

<b>Case</b>	(257) No gas under the surface, lessons learned. a case of type 2 necrotizing fasciitis.
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## CASE PRESENTATION

39 years old female presents to the emergency department referring sharp pain after minor trauma in her right upper flank. Initially physical physical examination is unremarkable and radiography shows no signs of fracture. She is discharged with analgesics but continues to worsen and returns with signs of haemodynamic instability and mild loss of hemoglobin. Initial non contrast chest CT (images A, B) is performed to evaluate for underlying traumatic complications such as hemothorax, which are ruled out.

The patient continues to decay requiring admission into the intensive care unit. In the following 8 hours the skin in the right flank takes on a bluish tint and scattered blisters arise. A second contrast enhanced body CT is requested (images C, D) confirming extension into the abdomen along fasciae and intermuscular planes, with asymmetric muscular enlargement. Upon review enlargement of pectoralis muscle is also noted in the first examination. Also to be noticed is the absence of gas in soft tissue in both examinations.

The patient is subsequently taken into the operating room under suspicion for aggressive soft tissue infection (necrotizing fasciitis), confirmed with direct visualization of Gram positive Cocci, requiring extensive debridement and intensive fluid resuscitation and vasoactive drugs.

## DISCUSSION

Necrotizing fasciitis (NF) is a life threatening infection rapidly extending along fasciae planes. It presents typically with disproportionate pain for the scarce skin manifestations, as well as systemic signs and symptoms of sepsis (high fever, hypotension, organ failure...).

According to the microbiology NF can be classified into type 1, polymicrobial with a mixture of aerobic and anaerobic gas producing organisms and preferential involvement of perineum and trunk, and type 2 or monobacterial generally caused by Gram positive and more frequently found in the extremities.

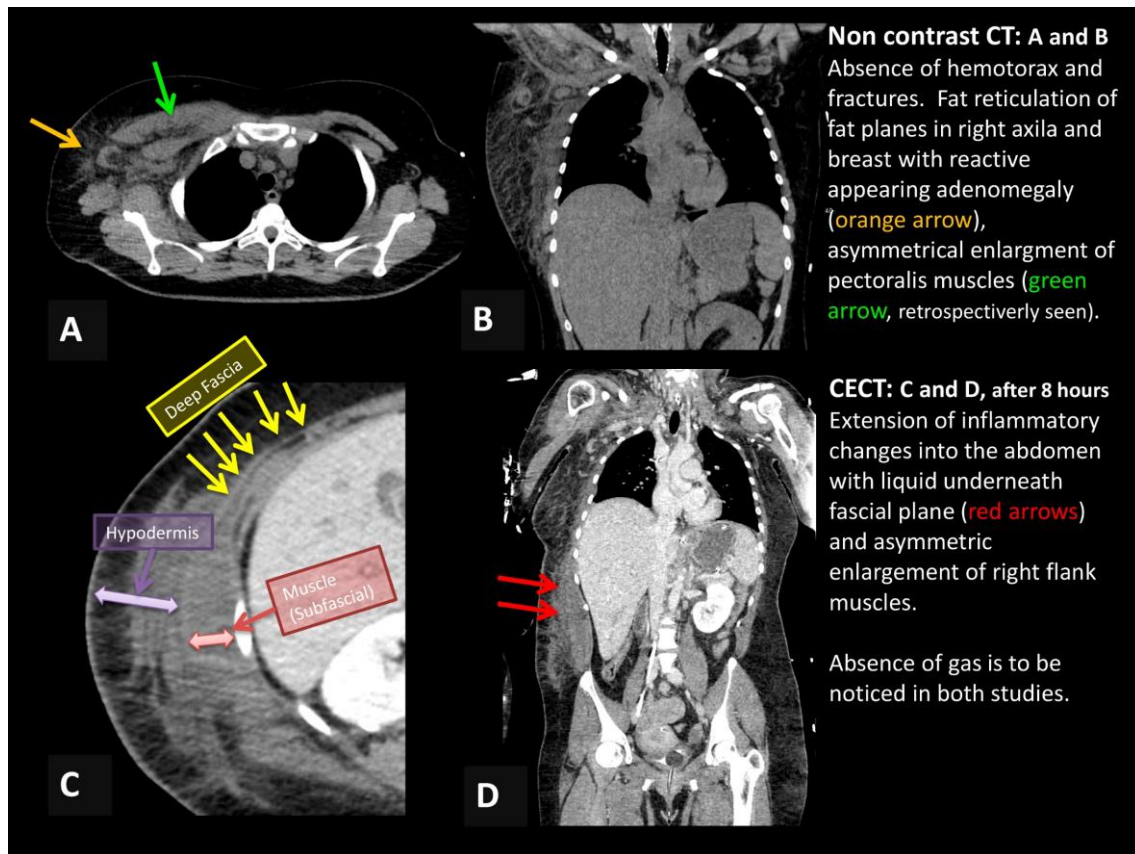
The diagnosis requires strong clinical suspicion and CT is the election technique to evaluate its extent and signs of fasciae involvement (fasciae distribution, asymmetric fasciae enlargement, muscular enlargement, liquid in muscular compartments). The presence of gas, although common, is not specific and its absence does not preclude the diagnosis.

Furthermore, if clinical suspicion remains, even with normal findings on CT, surgery must be performed. Due to the muscle destruction derived from this pathology patients are at

risk for rhabdomyolysis and renal failure, this fact must be considered upon administration of iodinated contrast.

## CONCLUSION

Necrotizing fasciitis is a serious pathology that requires clinical suspicion for its diagnosis. Imaging can be performed to evaluate for its extent but it should not preclude or delay therapy.



## BIBLIOGRAPHY

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