

## IS LUMBAR PUNCTURE HARMFUL IN MULTIPLE SCLEROSIS ?

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That lumbar puncture is detrimental in multiple sclerosis has been taught for many years; the origin of this belief and the evidence on which it is based are difficult to trace. The general warnings sometimes given in text-book accounts of contraindications to lumbar puncture in this disease appear to depend chiefly on the familiar experience of an occasional instance in which clinical deterioration has followed the procedure. More recently, during the Sixth International Neurological Congress held in Brussels in July, 1957, Professor K. Henner stated firmly that lumbar puncture was contraindicated in the disease (Henner, 1957). This view was at variance with my own experience, and served as a stimulus to consider the question more closely.

During a current survey of cases of multiple sclerosis in north-eastern England, during which 700 patients were personally interviewed and examined, enquiry was made as to whether lumbar puncture had been carried out at any stage of the illness, and also as to the course of the disease during the subsequent month. Of the patients questioned, rather less than half had been subjected to spinal puncture, and in 250 instances the information was considered sufficiently reliable for analysis. Of these, 231 patients reported their condition as unchanged, 14 patients reported improvement, and five patients considered that their condition had deteriorated. This retrospective information refers essentially to the patient's own assessment with regard to the month following spinal puncture, though in many instances this was authenticated by a record of objective findings. For what such enquiry is worth, it lends little support to the view that this procedure significantly affects the course of the disease.

The difficulty of controlled observation in multiple sclerosis is one with which every worker engaged in its study is familiar: a second phase of the enquiry involved a comparison in 100 cases of the apparent course of the condition during the month following lumbar puncture with the tempo

of progression evident during similar periods 12 months earlier and 12 months later.

Of these 100 patients, in 81 there was no difference in the course of the disease during the month following lumbar puncture by comparison with that during a similar period a year earlier and a year later. In 19 cases significant differences were noted.

One patient showed very marked deterioration following lumbar puncture: in this case the disease showed steady but less dramatic progression during both the periods used for comparison.

Eight patients improved during the month following spinal puncture, and of these none had been similarly improving 12 months previously, when in four the condition was static and in four gradually progressive. A year later four were improving, in three the condition was static, and one patient was deteriorating.

Ten patients showed no definite change during the month following lumbar puncture. Twelve months previously none of these was improving, in two the condition was static, and eight were deteriorating. A year later one was improving, six were static, and in three the condition was gradually becoming worse.

Five of the 250 patients studied had been subjected to myelography: in no instance did this procedure perceptibly alter the patient's condition.

These results indicate that lumbar puncture has little effect on the course of multiple sclerosis, and that any apparent effect occasionally observed is as likely to be favourable as deleterious. The risks of overlooking clinically atypical compression of the spinal cord are well known. There is clearly no reason to withhold the procedure in any case where the faintest suspicion of such a lesion arises.

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### REFERENCE

Henner, K. (1957). *Excerpta med. (Amst.)*, Sect VIII, 10, Congress Issue, p. 40.