reduce the mass, and trusting to fibrous inflammation to obliterate the sac. There might be a fourth class of cases mentioned, in which the sac is ruptured during the birth of the child. I am not sure as to our duty in these cases. I know of one case in this city in which there is a very definite history of rupture during birth, and which was treated by pressure alone. This child is now ten years of age, is fairly healthy, but not robust. She has a hard fibrous mass, three inches across, in the mid-lumbar region. Her nerve functions are normally performed. A similar case is reported in the *Brit. Med. Jour.* for October, 1897. This case also recovered fully under pressure treatment. I am inclined to think, however, that spontaneous cure in these cases is very exceptional, and that the child should be given the benefit of an immediate operation.

In looking over my cases I have been struck by three facts:

1. I did not decline to operate in any case. I am as yet entirely at a loss as to where to draw the line beyond which the operation is unjustifiable.

2. The presence of nerves within the sac is not necessarily indicated by deformities or paralysis. Reynolds Wilson, of Philadelphia, says: "Imperfect fusion of the vertebral arches is due to early defect in the blastoderm. This depends on some cause which may interfere with the development of other