

## CASE REPORT

# **ISOLATED PERINEAL BURN CONTRACTURES PRESENTING WITH CHRONIC INTESTINAL OBSTRUCTION: A CASE REPORT**

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**SUMMARY.** Isolated perineal burns are rare and so are perineal contractures. Perineal contractures may however lead to intestinal obstruction, which is a more life-threatening complication. A six-yr-old boy presented with chronic intestinal obstruction following isolated perineal contracture due to a deliberate perineal burn injury to treat a febrile convulsion. The obstruction was successfully relieved using local flaps to release the perineal contracture. There is a need for meticulous care in perineal burns to avoid perineal contractures, which may result in chronic intestinal obstruction.

### **Introduction**

Post-burn contractures are a common complication of deep partial- and full-thickness burns involving joints or flexural surfaces. Perineal burns are rare because the perineum is relatively protected from exposure to burn agents. However, when burn injuries involve the perineum, it poses severe challenges to the surgeon in the acute stage, and may result in disabling perineal contractures in the chronic stages.<sup>1,2</sup>

Isolated perineal contractures are uncommon. More often than not, perineal burns occur in the context of major burns.<sup>3</sup> They may however occur from falling onto a flame or burn agent and landing on the buttock. The deliberate use of heat to rouse children from loss of consciousness during a febrile convulsion is sometimes seen in the environment where we practise. It is usually the feet that are brought into contact with the flame. In the patient presented, however, it was the buttocks that came into contact. We present this case report in order to highlight this rare isolated perineal contracture from deliberate burn injury and the potentially life-threatening complication of intestinal obstruction that may occur a few years after the burn injury to the perineum.

### **Case report**

A 6-yr-old boy presented with progressive constipation, reduction in stool calibre, abdominal discomfort, and increasing abdominal distension, all of three years' dura-



**Fig. 1** - Patient supine with distended abdomen.



**Fig. 2** - Posterior view of patient in erect position.

tion. He had sustained perineal burns one and a half years earlier, following an attempt to revive him from an episode of convulsions during a febrile illness. The wounds had healed three months after injury, with the use of conservative dressing of the wounds at the managing hospital.

Examination revealed a pale young child with grossly distended abdomen (*Fig. 1*) and hyperactive bowel sounds. He had a left-sided, non-tender, indentable abdominal mass measuring 16 by 10 cm and extending from the left iliac fossa to the suprapubic region. He had extensive perineal contractures with a pin hole opening in the gluteal cleft, which could not admit a finger for rectal examination (*Figs. 2, 3*).

He was worked up and had surgical release of the contractures, using multiple Z-plasties (*Fig. 4*). This was followed by the passage of bulky amounts of stools three to five days post-surgery, disappearance of the abdominal mass, and relief of the abdominal distension. He was discharged home two weeks after surgery and last seen in the outpatient clinic three weeks later without complaints, since when he has been lost to follow-up.

### Discussion

Perineal contractures have been associated with intestinal obstruction.<sup>4</sup> This may occur because of anal stenosis following anal burns or result from contracture of the gluteal cleft with consequent inability to defecate normally in spite of a normal anal opening. Common causes of perineal burns include the spillage of fuel onto clothing around the perineum, accidental falling astride or with the buttocks on a burn agent, or the explosion of a kerosene stove.<sup>1,4</sup> The deliberate application of heat in the form of flame to revive patients during a fit - which accounted for the perineal burns in the patient we present - is not reported in the literature but is occasionally encountered in our practice. Most commonly it is the feet that are immersed in flame but the perineum may be involved as a result of the confusion that usually ensues following a fit when attempts are made to apply this form of "treatment". The practice is premised on the fact that heat will arouse an unconscious patient from the post-convulsive state.

Although conservative management of perineal burns is recommended,<sup>5</sup> burn wound excision and thick split-thickness skin grafts may be necessary. When contractures have occurred, appropriate contracture release with coverage of skin defects with split-thickness skin grafts or multiple Z-plasties or other local flaps may suffice.<sup>5</sup> Anal dilation, scar excision, and direct closure may also be uti-



Fig. 3 - Pre-operative view of perineum in lithotomy position.



Fig. 4 - Immediate post-operative picture of patient.

lized in reconstruction, as appropriate.<sup>6</sup>

Recurrence rates of up to 50% have been reported following the surgical release of contractures.<sup>7</sup> Our patient was followed up for less than a month and we can only assume that he had no recurrence.

### Conclusion

There is a need to pay particular attention to perineal burn wound care with a view to preventing perineal contractures, in view of the severe and even life-threatening complication of intestinal obstruction that may ensue.

**SUMMARY.** Les brûlures périnéales isolées sont rares, comme aussi les contractures périnéales. Cependant, les contractures périnéales peuvent causer une obstruction intestinale, c'est-à-dire une condition capable de menacer la vie même du patient. Un petit patient de 6 ans s'est présenté atteint d'une obstruction intestinale chronique après avoir souffert une contraction périnéale isolée qui s'est produite après une lésion périnéale délibérée infligée pour traiter des convulsions fébriles. L'obstruction a été éliminée avec succès moyennant l'emploi de lambeaux locaux pour libérer la contraction périnéale. Il faut prêter grande attention dans les ustions de la zone périnéale pour éviter les contractures périnéales, qui peuvent mener à une condition d'obstruction intestinale chronique.

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### **G. WHITAKER INTERNATIONAL BURNS PRIZE-PALERMO (Italy) Under the patronage of the Authorities of the Sicilian Region for 2011**

By law 57 of June 14th 1983 the Sicilian Regional Assembly authorized the President of the Region to grant the "Giuseppe Whitaker Foundation", a non-profit-making organization under the patronage of the Accademia dei Lincei with seat in Palermo, a contribution for the establishment of the annual G. Whitaker International Burns Prize aimed at recognizing the activity of the most qualified experts from all countries in the field of burns pathology and treatment.

Law 23 of December 2002 establishes that the prize becomes biannual.

The next prize will be awarded in 2011 in Palermo at the seat of the G. Whitaker Foundation.

The amount of the prize is fixed at Euro 20,660.00.

The Adjudicating Committee is composed of the President of the Foundation, the President of the Sicilian Region, the Representative of the National Lincei Academy within the G. Whitaker Foundation, the Dean of the Faculty of Medicine and Surgery of Palermo University or his nominee, a Representative of the Italian Society of Plastic Surgery, three experts in the field of prevention, pathology, therapy and functional recovery of burns, the winner of the prize awarded in the previous year, and a legal expert nominated in agreement with the President of the Region as a guarantee of the respect for the scientific purpose which the legislators intended to achieve when establishing the prize.

Anyone who considers himself to be qualified to compete for the award may send by **January 31st 2011** his detailed curriculum vitae to: Michele Masellis M.D., Secretary-Member of the Scientific Committee G. Whitaker Foundation, Via Dante 167, 90141 Palermo, Italy.

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