

POST-TRAUMATIC SYRINGOMYELIA

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IN 1963 we described a series of eight patients, paraplegic from trauma at or below the fourth thoracic vertebral body, in whom a progressive loss of higher spinal cord function developed and gradually progressed so as to convert paraplegia into varying degrees of quadriplegia.

Of 729 spinal cord injuries cared for in Lyndhurst Lodge Hospital in Toronto, 13 have now developed this complication—an incidence of 1·8 per cent. Altogether we have had the opportunity of observing 15 cases with this progressive syringomyelic complication of serious spinal cord injury.

The development of this complication tends to occur after a variable lapse, usually of several years from the time of the trauma. The time of onset of the upper limb symptoms is independent of the level of the injury. Where the trauma rendered the patients totally paraplegic, the average time interval until new symptoms developed was 4·1 years. When the injury initially left the patient incompletely paraplegic, the time was more than double, at 9·7 average.

It will be recalled that in all cases initial symptoms and signs clearly reflected an asymmetrical central gray matter spinal cord syndrome. Frequently the history suggested pain and/or numbness ascending from the level of the original trauma up to the highest spinal segments. Invariably it began unilaterally involving fibres conducting pain and temperature, reflex fibres, and in some instances anterior horn cells. The picture became bilateral in nine of the cases. In five instances, a severe upper limb involvement produced a very serious disability.

Our concern was, of course, with the worsening of the patient's condition and after much thought and consideration we were able to induce our surgical colleagues to investigate the lesion and try surgical measures for relief.

The present paper, then, in addition to reporting more cases, deals with the surgical measures of treatment used and the results thereof. We are happy to be able to state that significant improvement has been obtained in certain cases surgically and in one or more others there has been apparent arrest of progression.

Discussion

Mr. P. HARRIS (*G.B.*). I, of course, agree with Dr. Morgan, and he quoted me as being a non-laminectomy neurosurgeon as far as spinal injury goes, and that is well known. I was aghast at these complications following laminectomy—it is very disturbing to all of us, I am sure, and I would like to ask him if he could give us some idea of the numbers of neurosurgeons and their seniority in this series. Was this one group, one surgeon, as this is terrible that this should happen.

With regard to Dr. Bedbrook, he knows my feelings about this business of stabilisation. I think it is overstressed, and I would agree with most of what he says. I understood that he does not see any patients with delayed neurological damage. I am not too sure that this is correct and he may answer this. And, finally, I might, as far as Dr. Bedbrook's paper goes, ask him about stability of atlanto-axial dislocation. It is a tricky problem—I don't think he had any in his series. I just don't remember. Regarding Dr.