

Effectiveness Of Table Salt Versus Copper Sulphate In Treating Umbilical Granuloma: A Pilot Randomised Controlled Trial

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Background

- **Umbilical Granuloma** is a common infantile condition which usually responds well to non-operative treatment.
- Chemical cauterization using Copper sulphate (CuSO₄) is often used, but it can lead to superficial skin burns.
- Alternatively, table salt (NaCl) can be used to osmotically dehydrate granulation tissue leading to necrosis.
- NaCl is self-applied by caregivers, while CuSO₄ application requires trained medical personnel.

Aim

- To compare the effectiveness of **NaCl** versus **CuSO₄** in treating umbilical granuloma.

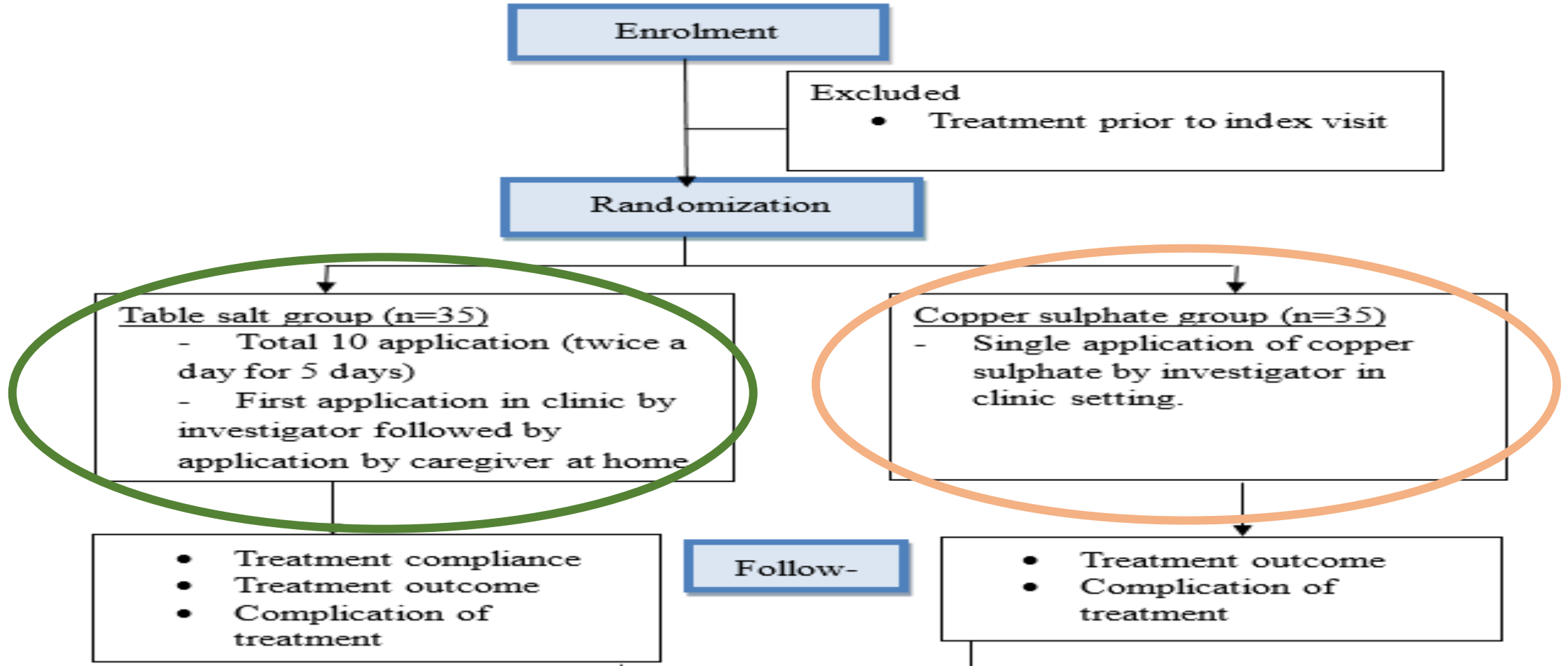
Methods

- We performed a multi-centre randomized controlled trial involving **three** regional Paediatric surgical units.



- We included children who presented with umbilical granuloma from **December 2018 - May 2020.**

Methods



Methods

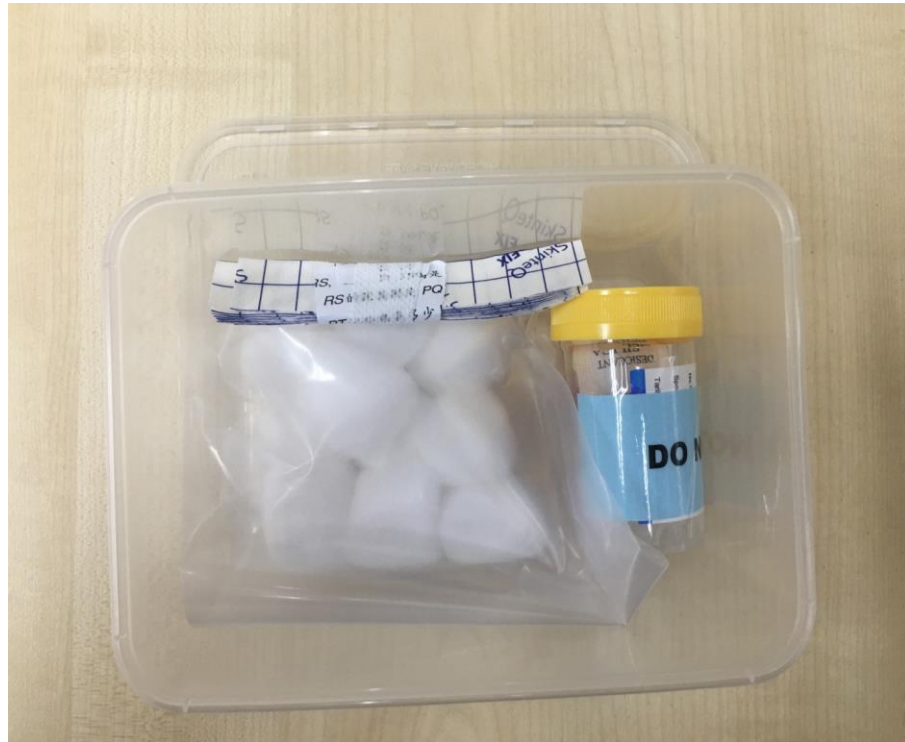


Table salt kits (pills containing table salt, cotton, adhesive tap)

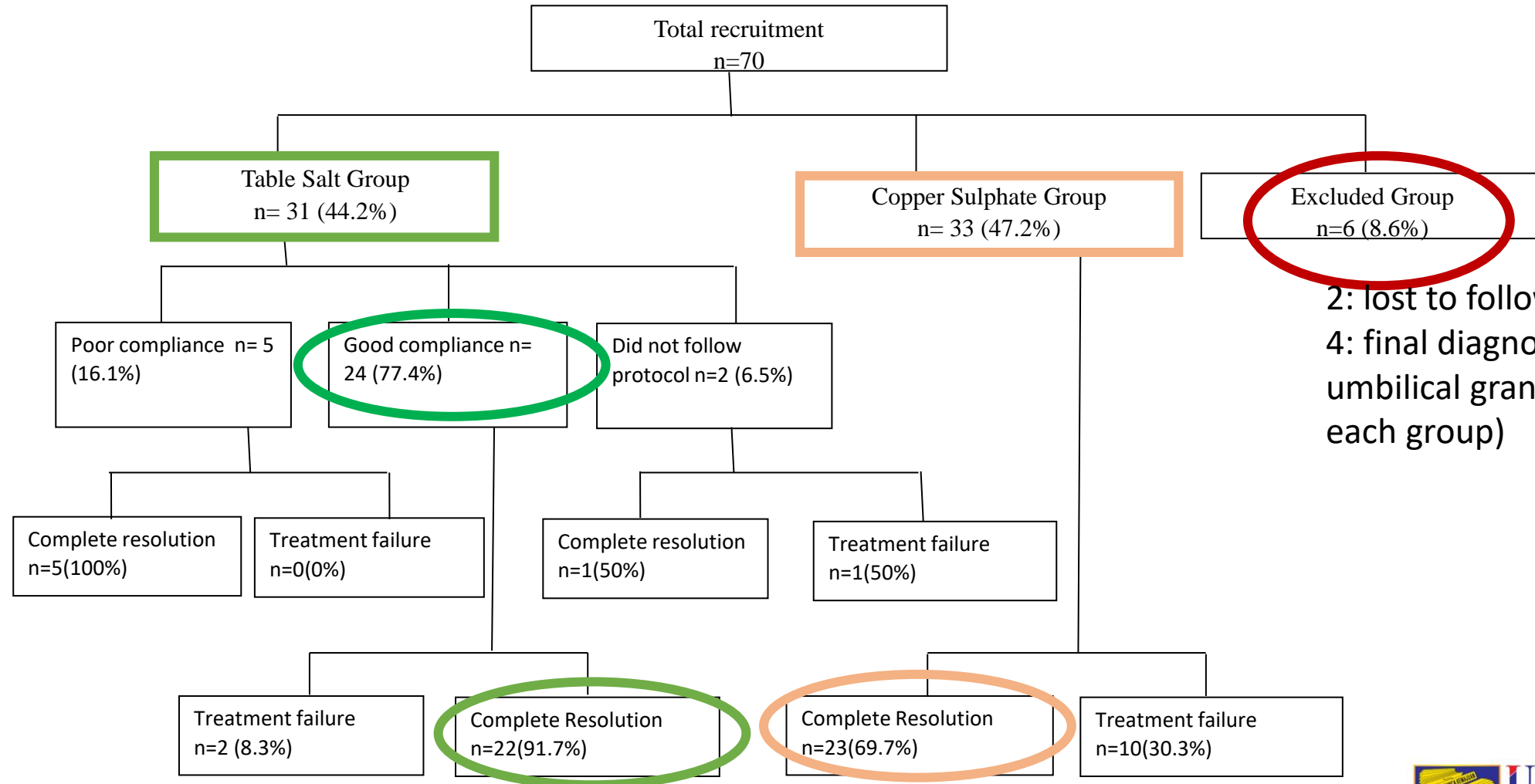


Each subject in the table salt group received a container with pills packed with table salt. The **pill counting method** was used for monitoring of compliance.

Methods

- **Treatment success:** Complete resolution of umbilical granuloma
- **Treatment failure:** Partial or No response to treatment
- Those with treatment failure were reverted to the respective center's routine management.
- Those whose final diagnosis was NOT umbilical granuloma were excluded from data analysis

Results



2: lost to follow up
4: final diagnosis was not umbilical granuloma (2 in each group)

Results

Table salt: none had complications

Copper sulphate: 9% (n=3) developed **superficial skin burns** after application of copper sulphate despite usage of barrier cream.



Conclusion

- Table salt is an ideal choice of treatment for umbilical granuloma as it is effective, safe, and readily available.
- It is suitable for use in resource limited settings.

Thank you