

Non-Clostridial Gas Gangrene Without Wound Caused By *Escherichia Coli*: A Case Report

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INTRODUCTION

Gas gangrene is characterized by muscular necrosis and gas formation and is most commonly caused by *Clostridium perfringens* bacterium. Non-clostridial gas gangrene is a relatively uncommon¹. This article describes a rare case of non-clostridial gas gangrene of a diabetic lower limb without wound.

CASE REPORT

A 30-year-old female with type II diabetes mellitus presented with right lower limb swelling and pain. On examination, patient was found to be tachycardic, blood pressure of 140/69 and febrile. No wound was seen. The entire right lower limb was tender and was having crepitation. Laboratory investigation of the patient showed haemoglobin of 7.8g/dL, total white blood cell count of 32900, platelet count of 603, C-reactive protein of 304.06 mg/L, erythrocyte sedimentation rate of 115mm/hr. X-ray of the right tibia/fibula and right femur showed presence of gas extending from the calf up to the hip joint. The patient underwent extensive wound debridement of the right lower limb. Intra-operative findings noted pus from proximal lateral shin to medial thigh. Unhealthy fascia and necrotic tissue was also detected. Pus, tissue and swab culture sent intra-operatively showed a heavy growth of *Escherichia coli* sensitive to Tazocin (piperacillin and tazobactam) which was started upon diagnosis.

Figure 1: X-ray right femur and right tibia

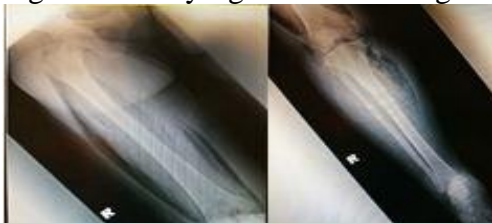


Figure 2: Image of right lower limb



DISCUSSION

Gas gangrene caused by non-clostridial organism is quite rare in clinical practice. Non-traumatic infection may occur, which is a common feature in diabetes. Symptoms like local pain and swelling are less marked compared to clostridial gas gangrene³. Signs of systemic toxicity develop rapidly, and many patients present with septic shock at the time of initial presentation. Gas is a prominent feature detected clinically or radiologically. Surgical debridement of all the gangrenous tissues, along with broad-spectrum antibiotics, is crucial in preventing the extension of the infection.

CONCLUSION

Non-clostridial gas gangrene is rarely mentioned in literature and its spontaneous occurrence in diabetic lower limbs is rare. Urgent radical amputation is required to save the patient's life².

REFERENCES

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