



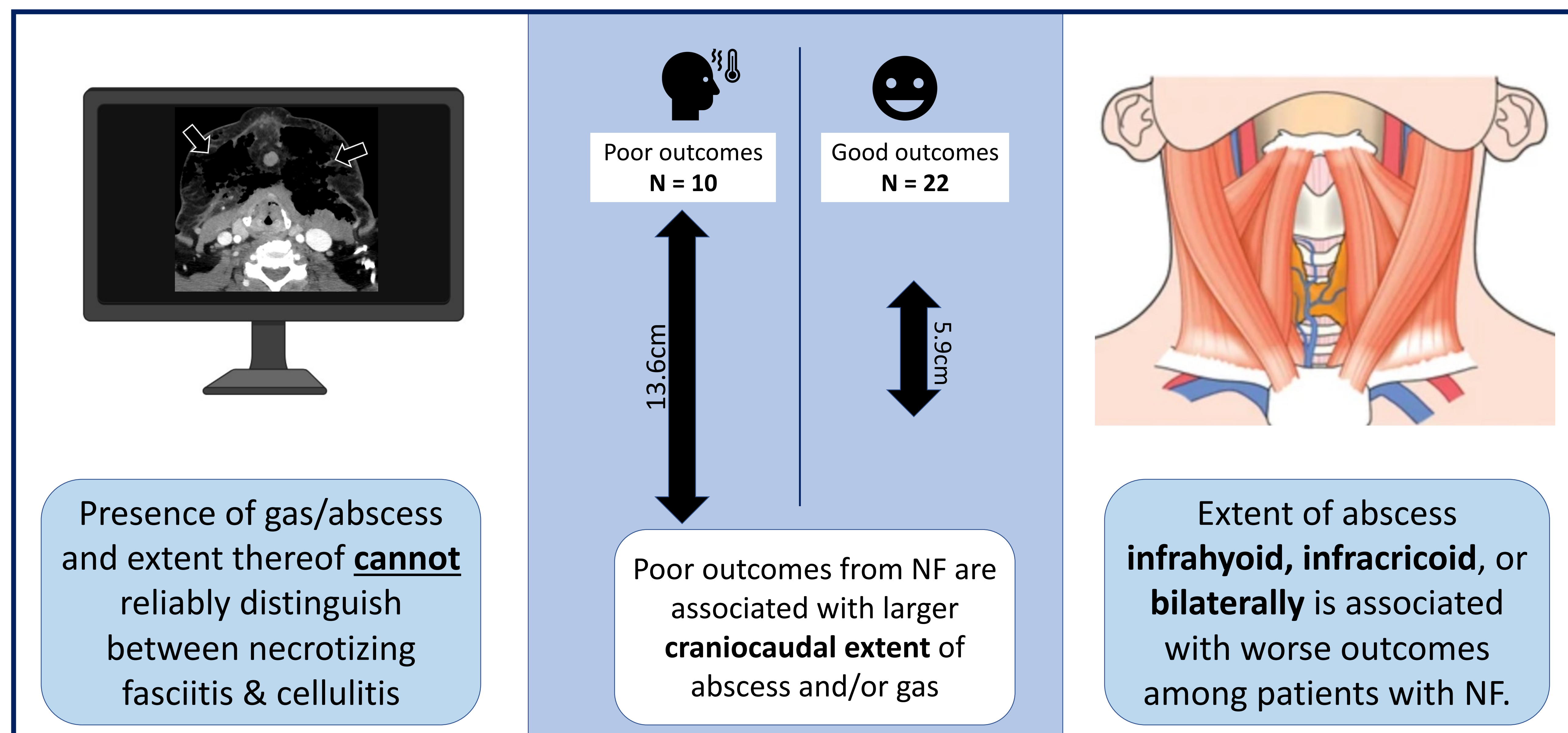
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# Radiographic Features Associated with Poor Outcomes in Head and Neck Necrotizing Fasciitis

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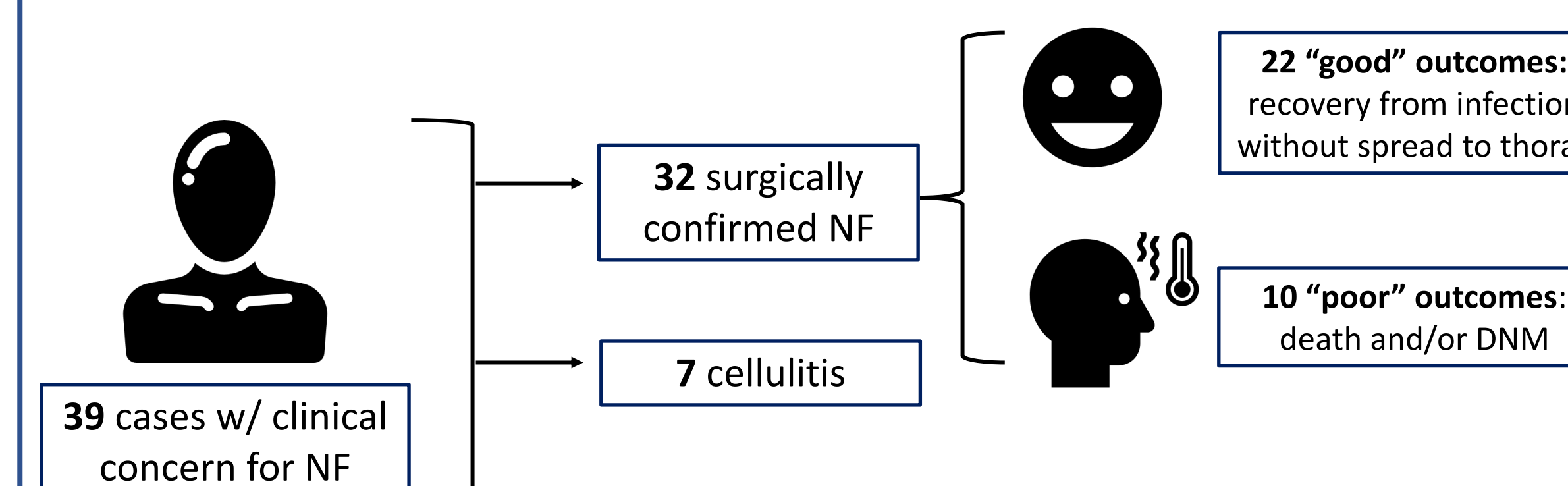


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## Introduction & Methods

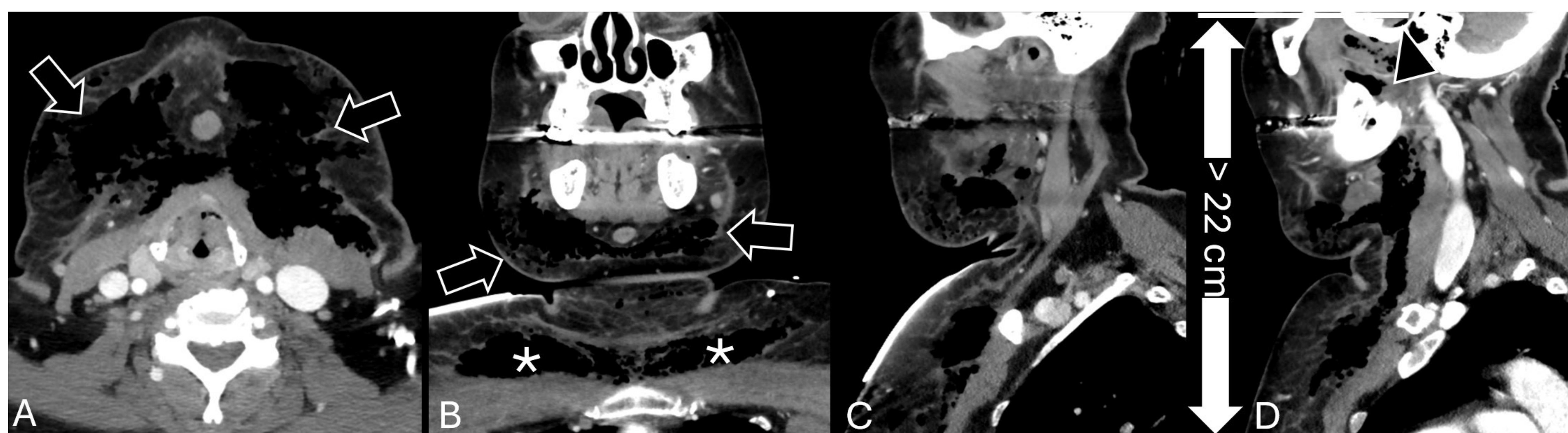
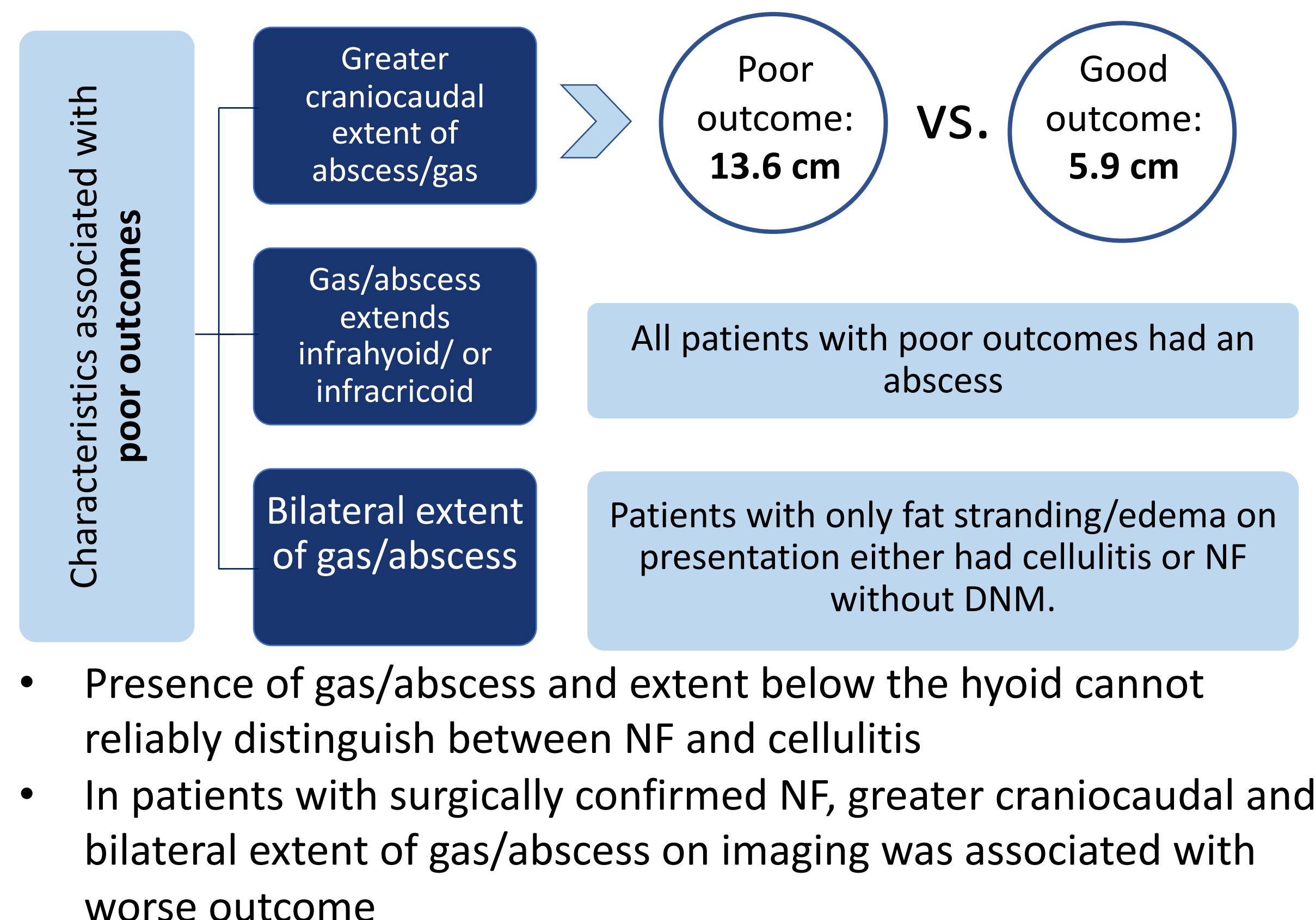
- Necrotizing fasciitis (NF) of the head and neck (HN) is a rapidly progressive infection with risk for descending necrotizing mediastinitis (DNM)
- Radiographic features of HN NF overlap with cellulitis, complicating diagnosis and prognosis at presentation
- Retrospective cohort study



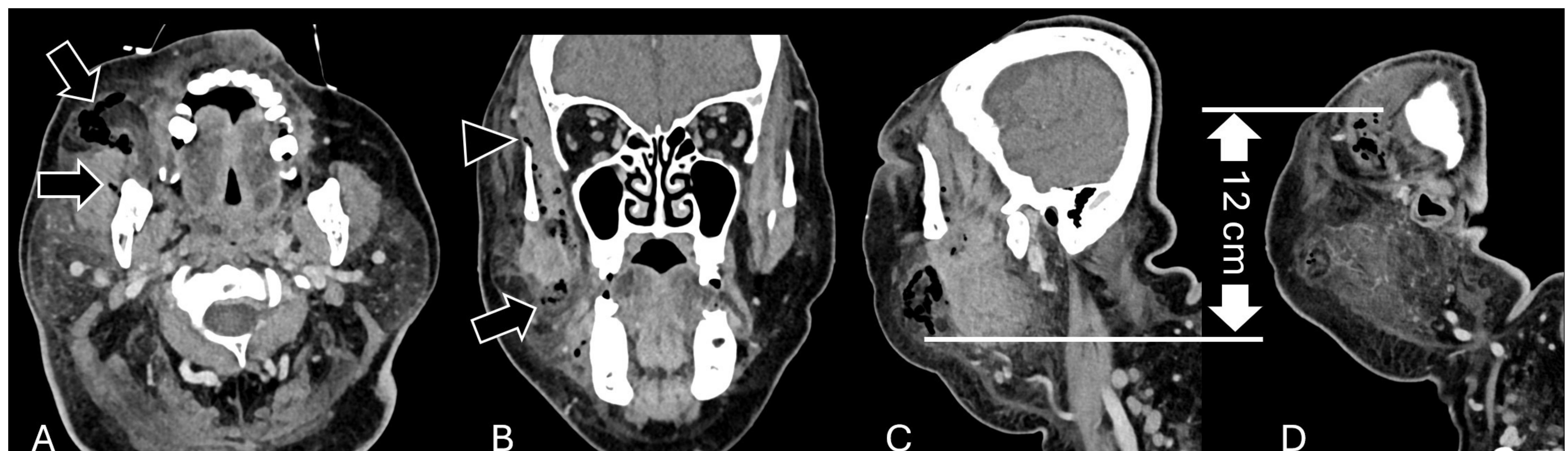
- Imaging review conducted by a neuroradiologist to assess for prognostic features

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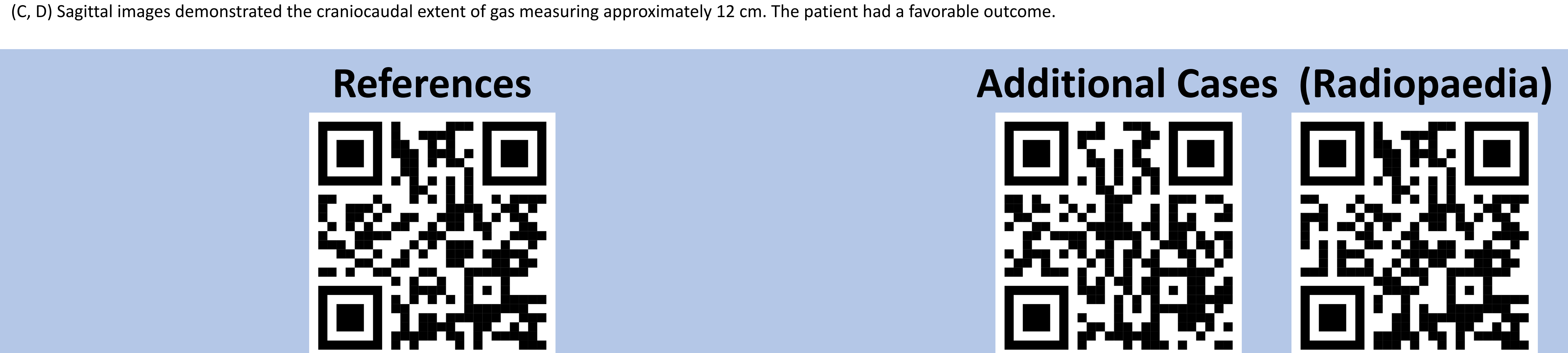
## Results & Conclusions



**Fig. 1:** Necrotizing fasciitis with poor outcome. A 63-year-old female presented with neck swelling four days after third molar extraction. Contrast-enhanced CT of the neck soft tissues in (A) axial and (B) coronal planes demonstrated extensive soft tissue gas in the bilateral neck (arrows) both superior and inferior to the hyoid bone and cricoid cartilage and extending into the anterior chest soft tissues (asterisks). (C, D) Sagittal images demonstrated craniocaudal extent of gas measuring > 22 cm with intracranial extension (arrowhead) through a defect in the mandibular fossa. Though there was no extension of gas or abscess into the mediastinum at presentation, outcome was poor with patient demise despite multiple surgical debridements and intravenous antibiotics.



**Fig. 2:** Necrotizing fasciitis with good outcome (1). A 30-year-old male presented with right face and neck edema and erythema. Contrast-enhanced CT of the neck soft tissues in (A) axial and (B) coronal planes demonstrated extensive stranding/edema in the superficial and deep neck soft tissues (arrows) and skin thickening (arrowhead). However, there was no organized fluid collection/abscess or soft tissue gas on imaging. The patient had a favorable outcome. (C, D) Sagittal images demonstrated the craniocaudal extent of gas measuring approximately 12 cm. The patient had a favorable outcome.



**Fig. 3:** Necrotizing fasciitis with good outcome (2). A 77-year-old female presented with progressive neck swelling. Contrast-enhanced CT of the neck soft tissues in (A) axial and (B) coronal planes demonstrated soft tissue gas in the right buccal space and infratemporal fossa (arrows) extending into the temporal fossa (arrowhead). The gas did not extend inferior to the hyoid bone or cricoid cartilage. (C, D) Sagittal images demonstrated the craniocaudal extent of gas measuring approximately 12 cm. The patient had a favorable outcome.

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## References



## Additional Cases (Radiopaedia)

