Aims: Osteoarthritis (OA) is the most widespread chronic joint disease worldwide. Conservative treatments models may not be effective and some of them have serious adverse effects that prompted the researchers to research different treatment methods. In this study, we investigated short and mild term effectiveness of genicular nerves radiofrequency (RF) applied in patients with chronic knee pain due to OA.

Method: This study was approved by our Institutional Review Board and informed consent was obtained from all patients. Radiofrequency was performed on 49 patients with diagnosis of knee OA (Table 1). VAS and WOMAC Index of Osteoarthritis were measured at baseline and 1st, 4th, and 12th weeks postprocedure. Under fluoroscopic guidance, the cannula was advanced percutaneously towards area connecting the shaft to the epicondyle. Sensory stimulation at 50Hz was performed to identify the nerve position. The nerve was tested for the absence of fasciculation in the corresponding area of the lower extremity on stimulation of 2V at 2Hz. The RF electrode was inserted through the cannula, and the electrode tip temperature was raised to 80C for 60 seconds. One RF lesion was made for each genicular nerve.

Results: We observed an improvement in pain. VAS scores were at the first: 4.73±3.23; fourth: 3.89±2.9; twelfth weeks, 3.93±2.95 after the procedure and WOMAC score were 44.93±13.18; 42.81±13.15; 43.04±13.36 respectively (Table 2).