O004 CLINICAL AND COST-EFFECTIVENESS OF ULTRASOUND-GUIDED INTRA-ARTICULAR CORTICOSTEROID AND LOCAL ANAESTHETIC INJECTION FOR HIP OA: A RANDOMISED CONTROLLED TRIAL (HIT)

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Background: Evidence of the effectiveness of intra-articular corticosteroid injection for hip osteoarthritis (OA) is limited. The HIT trial compared the clinical and cost-effectiveness of an ultrasound-guided intra-articular hip injection (USGI) of 40mg triamcinolone acetonide and 4ml 1% lidocaine hydrochloride combined with best current treatment (BCT) with (i) BCT alone (primary objective) and (ii) an USGI of 5ml 1% lidocaine only combined with BCT (EudraCT:2014-003412-37).

Methods: This was a pragmatic, three-parallel arm, single-blind, randomised controlled trial in adults with moderate-severe painful hip OA recruited from community musculoskeletal services and primary care. Participants were randomised equally to: (1) BCT alone, (2) BCT plus USGI triamcinolone/lidocaine, or (3) BCT plus USGI lidocaine only. Outcomes were collected postally at 2 weeks, 2, 4 and 6 months. The primary outcome was self-reported current hip pain intensity (0-10 numeric rating scale (NRS)) over 6 months (repeated measures analysis). Secondary outcomes included function (WOMAC), and, for cost-utility analysis, general health (EQ-5D-5L) and healthcare utilisation. 204 participants were required to detect a minimum difference of 1 point in mean pain NRS score between arms (1) and (2) with 80% power (5% two-tailed significance level, 15% loss to follow-up). Analysis was by intention-to-treat.

Results: 199 participants were recruited (43% male, mean age 63 years), 67 to arm (1) and 66 each to arms (2) and (3). Primary outcome completion rates were 95% at 2 weeks, 94% at 2 months, 90% at 4 months, and 89% at 6 months. Greater mean improvement in hip pain intensity (0-10 NRS) over 6 months was seen with BCT plus USGI triamcinolone/lidocaine compared with BCT alone: -1.43 (95%CI -2.15,-0.72). Greater mean improvement in pain intensity was seen at 2 weeks (-3.17; -4.06,-2.28) and 2 months (-1.81;-2.71,-0.92), but not at 4 (-0.86;-1.78,0.05) or 6 months (0.12; -0.80,1.04). Participants treated with BCT plus USGI triamcinolone/lidocaine compared with BCT alone had greater mean improvement in function (WOMAC-F -5.47;(-9.41,-1.53)) over 6 months. There was no statistically significant difference in hip pain intensity over 6 months between BCT plus USGI triamcinolone/lidocaine compared with BCT plus USGI lidocaine (-0.52;-1.21,0.18). There was one possible treatment-related serious adverse event: a participant with no signs of infection at randomisation died from endocarditis four months after USGI triamcinolone/lidocaine. BCT plus USGI triamcinolone/lidocaine was less costly (mean cost difference per participant £-161.59) and associated with significantly higher quality-adjusted life-years (QALYs) than BCT only over 6 months (mean difference 0.0477 (0.0257,0.0699).

Conclusion: USGI triamcinolone/lidocaine plus BCT leads to greater improvements in pain and function over 6 months in adults with hip OA than BCT alone, and was highly cost-effective. There was no significant difference in hip pain intensity between the groups receiving USGI triamcinolone/lidocaine and USGI lidocaine only, raising the possibility of a degree of placebo effect.

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