

Misdiagnosed Umbilical Granuloma Resulting in Umbilical Burns Due to Improper Application of Silver Nitrate in New-Borns

Kazim Ghafoor*, Stacey Najera and Sathish Bangalore

Department of Paediatrics, Northwick Park Hospital, London North West University Healthcare NHS Trust, Watford Road, Harrow, HA1 3UJ, United Kingdom

***Corresponding author:** Kazim Ghafoor, Department of Paediatrics, Northwick Park Hospital, London North West University Healthcare NHS Trust, Watford Road, Harrow, HA1 3UJ, United Kingdom, E-mail: kazim.ghafoor@nhs.net

Received: April 10, 2021; **Accepted:** April 18, 2021; **Published:** May 05, 2021



Clinical Image

Two separate cases of 10-day old new-borns presenting to the Emergency Department with superficial chemical burns to the skin around the umbilical area secondary to improper application of silver nitrate in primary care.

In both cases, the new-borns had been seen in primary care on day 9 of life due to concerns from parents regarding the appearance of the umbilical cord. In each case, the umbilical cord had separated on day 6 of life. At the time of assessment in primary care, the umbilical cord appeared pink and moist. The appearance was mistaken for an umbilical granuloma and consequently treated with topical silver nitrate.

The umbilical cord typically separates within the first week of life but can take up to 14 days, whereas umbilical granulomas appear a few weeks after the separation of the cord. An umbilical granuloma is an overgrowth of granulation tissue that appears as a soft, pink nodule with associated serous discharge. In each case, the new-borns presented 3 days after the umbilical cord separated making the diagnosis of umbilical granuloma unlikely.

In both cases silver nitrate was used as first line treatment for a suspected umbilical granuloma. Cases of silver nitrate burns have been well documented over the past two decades. In each case, silver nitrate was applied without the use of Vaseline to the surrounding area which helped precipitate the chemical burns. Furthermore, parents were not advised to keep the nappy below the level of the umbilicus following silver nitrate application.

Lastly, topical application of salt crystals is an effective and safe treatment for umbilical granuloma with a 100% resolution rate in a recent study by Bagadia et al. Given the risks associated with silver nitrate, it may prove safer to use salt crystals as first line treatment for suspected umbilical granulomas.

REFERENCES

1. Lopez-Medina MD, Lopez-Araque AB, Linares-Abad M, et al. Umbilical cord separation time, predictors and healing complications in newborns with dry care. *PLOS ONE.* 2020; 15: e0227209.
2. Majjiga VS, Kumaresan P, Glass EJ. Silver nitrate burns following umbilical granuloma treatment. *Arch Dis Child.* 2005; 90: 674.
3. Bagadia J, Jaiswal S, Bhalala KB, et al. Pinch of salt: A modified technique to treat umbilical granuloma. *Pediatr Dermatol.* 2019; 36: 561-563.