

CASE DESCRIPTION

Age/Gender: 68-year-old male

Presentation diagnosis: Skin tear at SCS pocket, five months post-implantation

Indication for SCS: Diabetic neuropathy providing substantial pain relief

PMH: Cirrhosis from nonalcoholic steatohepatitis, type 2 diabetes mellitus, hypertension, atrial fibrillation, myasthenia gravis, carcinoid syndrome;

HPI:

- Patient experienced a fall during while hunting, which led to a wound that gradually opened over time. Presented with bloody and clear drainage but otherwise asymptomatic.
- Physical examination revealed an exposed SCS generator at the right flank incision site, with mild erythema and minimal drainage (Figures 1 and 2).
- **Lab tests:** Elevated C-reactive protein, back swab cultures cultures were collected and he went through urgent device explantation.
- **Treatment:** Cefalexin 500mg Q6h for 14 days (positive cultures for gram positive bacteria). Pain intensity (8/10) compared to the pre-explantation level (2/10), localized on his feet and lower back.
- Twelve-weeks after explantation, he received a new SCS, with the pocket placed on the left side.
- **Two-week follow-up:** He reported a 50-60% improvement in pain, incision site showed no complications.



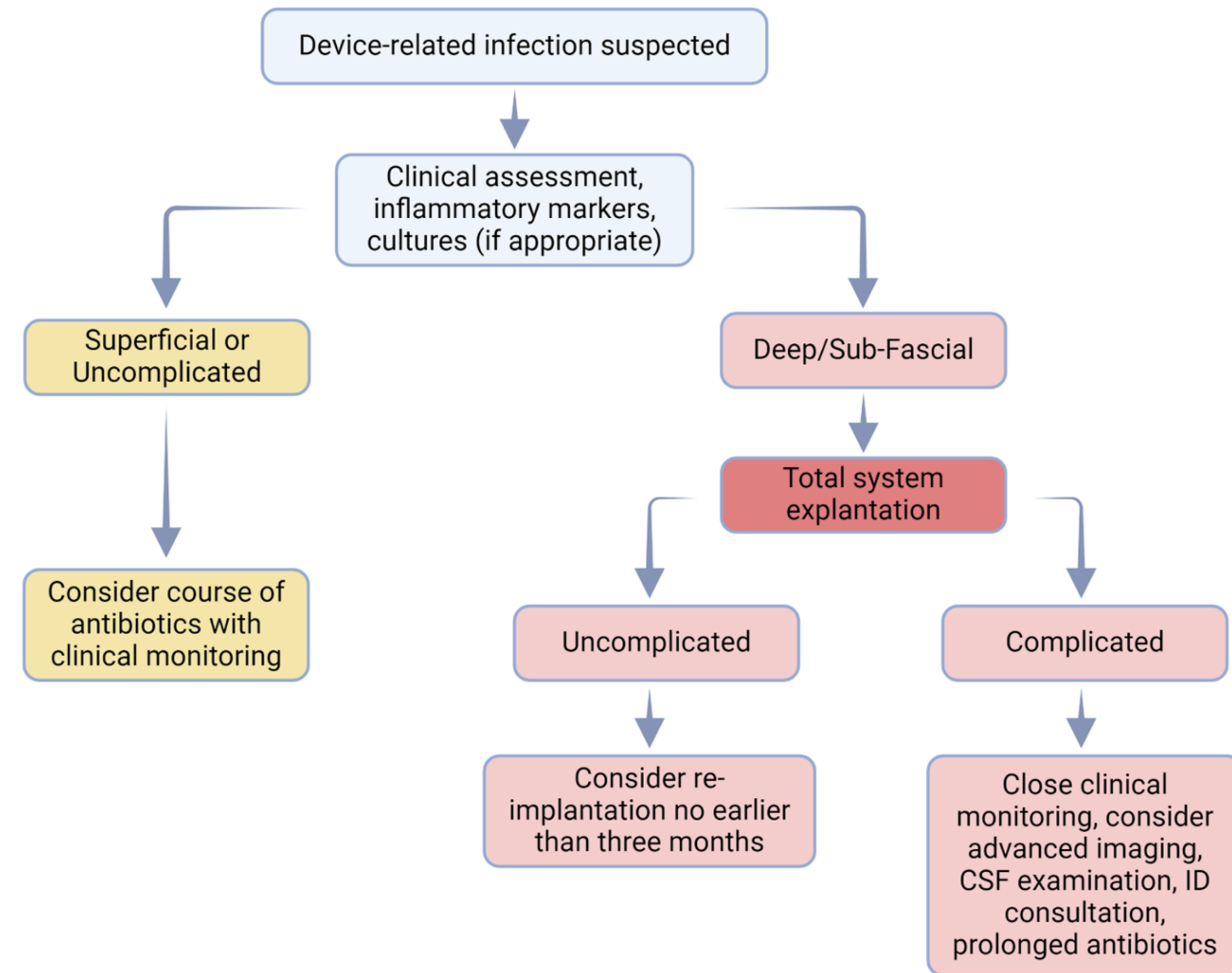
Figure 1: Wound showing device exposure



Figure 2: Wound showing coil exposure

DISCUSSION

Figure 3: Assessment of suspected device-related infection



Indications for SCS Removal

- Inadequate pain relief
- Active infection
- Skin opening near the device

Infection Rates and Symptoms

- Infection rates for SCS: 2.4% to 3.1%
- Symptoms: erythema, drainage, fever, swelling, localized pain
- Confirmation: often through positive cultures

Evaluation of Suspected SCS Infection

- **Physical Examination**
- **Laboratory Tests** (CBC, ESR, C Protein Levels, Cultures)
- **CNS Infection Assessment** (Lumbar puncture if indicated)

DISCUSSION

Management of Infections

- **Superficial Infections:** (limited to the skin, managed with a short course of oral antibiotics targeting Gram-positive bacteria, close monitoring for complications).
- **Deep Infections:** (occur below the fascia and require device explantation, extended antibiotic therapy and thorough wound irrigation). Wound closure using non-braided sutures and materials like Vicryl and staples to reduce biofilm formation.

Consultation and Reimplantation

- Consultation with Infectious Disease team for tailored antibiotic therapy and additional interventions.
- Reimplantation considered after at least 12 weeks for tissue recovery.

Impact of Discontinuing Pain Management

- Discontinuation can severely affect patient quality of life and increase overall morbidity.
- In this case, despite effective pain control from the SCS, risks from the skin tear required explantation.
- Successful reimplantation allowed the patient to resume treatment effectively.

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