



RADIOFREQUENCY ABLATION AS AN ALTERNATIVE OPTION FOR CHRONIC KNEE PAIN DUE TO AVASCULAR NECROSIS

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Introduction

- Radiofrequency Ablation (RFA) is a procedure recommended for patients with chronic knee pain, refractory to conservative management.
- The procedure targets sensory innervation (genicular nerves) of the knee, avoiding the joint space.
- While it has been widely used in cases of osteoarthritis, the impact of RFA on pain caused by avascular necrosis of the hip and knee has not been reported.

Case presentation

Case 1

- A 32-year-old female developed referred chronic knee pain after avascular necrosis of the posterior left femoral head.
- The patient was initially managed with right total hip arthroplasty, followed by left hip decompression, and bilateral knee decompressions.
- RFA was performed to target refractory pain at 80 °C for 105 seconds.
- The RFA probe was initially positioned beneath and lateral to the femoral tendon and then moved to the superomedial and superolateral aspects of the femoral condyle.



Case 2

- A 39-year-old woman developed chronic knee pain due to prior avascular necrosis of the knee.
- The patient was managed with bilateral knee decompressions as well as iliac crest bone marrow aspiration with some initial short-lasting pain relief.
- Left knee pain was later reported as persistent and severe (8/10 on a numeric pain rating scale) and RFA was performed at 60 °C for 150 seconds in the genicular nerves.



Discussion

- Avascular necrosis of the knee and hip is a devastating disease that could lead to limiting and painful arthritis of the affected joint and referred pain to distal joints.
- Total knee arthroplasty is a common treatment for refractory and limiting knee pain, but this approach may not be possible or desired by many patients.

Conclusion

RFA of the knee or hip should be considered as a reasonable treatment option to provide adequate pain control in cases of avascular necrosis.