

**IATROGENIC BURNS CAUSED BY THE FORCED AIR OF A HEATING BLANKET: A  
CASE REPORT.**

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Article Received on 25/07/2019

Article Revised on 15/08/2019

Article Accepted on 05/09/2019

**ABSTRACT**

Burns are injuries caused by the action of heat, electricity, chemicals or ionizing radiation. Cases of burns within the hospital are poorly described, although they represent a significant proportion of iatrogenic incidents in hospitalized patients. Given their important role in patient care, medical devices are sometimes the cause of these cases of burns. We report the case of accidental burning following the inappropriate use of a heating blanket.

**KEYWORDS:** Burn; Iatrogenic; Heating blanket.

**INTRODUCTION**

The risk of accidental burns in hospitals remains a significant reality. Any source of heat is likely to cause a burn. The iatrogenic burns reported in the literature are mainly dominated by electrode burns and antiseptics.

We report the case of a burn that occurred following the inappropriate use of a forced-air blanket in the pediatric intensive care unit.

**CASE REPORT**

We report the case of a patient aged 1 year and 08 months admitted to the pediatric intensive care unit for septic shock following a complicated acute intestinal invagination with peritonitis. In front of the hypothermia that the patient presented, an active external heating by forced air blanket was carried out. Accidental contact of the air source with the right lower limb occurred, the duration of which could not be determined in the absence of a neurological response from the patient who was sedated. These were deep burns involving the posterior surface of the right lower limb on an estimated body surface area of 10% (Figure1). The patient had a necrosectomy and then a skin graft coverage performed 21 days after the injury (Figure 2).



Figure 1: The burns suffered by the patient.



Figure 2: The wound after necrosectomy.

**DISCUSSION**

Iatrogenic burns remain rare events. However, they are always fraught with consequences for the patient and

very often for the healthcare team, faced with the threat of legal action and professional liability.<sup>[1]</sup>

Accidental burns in the operating room are the most frequent,<sup>[2]</sup> this is due to the presence of electrical equipment.<sup>[3,4]</sup> but also the use of antiseptics containing alcohol which is a flammable product.<sup>[5]</sup>

Burns by heated blankets can have several causes ranging from poor handling by caregivers to technical defects. In our case, the pipe connecting the heat distribution unit to the blanket was not properly connected, causing direct contact between the hot forced air and the skin.

Children have a thin dermis making them more vulnerable to burns,<sup>[6]</sup> an exaggerated systemic inflammatory response and a greater fluid leakage.<sup>[7]</sup>

The temperature of the forced air and the distance between the heat source and the skin determine the severity of the incident.<sup>[8,9]</sup> The lack of response to thermal stress due to the patient's sedation is an aggravating factor in the burn.

Prevention by strict monitoring of facilities designed to warm patients is the best way to prevent this type of incident from occurring.

## CONCLUSION

We report this case to highlight the importance of the vigilance of caregivers in the face of any heat source in order to prevent the occurrence of iatrogenic burns, especially in sedated patients.

## Conflict of Interest

The authors have no conflicts of interest to declare.

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