The difference in topical therapies following cautery: type and duration

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ABSTRACT

Topical nasal preparations are commonly prescribed following nasal cautery for epistaxis.

- Topical nasal preparations serve three main purposes:
1. Prevention of infection post cautery
 2. Maintenance of moist mucosa during healing process
 3. Reducing risk of further epistaxis

Topical nasal preparations are used off-license post epistaxis. This poster shows a visual representation of nasal mucosal healing following administration of two different nasal preparations following silver-nitrate cautery

METHODS

2 otherwise healthy individuals underwent silver nitrate cautery. Following cautery 1 used used mupirocin ointment (Bactroban) twice daily and the other used chlorhexidine dihydrochloride + neomycin sulfate (Naseptin) twice daily.

Cautery was performed by the same individual with AgNO₃ cautery stick held against mucosal lining for 8 seconds

Intranasal examination took place with headlights and Thudicums nasal speculum.

Timing of examination and pictures was as follows:

- Immediately post-cautery
- Day 3
- Day 5
- Day 9
- Day 13
- Day 15

Pictures were taken using a 0° Hopkins rod to assess mucosal healing following cautery.

INTRODUCTION

Anecdotally the management of patients following cautery for anterior epistaxis varies between institutions and individuals.

The recent National Epistaxis Audit is showing interesting findings that the immediate management of epistaxis can greatly effect the duration of inpatient stay. Early results from the audit have shown early ENT intervention and cautery reduces time spent in hospital and overall morbidity.

In our experience topical treatments are often prescribed following nasal cautery varying from creams (Naseptin – chlorhexidine dihydrochloride + neomycin sulfate) to ointments (Bactroban – mupirocin calcium). Not only does the topical treatment vary in type but also duration, with advice ranging from applying topical therapy twice daily for 1 week / 10 days / 2 weeks, with 2 weeks tending to be the longest duration advised to apply treatments.

A simple test was devised to ascertain if there was an ideal timescale to apply treatments and also if there was any difference in outcomes between creams and ointments

RESULTS

Pictures were taken immediately post cautery and at days 3 / 9 / 13 / 15 to span range of duration often advised by ENT teams to patients following silver nitrate cautery.

Post-cautery treatment with Naseptin appeared to soften area of cautery and crusting sooner, however signs of cautery persisted beyond 15 days. This would suggest that it may be beneficial, when using Naseptin, to use topical treatment for beyond the 2 weeks often advised.

When using Bactroban, the area of cautery appeared more clearly defined up to day 9 post cautery. However beyond this day at days 13 and 15 there was minimal and no (respectively) evidence of cautery.

The individuals reported no epistaxis whilst using topical therapies.

Topical Chlorhexidine Dihydrochloride + Neomycin (Naseptin)

Topical Mupirocin (Bactroban)

DISCUSSION

Post-cautery topical treatment is variable. Advice for patients differs from department to department in duration and choice of topical ointment/cream. In our experience both Naseptin and Bactroban are commonly used with loose duration of treatment, varying from twice daily usage for 2 weeks to “when the tube runs out”. It is useful for patients to be given consistent advice post-cautery to help guide recovery and keep them better informed of expected recovery time.

One can see from the post-cautery images that there is a discrepancy in the healing time of the nasal mucosa following cautery between the usage of Naseptin and Bactroban. Macroscopic changes in nasal mucosa are visible beyond 2 weeks when using Naseptin but not with Bactroban.

Though a very small observational study limited to 2 individuals, this measurement of healing time gives us an idea as to how different topical treatments affect the nose post cautery. It is therefore perhaps worth considering alternative topical preparations following silver nitrate cautery.