Interesting Case Series

Felon of the Thumb

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DESCRIPTION

A woman presented with a chief complaint of pain in her thumb and hand and tenderness on the radial side of her forearm to the emergency department. Five days prior she was diagnosed with a felon of the thumb. It was incised and drained at that time, and the patient was sent home with oral antibiotics.
QUESTIONS

1. What is the appropriate initial management of a felon?
2. What sequela likely developed in this patient?
3. What are the 4 classic signs associated with this pathological state?
4. What is the most appropriate treatment now?
DISCUSSION

Management of this patient upon the initial presentation to the emergency department was likely inadequate. The volar incision noted on the thumb likely drained a significant amount of pus, but if all fascial compartments were not adequately drained, the felon is likely to persist. A radial incision would have accessed more fascial compartments for more complete drainage and avoided the more volarly located neurovascular bundles and the contact point of the thumb. After drainage was performed, a gauze wick may be left in the incision to facilitate continued drainage. Antibiotics should be prescribed to cover gram-positive cocci.

This patient has likely developed flexor tenosynovitis of the thumb because of inadequate management of the original felon. The infectious agent in a felon (commonly *Staphylococcus aureus*) can penetrate dorsally to the flexor sheath where it can subsequently spread. There are 4 cardinal signs of flexor tenosynovitis (Kanaval’s): fusiform swelling, semiflexed posturing, pain with passive extension, and tenderness along the flexor sheath. All 4 of these are evident in the patient presented in this case. This along with the history of a felon strongly suggests flexor tenosynovitis.
The most appropriate treatment at this time is surgical irrigation of the tendon sheath. This can be a surgical emergency due to the possibility of the infection destroying the tendon within hours. Limited incisions are made with placement determined by the proximal involvement of the flexor sheath, usually proximal to the A1 pulley and at the level of the DIP, distal to the A5 pulley. Irrigation should be directed distally through the proximal incision to avoid spreading the infection proximally. Mechanical irrigation is the most important factor for clearing the infection. A temporary irrigation device may be implanted at the time of surgery to facilitate postoperative irrigation. Cultures of the purulent drainage should be taken to ensure proper antibiotic selection.

REFERENCES