

Bedfordshire and Luton Joint Prescribing Committee

17 September 2014
Review Date: September 2017

Bulletin 205 : Household Salt for the Treatment of Umbilical Granuloma

JPC Recommendations:

The Committee agreed to support the current pathway for the treatment of UG i.e.

- Health Visitors recommend salt for umbilical granuloma, monitor response and refer to the GP if the treatment does not produce a satisfactory response or there is cause for concern or doubts over diagnosis.

Briefing Paper


Community Health Services Bedfordshire

Household Salt for Treatment of Umbilical Granuloma

Background

The NHS Institute for Innovation and Improvement published, in October 2006, a description of a development to use salt in the treatment of Umbilical Granuloma ⁽¹⁾ :

A clinical incident occurred when an infant with an umbilical granuloma was treated inappropriately by medical staff with silver nitrate and the granuloma developed widespread superficial burns. A review of risks was undertaken and guidelines were developed for the correct application of silver nitrate. From this research evidence was found which had shown salt to be an alternative treatment. A decision was made to carry out a trial of this under direction of consultants and with consent from parents. The procedure being to apply small amount of salt twice daily, cover for 30 minutes and wash off.

A Health Visitor (HV) suggested that this was adopted by SEPT Community Health Services Bedfordshire. The use of salt for UG was discussed and agreed within SEPT Community Health Services for Bedfordshire and use of a Patient Information Leaflet (PIL) shown in Appendix 1.

The use of salt for UG was based on the rationale that:

- HVs can supervise treatment on their own professional responsibility
- Salt is immediately available either in the home or easily purchasable
- The requirements for the following are removed:
 - GP appointment arrangement
 - GP surgery attendance
 - Issue of prescription (usually for Silver Nitrate, if issued)
 - Attendance at Community Pharmacy for dispensing of prescription.
- HVs can refer the baby to a GP if salt is unsuccessful or the medical opinion is indicated

During development safety issues in the use of Silver Nitrate emerged: abdominal burns and skin staining.

Health Visitors and other healthcare professionals can advise parents on rapid treatment and resolution of UG without “medicalisation” of a baby, removing the needs for prescribing and dispensing and the time and cost resources therein, but still refer to a medical practitioner if need arises.

Health visitors in SEPT Community Health Services Bedfordshire make individual assessments on a case by case basis, as is best practice and required of them as nurse prescribers; this is the sole responsibility of the health visitor; assessment is not delegated to support staff. If there is any doubt about the diagnosis, the practitioner would refer to a GP for a medical opinion.

Introduction

Since the introduction of the use of salt in UG in Community Health Services Bedfordshire , further evidence on use of salt and safety issues in use of Silver Nitrate have emerged.

Local Midwives and Consultant Neonatologists have expressed reservations about the use of salt without prior reference to medical opinion.

This paper presents the evidence on use of salt and safety issues in use of Silver Nitrate to facilitate discussions on the appropriate initial pathways on treatment of UG.

What Do We Already Know ?

- Silver Nitrate is one of the traditional treatments for UG, but this carries risks of abdominal burns and skin staining ^(2 & 3)
- Household salt is effective in the treatment of UG

What is the Evidence ?

• Silver Nitrate:

Three infants treated for umbilical granuloma with silver nitrate suffered chemical burns to the periumbilical area which prompted visits to the emergency department. Treatment was conservative, and the outcome was good in all cases. Caution was recommended when applying

silver nitrate to the umbilicus, careful drying of the umbilical exudate to prevent spillage, and discussion with parents that burns may occur but apparently are not serious ⁽²⁾

A 30 day old baby girl was admitted to Pinderfields hospital with periumbilical ulceration and pigmentation. Clinically it was felt to be consistent with chemical burns. On further enquiries it was found that she had been treated with silver nitrate for umbilical granuloma by her GP. ⁽³⁾

Both articles referred to the use of salt as a safer alternative.

• **Salt:**

Author	Number	Results	Ref
Kesaree	>100 babies with umbilical granuloma all treated with salt	100% clearance of granuloma (95% CI 96.38% to 100%)	4
Sanghvi	103 infants aged two to six weeks attending well baby clinic over a period of seven years. The decision to the number of applications was left to the mother.	79 infants had a granuloma: 57/79 (72%) with granulomas healed with one application; 16 (20%) needed two applications and the rest (8%) needed three applications. None of the infants with granulomas required silver nitrate cauterization	5
Hossain	Parents of 48 infants with UG were given instruction to treat their infants at home by application of salt twice a day, washed 30 minutes later and repeated for 3 days.	44 out of 48 (92%) cases had perfect cure after the three day course of treatment.	6
Farhat	Two groups including 20 infants with umbilical granuloma undergoing a 24 hours treatment with salt as the case group and 20 infants undergoing a 2 hours treatment with salt as the control group were compared.	In both groups, no treatment failure and salt side effects or complications were observed. 24-hours treatment of umbilical granuloma with salt was shown to be more effective than the 2-hours treatment method.	7
Faranoush	Clinical trial on 105 infants with UG, randomised to 3 groups: Salt 12 hourly for 3 days; 70% (0.5mL) twice daily; water (0.5mL) twice daily	Recovery rates: Salt 100%; Alcohol 34.3%; Water 14.3%. Recurrence rates at: Salt 0%; Alcohol 25.7% at average 8.3 days; Water 60% at average 4 days. Failures and recurrences were subsequently treated with salt. No recurrence of UG at 3 months in infants treated with salt	8
Marzban	The parents of 50 infants with UG were given instruction to treat their infant at home by application of common salt on the lesion 3- times	Cure and relapse and complication at 6 months: 100% cases had cure and relapse or complication was not found	9

	a day and repeated for 5 day course.		
--	--------------------------------------	--	--

Issues Emerging

Concerns have been expressed by a local Consultant Neonatologist that:

- parents should not be encouraged to treat without getting a medical professional to look at the granuloma first to confirm the diagnosis as very occasionally it may be an umbilical polyp due to a urachal anomaly (bladder communication) or phalomesenteric (also called vitellointestinal) duct anomaly (bowel communication).
- salt treatment in the majority of cases is likely to be an effective and safe option but that a medical professional should review the granuloma BEFORE salt treatment is recommended - parents **should not** be encouraged to try this treatment without medical review.

Other organisations are using salt:

- Royal United Hospital Bath paediatric department
http://www.ruh.nhs.uk/patients/patients_leaflets/paediatrics/Umbilical_Granuloma_patient_info.pdf

Salt treatment of UG is discussed by parents on various UK social media websites

Salt treatment is demonstrated on YouTube by a doctor:

- <https://www.youtube.com/watch?v=3H85T2txniA> (English)
- https://www.youtube.com/watch?v=_5rVBysQq2A (Gujarati)

Options

Option	Advantages	Disadvantages
Health Visitors to recommend salt for UG, monitor response and refer to GP if treatment does not produce satisfactory response, or there is cause for concern	<ul style="list-style-type: none"> • HVs monitor treatment response as experts in child health • Reliable and highly effective treatment with no adverse effects • Prompt treatment • Readily available • Promotes self-care in place of medicalisation • Avoids need for prescription and dispensing processes • Avoids costs in prescribing and dispensing • Any referrals to GPs are appropriate 	<ul style="list-style-type: none"> • Differential diagnoses of rarely-occurring non-UG conditions may not occur

<p>Health Visitors to refer UG to GPs or other medical professional prior to recommendation of salt treatment</p>	<ul style="list-style-type: none"> • Differential diagnoses of rarely-occurring non-UG conditions facilitated 	<ul style="list-style-type: none"> • Additional Medical appointment required • Slower treatment to outcome process for parents • Doctor may be unlikely to be knowledgeable about salt treatment for UG • Doctor may defer to prescribing silver nitrate rather than salt <p>If silver nitrate is selected:</p> <ul style="list-style-type: none"> • Appointment – prescription – dispensing tasks incurs additional time • Incurs costs in prescribing and dispensing • Clinical risk of burns and skin staining by silver nitrate, if selected, is higher than salt
---	--	--

Parent and Patient experience

Health Visitors who have recommended salt have reported several very successfully treated granulomas already and parents say they really like a treatment that they are in control of and that seems to them so simple and natural.

Conclusions

Salt treatment appears to be an effective treatment for UG that is safe, prompt, readily available and of immeasurably low cost and encourages self-care by parents rather than medicalisation. Treatment can be managed by HVs. No adverse effects have been recorded.

The evidence is based on pragmatic lesser quality trials conducted in developing countries but results appear to be consistent and indicate good clinical effectiveness rates. It is unlikely that higher quality randomised clinical trials would be conducted as there is no commercial driving interest associated.

NHS Trusts in the UK have adopted salt treatment and it was published by the NHS Institute for Innovation and Improvement.

Recommendations

Health Visitors should be empowered to recommend salt for UG, monitor response and refer to the patient's GP if salt treatment does not produce satisfactory response or there is other cause for concern.

This represents a safe and effective pragmatic pathway that improves efficiency within treatment pathways, parent experience and time taken to treat.

References

1. NHS Institute for Innovation and Improvement. October 2006: Umbilical Granulomas are Just a Pinch of Salt. http://www.institute.nhs.uk/hia_-_other_submissions/other_submissions/umbilical-granulomas-are-just-a-pinch-of-salt.html
2. Chamberlain, James M.; Gorman, Richard L.; Young, Grace M: Silver nitrate burns following treatment for umbilical granuloma *Pediatric Emergency Care* 1992 **8**(1) http://journals.lww.com/pec-online/Abstract/1992/02000/Silver_nitrate_burns_following_treatment_for.8.aspx
3. Majjiga V, Kumaresan P, & Glass E J. Silver nitrate burns following umbilical granuloma treatment: *Arch Dis Child* 2005;**90**:674 doi:10.1136/adc.2004.067918 <http://adc.bmj.com/content/90/7/674.full>
4. Kesaree N, Babu PS, Banapurthamath CR, et al. Umbilical granuloma. *Indian Pediatr*1983;**20**:690–2. <http://www.indianpediatrics.net/1983/sep1983.htm>
5. Sanghvi K P Best treatment for Umbilical granulomas *Arch Dis Child Fetal & Neonatal*: (Correspondence) <http://fn.bmj.com/letters?first-index=382&hits=10>
6. Zahid Hossain AKM, Gazi Zahirul Hasan, Didarul Islam KM: Therapeutic Effect of Common Salt (Table/ Cooking Salt) on Umbilical Granuloma in Infants *Bangladesh Journal of Child Health* 2010 34(3) <http://www.banglajol.info/index.php/BJCH/article/view/10360>
7. Farhat A , Mohammadzadeh A Comparison between Two and Twenty-four Hours Salt Powder in Treatment of Infant Umbilical Granuloma Iranian Red Crescent Medical Journal *IRCMJ* 2008; 10(4):267-269 http://ircmj.com/?page=article&article_id=268
8. Faranoush M, Ghorbani R, Malek M, Amin Beidokhti, M, Yazdiha M: A comparative study on therapeutic effect of sodium chloride and alcohol in infants with umbilical granulomas. *The Journal of Qazvin Univ of Med Sci*, 2006 10(2) http://journal.qums.ac.ir/files/site1/user_files_cc066c/admin-A-10-1-74-58293af.pdf
9. Marzban A. Curative Effect of Common Salt on Umbilical Granuloma. *Journal of Medical Council of Islamic Republic of Iran* 2008 26(3) 132-3

<http://www.cuprimedia.com/home/article/curative-effect-common-salt-umbilical-granuloma>

(English translation)

<http://en.journals.sid.ir/ViewPaper.aspx?ID=142166>

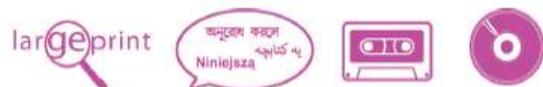
Community Health Services Pharmacy Lead
SEPT Community Health Services Bedfordshire
August 2014

Patient Experience Team

If you have any concerns or need advice about accessing NHS services, you can speak in confidence to the Patient Experience Team on 0800 013 1223.

or you can email pals.ppi@sept.nhs.uk

This leaflet can be produced in large print, audio cassette, Braille and other languages on request.



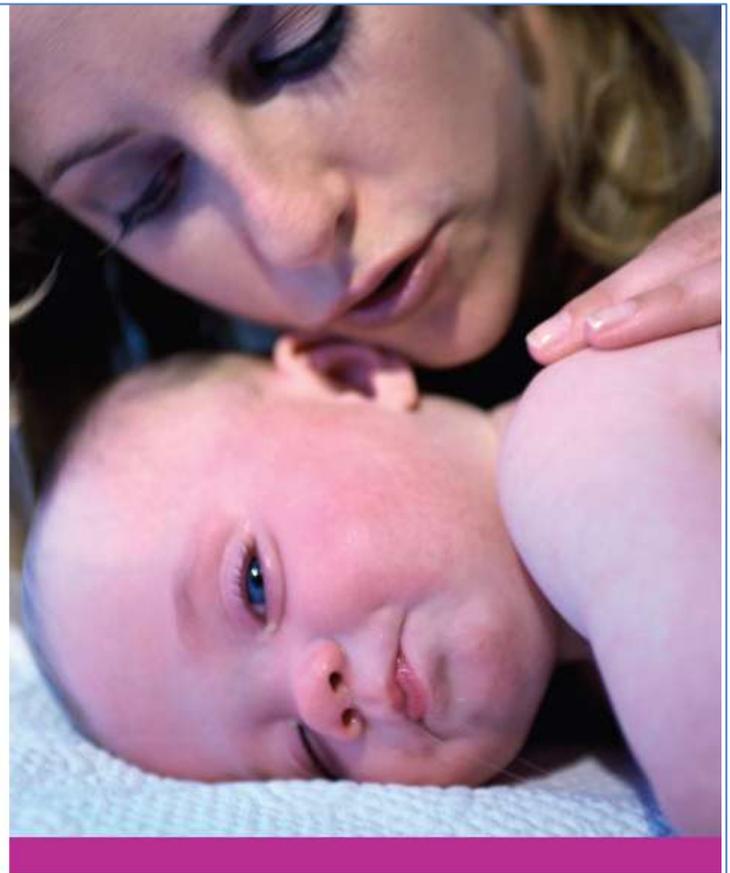
SEPT regards equality and diversity as integral to the way it works. Our staff will ensure that everyone is treated fairly and no one is discriminated against on the basis of their ethnicity, gender, disability, age, sexual orientation and religion or belief.



www.sept.nhs.uk

 Review
July 2015
Aug 2013

CBE 0151



Treating your baby's umbilical granuloma

Local Services, Local Solutions



What is an umbilical granuloma?

An umbilical granuloma is a piece of tissue that stays on your baby's belly button after the umbilical cord has fallen off. It usually looks like a soft pink or red lump and it may leak a little.

Why do I need to treat it?

An umbilical granuloma increases the risk of an umbilical infection, which can lead to your baby feeling unwell.

How can I treat it?

It can be simply and safely treated by applying ordinary household salt. Apply a small pinch of table or cooking salt to the granuloma and cover it with gauze for 10 minutes.

It may help to tuck the gauze into your baby's nappy to keep it in place. After 10 minutes, gently rinse the salt away using warm water and another piece of gauze.

How often should I treat the granuloma?

You need to apply the salt treatment twice a day for at least 3 days. Continue until the granuloma heals. If it has not healed after 7 days of treatment, ask your health visitor or GP to check it. This could be done at a well baby clinic.

What should I look for?

You will notice the granuloma gets smaller; it may change colour and become dry and the umbilicus will heal. If the belly button becomes red or has a discharge, your baby may have an infection and should see a GP, although this is very unusual.

What else can I do?

Try to keep the belly button clean and dry. Let the air get to the area by rolling back the top of the nappy.