

Infections

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- Paronychia Nail bed infection is the most common hand infection (Figure 38.45). After initial inflammation, pus accumulates beside and sometimes under the nail. It is best treated with incision, drainage and appropriate antibiotic therapy . This is occasionally facilitated by partial nail removal to allow full drainage of the collection. Felon A felon is an abscess within the specialised fibrous septae of the fingertip pulp. It causes intense pain and may lead to terminal phalangeal osteomyelitis. Incision and drainage through the midline of the pulp of the finger in the location of maximal swelling, followed by intravenous antibiotics, are recommended. Flexor tendon sheath infection Flexor tendon sheath infections present with Kanavel's cardinal signs: /uni25CF the affected finger is held in flexion; /uni25CF there is uniform swelling over the tendon and digit; /uni25CF tender to the touch; /uni25CF pain on passive extension of the finger. Flexor sheath anatomy is important to understand, since infection within flexors 2 (index) to 4 (ring) is usually confined to that finger, whereas infections arising in the sheath of the thumb or little finger may extend via the radial and ulnar bursae, respectively , towards the wrist. Treatment is by open irrigation throughout the tendon sheath course; small incisions are made at the proximal and distal ends of the affected sheath and the sheath is washed out, delivering irrigation via a small nasogastric or feeding tube. The whole finger may require opening if the viability of the digit is threatened. This is followed by what is often an extended course of intravenous antibiotics. If infection is untreated tendon adhesions and necrosis occur. Infection can spread proximally , damaging the whole hand. Summary box 38.12 Treatment of hand infections /uni25CF /uni25CF /uni25CF Allen B Kanavel , 1874–1938, Professor of Surgery , Northwestern University Medical School and President of the American College of Surgeons (1931–1932). Boutonnière is French for 'buttonhole'. Oliver J Vaughan-Jackson , 1907–2003, consultant orthopaedic surgeon, The London Hospital, London, UK, and a specialist in hand surgery . Tuberculosis may involve the tenosynovium, joints or bone. The most dramatic form is a compound palmar ganglion, with synovial swelling proximal and distal to the transverse carpal ligament, occasionally causing symptoms of carpal tunnel syndrome. The diagnosis is made by taking a biopsy . Synovectomy should be performed and the patient treated with the appropriate antibiotics. Deep palmar infections These infections occur in the palm but may be limited to a web space. The whole hand becomes swollen and tender as pus collects on either side of the septum. Treatment is incision and drainage with thorough washout of the wound. It is important that all deep spaces are opened: incisions on both the dorsal and volar aspects of the hand may be needed. If in doubt, an ultrasound scan or MRI can delineate the extent of the collections within the deep palmar spaces.

Figure 38.45 Acute paronychia. Elevate and splint in a functional position and give intravenous antibiotics Surgical drainage should include tendon sheath irrigation Early mobilisation

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