Interspinous devices

Interspinous devices were developed to treat spinal stenosis, but now have an increasing use which is being widely evaluated.

They are inserted in between the spinous processes at the back of the spine. Initially the aim was to jam the spinous processes apart and so open up the spinal canal and provide more room for the nerves and so provide an 'indirect' decompression. However, they also offload the facets and therefore may help facet joint pain or even discogenic pain.

Many spacers are now on the market – some simply distract whereas others have the additional option of being secured to the spinous process above and below e.g. Diam, Wallis Ligament and so provide a degree of stabilisation. The main indication is for spinal stenosis, but increasingly surgeons are reporting their use in the treatment of facet or discogenic pain and in 'topping off' above rigid constructs. The great advantage with these spacers is that they are very easy to insert, it can be done as a minimally invasive procedure with low risk as the canal is not entered and may therefore be an intermediate option before a formal and final fusion is considered

For stenosis

In the treatment of spinal stenosis, the ideal indication is spinal foraminal stenosis although other patterns of stenosis may benefit. Initial protagonists of the technique favoured an approach whereby the canal is not entered but many surgeons still perform a conventional decompression and supplement it with an interspinous spacer to keep the space open. At present, the results of studies are awaited comparing the 2 techniques and the indications are yet to be clearly defined. Certainly, in frail elderly patients, interspinous spacers inserted under local anaesthetic as a day case procedure is an attractive option, but in most a formal decompression is necessary or at least needed as an additional procedure.

For low back pain

The device offloads the facet and disc and so may reduce pain emanating from these sources. The effect is unlikely to be immediate, but as stated above the great advantage is that the integrity of the spine is not really affected, and the option of fusion (for example) is still available.

'Topping off'

If a fusion is performed and the level above is degenerate then some surgeons have started to insert a spacer above the fusion to 'protect' the level above from developing problems – 'adjacent segment disease' – this is theoretical and no proof at this stage exists for this although studies are ongoing.

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