



Case Description

- 63-year-old male with history of sciatica presented with a one-week history of right lower leg pain, difficulty walking, and numbness in his foot after hiking
- A small painful mass has developed over the past week prior to presentation to PM&R clinic

Examination

- Decreased sensation to pinprick and light touch on the dorsal aspect of his right foot with limitations in dorsiflexion or eversion
- Non-compressible visible solid mass near the head of the fibula that reproduced pain on palpation

Imaging

- Initial diagnostic ultrasound revealed a 3.7 cm hypoechoic cyst compressing the fibular nerve. Follow up right knee MRI showed a cyst (Figure 1) that appeared to branch from the nearby popliteal vein. Based on this location, the cyst was believed to be a popliteal varix.
- Pre-treatment doppler ultrasound showed no flow across the cyst (Figure 2).
- Based on these findings, a new diagnosis of intraneural ganglion cyst was made

Images

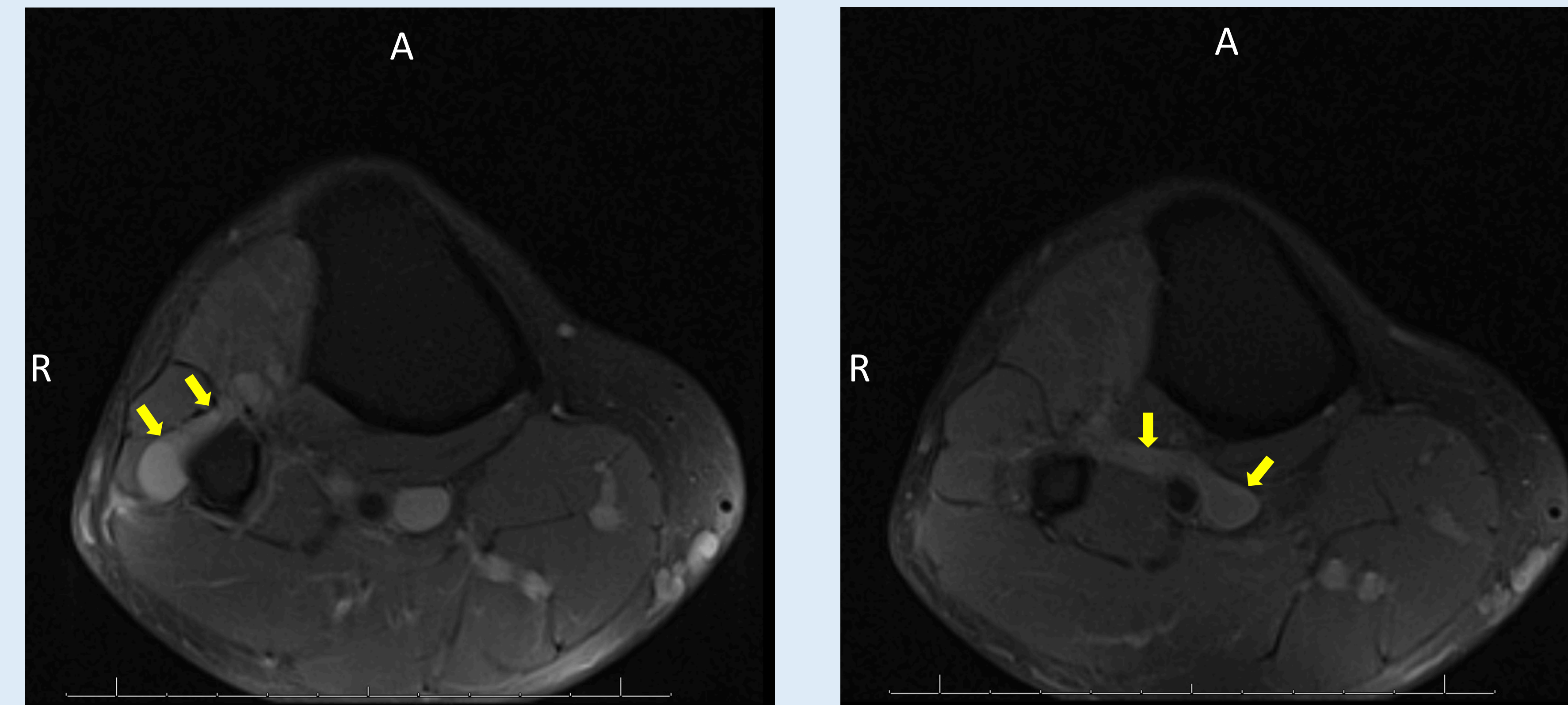


Figure 1

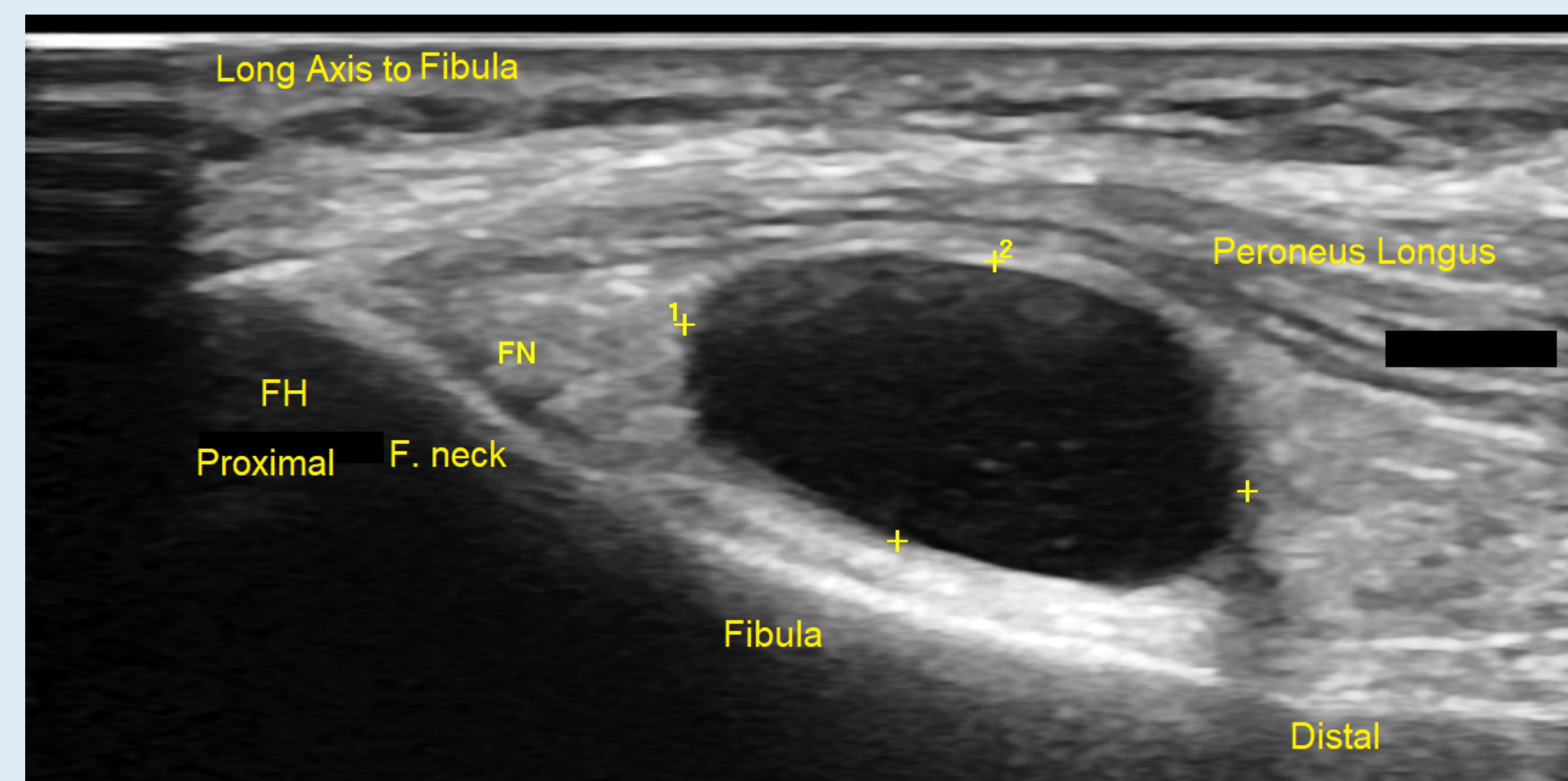


Figure 2

Results

- The patient underwent surgical removal of the cyst to decompress the nerve and alleviate symptoms 1 month after diagnosis
- Anterior and posterior septums compressing the fibular nerve were identified and dissected out completely.
- A 4 x 4 in human allograft was used to wrap the nerve and provide a barrier against development of future adhesions
- Post op-follow up demonstrated improvement in both examination and symptomatically, with patient continuing physical therapy

Discussion

- Intraneural ganglion cysts are mucinous lesions formed in peripheral nerves and can lead to signs and symptoms of peripheral neuropathy. A large majority of them (60%) originate from the fibular nerve near the fibular head. The origin of these cysts is thought to be from a capsular defect of the neighboring joint allowing for cyst formation.
- This case is significant for demonstrating a few key points:
 - Ultrasound plus doppler can be very helpful in delineating the origin of cystic lesions
 - Superficial cysts may not always be what they seem, so it is essential to exercise caution before aspirating.