

PLATELET RICH PLASMA THERAPY USING IN POST-COVID ASEPTIC NECROSIS OF FEMORAL HEAD

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As a pathological process, aseptic necrosis of femoral head is characterized by avascularity of the femoral head, cellular necrosis, microfracture, and collapse of the articular surface. One of the well known procedure in early stages is core decompression(CD). CD can be done alone, which only removing dead bone tissue from necrotic area, reducing venous pressure and can be give a chance for further bone healing or can be inserted PRP after drilling. PRP contains growth factors in addition to platelets, such as platelet derived growth factor, transforming growth factor- β , basic fibroblast growth factor, endothelial growth factor, and vascular endothelial growth factor, which have an important effect on tissue repair and the proliferation and differentiation of mesenchymal stem cells.

Aim To evaluate the PRP therapy efficacy in patients with aseptic necrosis of femoral head at early stages after CD.

Materials and methods. This retrospective study was conducted from September 2020 till June 2022 in Tashkent, Akfa Medline Clinic. We have chosen VAS for assessment of the clinical improvement after core decompression(CD). This study was conducted among 4 AVN patients (8 hip joints) in early stage of disease, who suffered from coronavirus infection and taken steroids as treatment. Youngest patient was 36 and oldest 44 years old, average – 39. All of them CD was performed bilateral, and inserted PRP to drilling holes mainly to the necrotic area. VAS score measured day before surgery and 2nd post-operation day.

Results. There were 8 joints was involved to the study. 2 of them were diagnosed on MRI Ficat 1st stage, 1 of them Ficat 2nd stage and Ficat 3rd stage. The mean VAS score day before surgery was 7.0, and post-operative day was average 2.0 ($p < 0.005$).

Conclusion. Core decompression with PRP therapy is an effective and safe method of treating post-covid AVN in early stages, it gives good clinical improvement due to pain relief. High-quality randomized controlled trials and prospective studies will be necessary to further clarify the effectiveness of CD.

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