SYMMETRICAL PERIPHERAL GANGRENE AFTER SEPSIS TREATMENT WITH INOTROPES: 2 CASES

P. Martínez Galarza 1,2, A. Toro Aguilera,1, V. Arcediano,3, H. Alfaro,4, M. Pascasio4

1 Hand and wrist unit, Fundación Sanitaria Mollet, Barcelona, Spain; 2 Vascular Surgery Department, Fundación Sanitaria Mollet, Barcelona, Spain; 3 Socio-Sanitary Hospital, Fundación Sanitaria Mollet, Barcelona, Spain; 4 Physical Therapy Department, Fundación Sanitaria Mollet, Barcelona, Spain

INTRODUCTION

Symmetrical peripheral gangrene (SPG) is a rare but severe complication of disseminated intravascular coagulation (DIC) that frequently accompanies sepsis. About half of the patients who survive require amputation of the affected limb.

There are different mechanisms involving dry gangrene evolution after septic shock:
- disseminated intravascular coagulation (DIC): present in 85% cases
- invasion of the vascular wall by microorganisms
- vasculitis mediated by immune complexes
- septic embolism

The use of vasopressors simultaneously involves the creation of spasms that affect the vessels and these aggravate microcirculation problems.

METHODS

- We present two patients who suffered bilateral limb gangrene after septic shock treatment.
- FIRST CASE: 73 years old lady type 2 diabetes insulin-dependent with a severe peripheral neuropathy and nephropathy, allergic to penicillin, who suffered a septic shock after and acute 7mm obstructive pyelonephritis. After pigtail ureteral stent placement and imipenem/linezolid intravenous treatment the patient didn’t improve and evolved to a multorgan collapse because E.coli bacteraemia. She was treated by noradrenaline up to 14mcg/Kg/min, dylasis and mechanical ventilation. The patient survived but unfortunately presented a symmetrical peripheral gangrene that involved 4 limbs. Bylateral Transtibial short below knee amputation was made and after four weeks bilateral wrist disarticulation was performed. Patient died six month after due to recurrent pyelonephritis.

- SECOND CASE: 52 years old lady with a Chron disease, who also suffered a septic shock after an intestinal resection surgery. After a suture failure and a polymicrobial infection she developed a septicemia and was started on broad-spectrum antibiotics, dopamine and noradrenaline in the medical intensive care unit. A peripheral four limbs dry gangrene was established. Below knee amputation of both legs was performed and after four weeks she had a transmetacarpal amputation of left hand and multidigital amputation of right hand. She is now waiting for four limbs prostheses.

CONCLUSIONS

SPG is an extremely rare side effect from inotropic use in a septic shock. A multidisciplinary approach has to be done to manage this devastating situation.

Early recognition of SPG and its underlying conditions can have profound impact on the management of the condition and its final outcome.

Four limb amputation is a reasonable treatment once the gangrene is well delimited and leaves the door open to implant prostheses in a future if patient conditions permit.

BIBLIOGRAPHY


