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10-YEAR FOLLOW-UP AFTER INTRA-ARTICULAR INJECTIONS OF 2.5 % POLYACRYLAMIDE HYDROGEL FOR KNEE OSTEOARTHRITIS

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Objective:
To evaluate long term safety of intra-articular 2.5 % polyacrylamide hydrogel (iPAAG)

Material and Methods
Patients treated off-label with iPAAG for radiologically verified knee OA in the period 2010 until 2017 were recalled. Medical and surgical records were obtained on all recalled patients and scrutinized for possible adverse events or abnormal reactions related to the injection, and in the event of subsequent surgery, for peri- and post-operative complications for the treated knee(s). An interview was also conducted for retrospective self-reported adverse events after the injection of iPAAG. The time between IA injection and knee surgery was recorded.

Results:
A total of 61 patients (24 women and 37 men) participated. At the time of injection, mean age was 64 years (range 34-81) and mean BMI was 27 kg/m^2 (range 19-43 kg/m^2). Some patients had treatment of both knees and 89 knees were included. Observation time from the iPAAG treatment to follow-up was mean 9.92 years (range 7-14 years).
No significant AEs related to iPAAG were reported by patients or found in the records; thus, no allergic reactions, infections or systemic adverse events were noted.
In 39 cases (39/89, 43.8 %) a knee replacement was performed after a mean time lapse of 3.4 years (range 0.2-7.6 years). The mean time lapse was similar for all KL grades. Post surgical abnormal events were noted in 2 cases: 1 had prolonged knee bleeding and the other had an infection that required revision and prolonged antibiotics. These 2 patients had received multiple other injections including glucocorticosteroids, both before and after the iPAAG.

Conclusion:
Long-term results after iPAAG indicated a favourable safety profile of the product, with very few patients recalling pain or problems post-injection. Surgical records from subsequent knee replacements gave no indications of unusual adverse reactions.

Disclosure:
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EFFECTS OF INTRA-ARTICULAR HYALURONIC ACID INJECTIONS ON PAIN AND FUNCTION IN KNEE OSTEOARTHRITIS PATIENTS: AN UMBRELLA REVIEW OF SYSTEMATIC REVIEWS AND META-ANALYSES OF RANDOMIZED PLACEBO-CONTROLLED TRIALS

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Introduction: Knee osteoarthritis (OA) is a prevalent and disabling condition characterized by pain and functional impairment. Intra-articular hyaluronic acid (IAHA) injections are widely used for symptom relief, but their efficacy remains debated due to conflicting conclusions across systematic reviews (SRs) and meta-analyses (MAs). This umbrella review aims to assess the symptomatic efficacy of IAHA in knee OA based on evidence reported by previously conducted SR and MA, identify factors contributing to discrepancies in SR/MA findings, and summarize consistent outcome trends.
Methods: This umbrella review followed Cochrane guidelines for overviews of reviews and adhered to the PRIOR reporting checklist. It was registered in PROSPERO (CRD42024625696). A systematic search was conducted in Medline (Ovid), Cochrane Database of Systematic Reviews (Ovid CDSR), and Embase, using a predefined Population/Intervention/Comparator/Outcome/Study design (PICOS) framework. SRs of randomized controlled trials (RCTs) evaluating IAHA efficacy on pain and/or function compared to placebo were included. Exclusion criteria were SRs including both RCTs and non-RCTs without separate synthesis of data from RCTs, scoping reviews, abstracts, commentaries, or narrative reviews. Two independent reviewers screened titles,/abstracts, and full texts, resolving disagreements by consensus. Risk of bias was assessed using the AMSTAR-2 checklist, classifying SRs as high, moderate, low, or critically low quality.
Results: Twenty-two SRs were included, with AMSTAR-2 quality ratings as follows: four high, one moderate, three low, and fourteen critically low. The majority (20/22) reported significant beneficial effects of IAHA on pain and function, with 15 SRs concluding positive outcomes, 3 reporting mixed conclusions, and 4 reporting negative conclusions. Among high/moderate-quality SRs, all five reported significant beneficial effects, with three concluding positively and two negatively. Negative or mixed conclusions were primarily attributed to restrictive inclusion criteria (e.g., large trial-only analyses, minimum patient numbers, long follow-up periods) and challenges in interpreting clinical relevance.
Conclusion: Most SRs and all high-quality SRs support the significant symptomatic efficacy of IAHA in knee OA. Negative interpretations arise when restrictive inclusion criteria challenge the clinical relevance of results. These findings highlight the need for standardized methodologies in SRs to provide clearer guidance for clinical practice.