Title:	**Intradiscal electrothermal anuloplasty – a treatment for patients with chronic low back pain due to anular disruption of contained herniated disks**
Agency:	Medical Services Advisory Committee (MSAC) Commonwealth Department of Health and Ageing GPO Box 9848 Canberra ACT 2601 Australia
Reference:	MSAC Application 1048 Assessment Report First printed: March 2003 **http://www.msac.gov.au** ISBN 0 642 82188 7

Aim

To assess the safety, effectiveness and cost-effectiveness of intradiscal electrothermal anuloplasty for the treatment of patients with chronic low back pain due to anular disruption of contained herniated disks, relative to the comparator treatments (ie, spinal fusion and continued conservative care).

Conclusions and results

Safety

At present, level III-2 and IV evidence is available to describe the safety of intradiscal electrothermal anuloplasty in the treatment of chronic back pain secondary to anular disruption of contained herniated discs, with one non-randomised, open-label, quasi-controlled study (level III-2), five uncontrolled studies (level IV) and two case reports (level IV) identified. The safety data available have been poorly reported, with adverse events either not reported or reported with little detail. However, preliminary evidence suggests that the level of complications associated with intradiscal electrothermal anuloplasty is low. It should also be noted that the safety of intradiscal electrothermal anuloplasty should be considered relative to spinal surgery (ie, spinal fusion) and conservative therapy programs.

Effectiveness

As with safety, level III-2 and IV evidence is available to describe the efficacy of intradiscal electrothermal anuloplasty in the treatment of chronic back pain secondary to anular disruption of contained herniated discs, with one non-randomised, open-label, quasi-controlled study (level III-2) and four uncontrolled studies (level IV) identified. The preliminary data show improvements in visual analogue pain scale outcomes and return to work or previous function, as well as reductions in pain medication, for patients treated with intradiscal electrothermal anuloplasty. However, these preliminary data are based on low-level clinical evidence, which is likely to be vulnerable to considerable bias. Hence, the robustness of these results is uncertain.

Cost-effectiveness

There are currently insufficient data to estimate the effectiveness of intradiscal electrothermal therapy compared with continued conservative therapy or spinal fusion. Primarily, there is a lack of high-quality evidence regarding the intradiscal electrothermal procedure. Moreover, there was no evidence identified on which to base an indirect comparison of the procedure with continued conservative therapy or spinal fusion.

Recommendation

Since there is currently insufficient evidence pertaining to intradiscal electrothermal anuloplasty, a treatment for patients with chronic low back pain due to anular disruption of contained herniated discs, MSAC recommended that public funding should not be supported at this time for this procedure. The Minister for Health and Ageing accepted this recommendation on 6 December 2002.

Methods

MSAC conducted a systematic review of the medical literature pertaining to intradiscal electrothermal anuloplasty, spinal surgery (ie, spinal fusion) and continued conservative therapy. A thorough search of the medical literature was carried out via electronic databases and health technology assessment websites. Those citations that met predefined inclusion criteria were included in the review of evidence.