

2. Cell-based versus corticosteroid injections for knee pain in osteoarthritis: a randomized phase 3 trial

Cellular injections have become a popular but costly treatment for knee osteoarthritis, with limited evidence comparing their efficacy to corticosteroid injections (CSI). This phase 2/3, four-arm, multicenter, single-blind trial compared the safety and efficacy of three cell injection types—autologous bone marrow aspirate concentrate, adipose stromal vascular fraction, and allogeneic umbilical cord tissue-derived mesenchymal stromal cells—to CSI in 480 patients with knee osteoarthritis. Participants were randomized into three arms, each with cell injection (n=120) and CSI (n=40). At 12 months, none of the cell treatments showed superiority over each other or CSI based on pain scores or MRI osteoarthritis scores. No serious adverse events were reported. These findings suggest no added benefit of cellular injections over CSI for knee osteoarthritis. ClinicalTrials.gov Identifier: NCT03818737.

