



LETTER TO THE EDITOR

Platelet-rich plasma injection in a patient with adhesive capsulitis due to chronic kidney disease

Kronik böbrek hastalığına bağlı adhezif kapsülitli hastada trombosit zengin plazma enjeksiyonu

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To the Editor,

%75 of hemodialysis patients suffer from pain whether causes from musculoskeletal system or not.^[1] Adhesive capsulitis is a common problem in patients with chronic kidney disease. Patients suffer from joint stiffness and painful joint movement. However, symptoms can relieve after 3 years from beginning, some may be permanent. Conservative treatments consist non-steroid antiinflammatory drugs, intraarticular injections and physical therapy.^[2, 3] Newer approaches such as platelet-rich plasma injections (PRP) also can be applied but there is little evidence for the effectiveness of PRP in patients with adhesive capsulitis. PRP consists higher level of growth factors and thrombocytes that have regenerative potentials.^[4]

A 70 year-old woman, receives dialysis treatment admitted to our out-patient clinic with stiffness and pain in her right shoulder. Symptoms lasted for 5 years. Her diagnosis was confirmed with MRI as adhesive capsulitis. Shoulder movements were limited. Affected side was right and arteriovenous fistulas were on the left side. Patient had received different conservative treatments many times such as anti inflammatory drugs, corticosteroid injections and physical therapy. After the signed informed consent, the procedure began to be applied as planned; 3 times, 15 days between each PRP injection. Visual

analog scale (VAS) , disabilities of the arm, shoulder and hand questionnaire (DASH) and range of motion (ROM) of her right shoulder were evaluated before the procedure process. ROM, DASH and VAS were assessed every 2 weeks after each injection. ROM evaluation was done with goniometer. Pre-treatment ROM was 75° for flexion, 30° for extension, 45° for abduction, 0° for internal rotation and 30° for external rotation. At the last assesment average ROM increased on flexor, abductor and internal rotator sides. It was evaluated 90° for flexion, 90° for abduction and 30° for internal rotation. However, she didn't report any improvement for function and pain based on DASH and VAS.

PRP is used in the treatment of shoulder pathologies. Previously, it was revealed that they lead to decrease pain and improve functions in patients with rotator cuff partial-thickness tears,^[5] but there is limited evidence for patients who have adhesive capsulitis due to chronic kidney disease or other co-morbid factors. Only a case report mentioned recovery after PRP in a patient with adhesive capsulitis without any leading co-morbid factors.^[6] Our patient reported little improvement in ROM but didn't report any recovery for pain and functional outcome. PRP should be kept in mind in patients with adhesive capsulitis to improve ROM but there is need for further studies additionally consisting subjects that have co-morbid diseases.

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