SOFT TISSUE LESION AFTER INJECTION OF HYDROCARBONS

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Objective

While there is an experience with the pulmonary and central nervous system manifestations of inhaled and ingested hydrocarbon toxicity, very few reports of soft tissue petroleum distillate injection were published. Therefore we present an illustrative case.

A) right forearm

B) left forearm

C) right knee

Figure 1. Cutaneous findings 3 days after subcutaneous injection of hydrocarbons into the right (A) and left (B) forearm and the right knee (C).

Case Report

Patient: **17-year-old man**

A 17-year-old male abuser of cannabis, amphetamine, methamphetamine, and cocaine injected himself lubricating oil into the subcutaneous soft tissue of both forearms and the right knee (Fig. 1) after drug consumption. After experiencing three days pain while walking he presented to the emergency department.

Clinical features:

- **Both forearms and right knee**:
  Physical examination showed an abscess in both forearms (the whole left forearm up to elbow and the right forearm at a length of 15 cm) and in the right knee (with a extension of 10 cm).
- **Laboratory findings**:
  Body temperature was 38.2 °C. Laboratory findings were:
  Hb 7.9 mmol/L, Hct 0.38, thrombocytes 251 G/L, and leucocytes 12.2 G/L. In urine amphetamine, cannabinoides, and methamphetamine were detected.

Treatment and Hospital Course

1. Already at the day of presentation the abscesses were opened and the necrotic areas with beginning phlegmonous inflammation were excised.

2. Coagulase-negative staphylococcus aureus was found in the detritus by microscopic preparation. The patient received cefotiam and metronidazole intravenously over 10 days and was analgosedated.

3. Wound treatment was performed by wet wound dressing and lavage. However, wound revision of the left elbow and the right knee with debridement of further necrotic material was necessary after 2 and 4 days.

4. Eleven days after admission a final wound debridement was made. The borders of wound of the left forearm remained dehiscent but were without irritation at the subsequent controls. The patient was discharged after 17 days for further psychological treatment.

Optimal Timepoint of Surgical Intervention ?

The optimal timepoint of surgical intervention is discussed controversially in literature:

1. Some authors recommend surgical intervention if the patient fails to respond to elevation and splinting of the affected extremity (1, 2).

2. The policy of other authors is to resort to immediate, wide surgical exploration of the affected area, followed by daily dressings for monitoring of the spread of necrosis (1).

Conclusion

1. Symptoms and time course observed in our case report are in accordance with the few case reports in the literature (1, 2).

2. Soft tissue injection of hydrocarbons can result in severe phlegmonous inflammation with necrosis and can afford large wound debridement.

3. Results can be complicated by healing by second intention.

4. The optimum point in time of excision is discussed controversially.

References:

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