

Title Radiofrequency Neurotomy of Genicular Nerve Of Both Knee

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Aim

To assess the safety, effectiveness, cost effectiveness of radiofrequency neurotomy of genicular nerve in the treatment of osteoarthritis of both knees.

Conclusions and results

Three full text articles on radiofrequency neurotomy which met the inclusion/exclusion criteria were included in this systematic review. There was limited retrievable good level of evidence to support the use of radiofrequency neurotomy of genicular nerve in the treatment of OA of the knees. The evidences demonstrated that radiofrequency neurotomy of genicular nerve appeared to be effective in a subset of elderly patient with chronic OA of the knee pain not responding to conservative treatments who had positive response to diagnostic block. There was significant pain reduction, functional improvement and treatment satisfaction observed in these groups of patients compared to the control groups. This procedure also appeared safe. Only minor post-procedure adverse event of prolonged hypoesthesia and subcutaneous bleeding at insertion site were reported. There was no evidence retrieved on its cost effectiveness.

Recommendations

Based on the above review, there was limited retrievable good level of evidence on the effectiveness and safety of radiofrequency neurotomy of genicular nerve for reduction of pain in patients with knee osteoarthritis. The retrievable evidences demonstrated short term benefit of this procedure for specific group of patient (knees of elderly patients with OA not responding to conservative treatment, but who have positive response to diagnostic block). Hence, this procedure may be recommended for research purpose as a potential alternative treatment for chronic severe OA pain refractory to other conservative treatments.

Methods

Literature were searched through electronic databases which included PubMed, Medline, Cochrane Database of Systematic Reviews, Cochrane Database of Controlled Trial, Health Technology Assessment, National Horizon Scanning, other websites; INAHTA, ASERNIP-S, CADTH, FDA, MHRA and general databases such as Google. Additional articles retrieved from reviewing the bibliographies of retrieved articles or contacting the authors. A critical appraisal of all relevant literature was performed using Critical Appraisal

Skills Programme (CASP) checklists and the evidence graded according to the US/Canadian Preventive Services Task Force Level of Evidence (2001).

Further research/reviews required

Further research is recommended to be conducted not only to demonstrate more objectively the efficacy of RF genicular neurotomy but also to track any long-term adverse effects, and to establish its cost-effectiveness in a larger study population with longer follow-up before it is being used in the treatment of knee osteoarthritis.

Written by

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