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TYPE : ORAL PRESENTATION

CATEGORY : VASCULAR INTERVENTION

TITLE

Genicular artery embolization due to osteoarthritis of knee joint: Long-term result

BACKGROUND

Genicular artery embolization (GAE) is a minimally invasive treatment to reduce pain in patients with knee osteoarthritis (OA). This study aimed to study the efficacy in patients with knee osteoarthritis.

METHODS

Ten patients with mild to severe knee OA were enrolled in this retrospective study between November 2021 and August 2022. Baseline pain with visual analog scale (VAS), Wong-Baker Faces pain scale, and symptoms with Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) were evaluated for each patient at baseline. The outcome was assessed on the first day, 3 months, 6 months, and one year after the embolization using VAS, Wong-Baker Faces pain scale, and WOMAC score respectively.

RESULT

The median age was 60 years old ranged 51 – 75 years old. The median BMI was 29.15 kg/m² (interquartile range (IQR), 24.12 – 31.32 kg/m²). There was a significant improvement in the pain and symptoms after the procedure and 1 month, 3 months, 6 months, and one year compared with scores obtained before the embolization (VAS, $p < 0.004$; Wong-Baker Faces pain scale, $p < 0.001$; WOMAC, $p < 0.001$). The VAS score was found with 6.5 (IQR, 5.25 – 8.25) while the Wong-Baker Faces pain scale was 3 (IQR, 3.0 – 4.0) and WOMAC was 62.0 (IQR, 45.0 – 69.75) before the procedure. After the procedure, the genicular artery embolization significantly improved the pain and symptom scores as follows: VAS with 3 (IQR, 1.75 – 4.5), Wong-Baker Faces pain scale with 2 (IQR, 1 - 2) and WOMAC with 19.5 (IQR, 11.75 – 31.75). Even though, the results were slightly decreased from 1 month to 1 year as follows: VAS from 2 (IQR, 1 – 3.75) to 2 (IQR, 1.75 – 4.25), Wong-Baker Faces pain scale from 1 (IQR, 1 – 2.25) to 2 (IQR, 1.75 - 3), WOMAC from 27 (IQR, 9 – 37.5) to 27 (IQR, 13.75 – 36.25), we found that significant reduction of pain and symptoms occurred at 6 months after the procedure. No major adverse events or complications occurred in all patients.

CONCLUSIONS

Genicular artery embolization is a safe procedure and significantly improves the pain and symptoms in patients with knee osteoarthritis.

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