Case Report

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Silver Nitrate Burn after Umbilical Granuloma Treatment: A Case Report

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Abstract

It is a common paediatric problem that needs simple treatment with local cauterization with silver nitrate. This 10 day baby male was admitted to Neonatology Department with peri umbilical ulceration and pigmentation. Clinically it was viewed to be consistent with chemical burns. His mother was allergic to silver. Treatment was conservative, and the outcome was good in the case.

Keywords: Neonatology; Umbilical granuloma; Periumbilical area

Introduction

The most commonly used treatment of umbilical granuloma is silver nitrate cauterization that comes mounted on a wooden stick applicator in a concentration of 75% [1-3]. Its use can result in burns to peri umbilical skin, so caution should be exercised during application [4-6].

Case Report

A male patient was born in Turkey at 37 weeks of gestation via lower segment cesarean section delivery with a birth weight of 3300 g and a length of 50 cm.

His mother was 29 years old and his father was 32 years old, both were healthy and unrelated. The mother did not use any medications during pregnancy **(Figure 1).**

No prenatal ultrasound scan was performed. There was no family history of ID or congenital anomalies. The mother was allergic to silver.

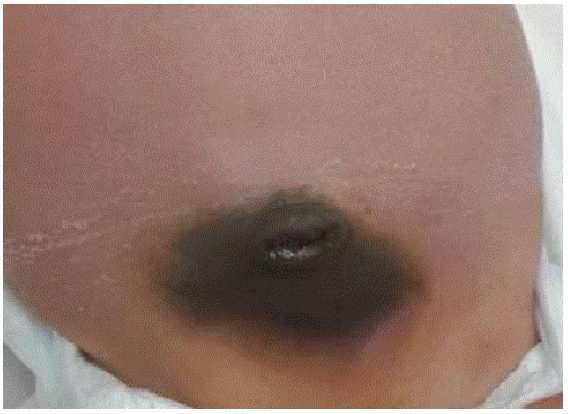

Figure 1: Silver nitrate burns to the periumbilical area.

She was referred on the 10th day. On clinical examination, we noted a umbilical granuloma and chemical burns to the peri umbilical area. It was found that he once treated with umbilical granuloma for 75% silver nitrate stick. Treatment was conservative, and the outcome was good in the case **(Figure 2).**

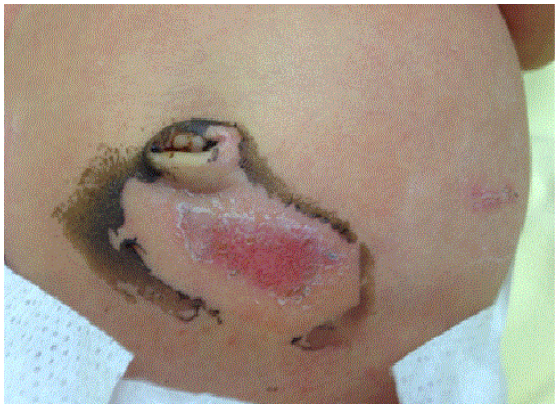

Figure 2: Seven days after conservative treatment.

Discussion

It is a common paediatric problem that needs simple treatment with local cauterization with silver nitrate [7,8]. This chemical acts as an antiseptic, astringent, or caustic agent depending on the concentration. This chemical cauterization has been reported to cause periumbilical Cutaneous burns [9-11]. Careful drying of the umbilical exudate to prevent spillage is essential in preventing staining of the skin or chemical burns [12-14]. There have been case reports documenting burns following silver nitrate application. The literature reveals that silver nitrate has also been implicated as the causative agent in contact dermatitis, although it is generally thought to be a rare occurrence [15-18]. In this case we thought that silver nitrate burn at the peri umbilical area could be related to the mother's silver allergy.

Instead of silver nitrate application, it could be a more rational approach to utilize alternative methods for umbilical granuloma treatment of babies of the mothers which are allergic to silver.

Conclusion

For umbilical granuloma treatment of babies of the mothers which are allergic to metal it will be a wise move to use a cautious approach while using silver nitrate.

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