Association Of Corticosteroid Injection Vs Hyaluronic Acid Injection With Structural And Surgical Outcomes In Knee Osteoarthritis.

PRESENTER:

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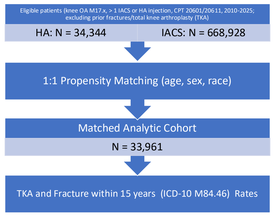


BACKGROUND:

- Limited literature has indicated that intra-articular corticosteroid injections (IACS) may predispose patients to microfractures and progression to knee osteoarthritis, whereas Hyaluronic Acid (HA) injections have not been linked.
- No large-scale comparative data between IACS and HA on fracture risk and surgical outcomes has been reported.

METHODS

- **Retrospective cohort study, TriNetX US Collaborative Network Study**



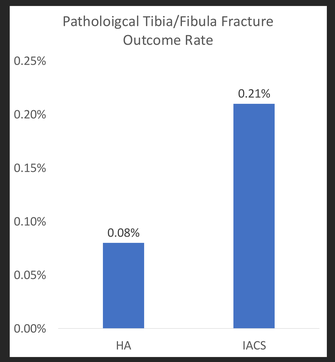
RESULTS

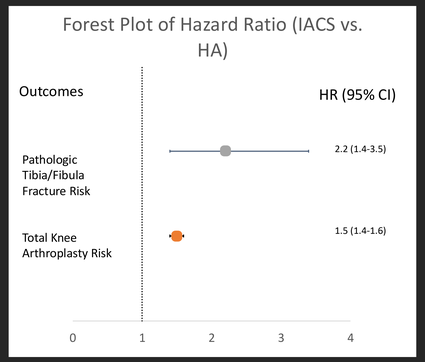
- Median follow-up was 740 days for HA, 1330 days for IACS
- Pathologic tibia/fibula fractures occurred in 26/33,893 HA patients (0.08 %) versus 70/33,877 (0.21 %) in the IACS group.
- IACS was associated with an increased risk of fracture (HR ≈ 2.2, 95 % CI 1.4–3.5).
- TKA occurred in 2,134/33,668 HA patients (6.3 %) and 3,875/33,065 IACS patients (11.7 %) with HR ≈ 1.5 (95 % CI 1.4–1.6).

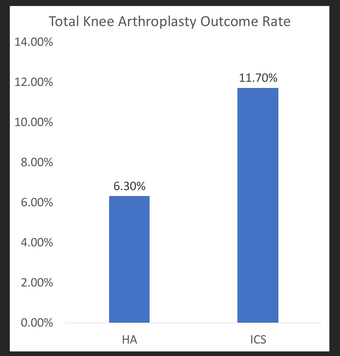
Discussion:

- Both insufficiency fractures and TKA were more frequent after IACS than HA.
- These findings align with the documented literature describing IACS related harm including cartilage loss,[2] joint space narrowing,[3] and Kellgren-Lawrence progression[4] while comparatively little has linked HA to bone damage.[1]
- As a cohort matched only on age, sex, and race, confounding by indication cannot be excluded.[5] This preliminary analysis warrants further study of injection choice in higher-risk osteoarthritis patients.

Intra-articular Corticosteroid injections were correlated with a ~2x increased risk of pathological tibia/fibula fractures and a ~1.5x increased risk of total knee replacement compared to Hyaluronic Acid Injections







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