

Superficial Scar Pain Presenting as Refractory Joint Pain: A Case Report

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Background

Keloid scars are thick dermal scar tissues whose overgrowth of collagen over time causes the tissue to extend past the original wound.¹ The development of keloid scars can vary widely, from a few weeks to decades after the injury.¹ In addition to cosmetic concerns, those afflicted may experience pain associated with the scar.²

Patients do not necessarily always associate the pain produced by scars with the body area where the scars are located.³ For example, an ankle scar can manifest itself as something as drastic as back pain.³ What was perceived as joint pain may also be caused by dermal scars, such as keloid scar. Seemingly benign scars can interfere with the normal functions of the soft tissue surrounding a joint.⁴ Therefore, movement involving the joint, muscles, and skin affected by the scar causes pain.⁴ Once diagnosed, there are multiple treatments for scar pain that may be considered (figure 1).

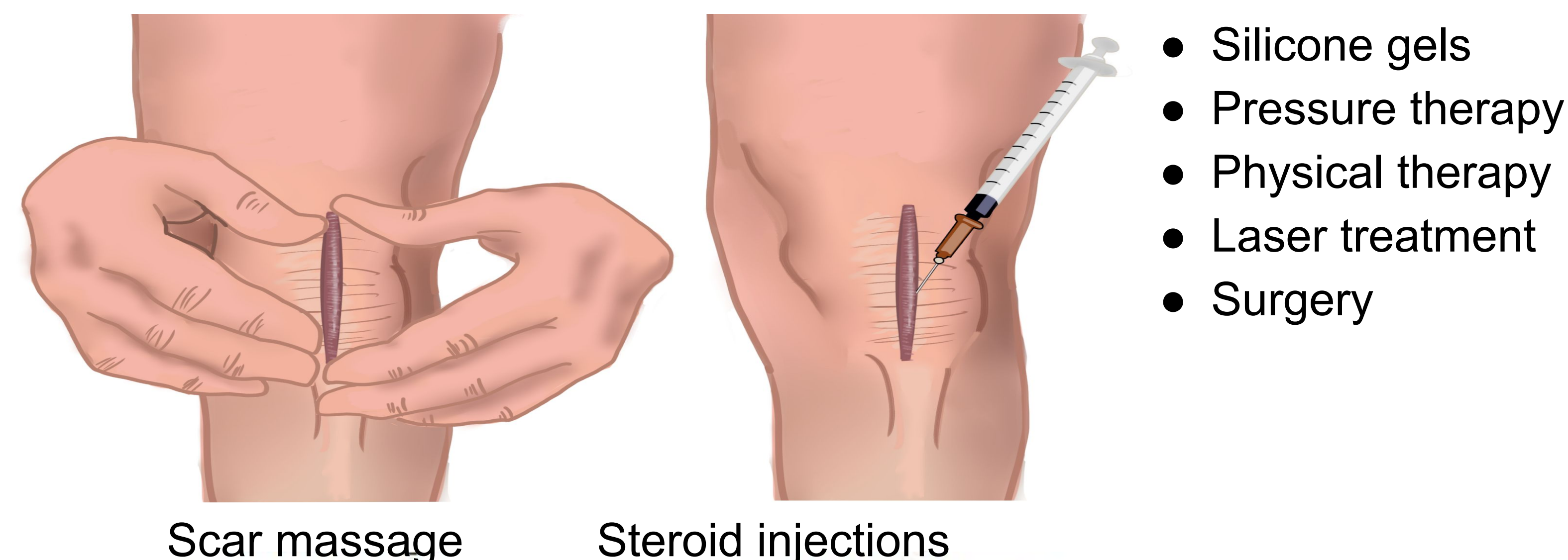


Figure 1. Treatments of scar pain

Case Diagnosis

A 63-year-old female with refractory right knee pain 5 months after total knee arthroplasty, and a 42-year-old male with persistent right ankle pain 5 years after ankle surgery.

Case Description

The 63-year-old female presented with severe, unrelenting right knee pain since her total knee arthroplasty 5 months ago. The pain was described as aching and burning and was worse with knee flexion, walking, and sitting. There were no noted surgical complications or hardware malfunction. She had tried various treatments including topical creams, NSAIDs, Gabapentin, opioids, physical therapy, and even aquatherapy without improvement. Her exam was significant for the presence of a hard, keloid-forming scar that was tender to palpation. The knee joint exam was normal without increased warmth, effusion, or erythema. She initially requested for an increase in her opioid medication. However, since the joint pain was reproduced with skin traction without joint movement, the pain was treated with local steroid injection to the scar, which reduced the pain by more than 90%.

Similarly, the 42-year-old male presented with severe, persistent right ankle pain since his ankle surgery 5 years ago, exacerbated by any ankle movement. He had also failed various treatment modalities. His pain was managed with steroid injections to the scars over the medial and lateral malleolus, which provided 60% pain relief.

Discussion

These two patients presented with chronic refractory joint pain that persisted despite traditional pain management utilizing medications and therapies. Pain due to scars can mimic joint pain, making the diagnosis challenging (Figure 2).^{5,6} Both patients demonstrated improvement in their symptoms with scar management.

Conclusion

Pain from superficial scars may mask refractory joint pain months to years after surgeries and should be considered as part of the pain evaluation.

INTRINSIC CAUSES	EXTRINSIC CAUSES
Infection	Neurological spine disorders
Instability	Vascular
Malalignment	Pes anserine bursitis
Soft tissue impingement	Tendinopathy
Aseptic loosening	Heterotopic ossification
Arthrofibrosis	Peri-prosthetic fracture
	Psychological disorder
	Scar pain

Figure 2. Possible causes of joint pain after surgery

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