

Role of combined intra-osseous and intra-articular injections of PRP with BMAC and micro-fragmented adipose tissue in osteoarthritis



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Abstract

Osteoarthritis is one of the most common chronic degenerative diseases limiting mobility and reducing quality of life. Recently focus of etio-pathogenesis of OA has expanded from cartilage and synovial pathology to include subchondral bone pathology. Now both cartilage and subchondral bone are being considered as a very dynamic and complementary structures. With cartilage degeneration, subchondral bone becomes thin and more porous in early OA while it shows sclerosis and increased intensity in late stages of osteoarthritis. Intra-articular and intraosseous Leucocyte Poor PRP (LPPRP) has been used to tackle all the pathology of the osteoarthritis joints. A new approach of combining intraosseus and intra-articular PRP with bone marrow concentrate (BMAC) and micro fragmented adipose tissue (MAT) was used in osteoarthritic joints. Patients with clinicoradiographic diagnosis of early to moderate osteoarthritis knee, hip and shoulder joints were given fluoroscopic guided one combined intraosseus and intra-articular injection of LPPRP with BMAC and MAT followed by two intra-articular injections of LP-PRP at weekly interval. Mild knee swelling and moderate pain was seen for 3 postoperative days which was managed by oral paracetamol only. Patient's KOOS score and VAS score improved at three and six months and improved quality of life. Author believes that combined PRP and BMAC reduce inflammation, promote healing of the damaged tissue, support cartilage and sub-chondral bone remodelling. Addition of MAT also supplements the healing and acts a scaffold.

Biography

Ashok Kumar did his MS Ortho from AIIMS and FRCS/Mch Ortho/ Diploma in Sports Medicine from UK. He is Diplomat and Board certified from American Academy of Regenerative Medicine. He worked as an Assistant Professor at AIIMS, New Delhi; has published 31 International papers. Currently he is working as a Specialist Orthopaedic Surgeon at Saudi German Hospital, Dubai and Emirates Integra Dubai Health Care city; and Medical Director of My Doc Specialist Medical Centre, Dubai. He is an expert in treating degenerative and traumatic disorders of joints/ligaments/tendon by using stem cells/PRP/autologous Conditioned serum and by joint and ligament reconstructions.



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