

## References

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## Reply from Dr Dominic Foo.

A copy of this letter was sent to Dr Dominic Foo who replied:

‘In this paper, cervical spondylosis was defined by the presence of radiological evidence of osteophyte formation causing narrowing of the spinal canal (Figure 1) or intervertebral foramina (Figure 2). This definition was an operational one for the purpose of selecting the patients who had or were likely to have spinal stenosis; this was also the reason why patients with slight or mild degenerative changes of the spine (Figure 3) were not included. Measurement of the sagittal diameter of the cervical spine from the posterior margin of the vertebral body to the junction between the laminae and spinous process for evidence of stenosis is reliable in patients with developmental stenosis. However, in patients with cervical spondylosis, there are two factors causing narrowing of the spinal canal: one is a static factor that could be developed by degenerative changes of the intervertebral discs and vertebral bodies, and the other is a dynamic factor induced by a pincers effect of the cervical vertebrae accompanying neck extension (Hanai *et al.*, 1986). Besides, myelography in these patients often reveals thickening and/or infolding of the ligamentum flavum (Peterson and Kieffer, 1975), causing narrowing of the spinal canal; myelography was not performed in many of our patients. For these reasons, measurement of the sagittal diameter of the cervical canal is not the most reliable method in detecting spinal stenosis in patients with cervical spondylosis; the sagittal diameter of the cervical canal in many of our patients was greater than 14 mm.

Spinal cord injury occurs in patients with cervical spondylosis (Hughes and Brownell, 1963; Symonds, 1953), often as the result of hyperextension trauma. Cervical spondylosis is common in the elderly individual but the degree of involvement of the spine varies from person to person. By excluding patients



**Figure 1** Lateral cervical radiogram showing extensive degenerative changes at the C5–C6 vertebral level where the sagittal diameter of the spinal canal was 10 mm.



**Figure 2** Oblique cervical radiogram showing narrowing of the intervertebral foramina at multiple levels.



**Figure 3** Lateral cervical radiogram showing slight degenerative changes of the spine (white arrows).

with mild degenerative changes of the spine, this study was designed to show that cervical spondylosis is a contributory factor rather than an accompanying feature in these patients who sustain a spinal cord injury.

This study was conducted in a Veterans Administration Hospital in which the great majority of the patients are male (please refer to the section on 'Patients and methods') and it so happened that all the 44 patients in the study were male subjects.'

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## References

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