SEARCHING FOR A TREATMENT FOR PERIPHERAL TISSUE ISCHEMIA IN NEWBORNS: A CASE REPORT

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BACKGROUND AND IMPORTANCE
- Topical nitroglycerin has been used off label as salvage therapy of peripheral tissue ischemia (PTI).
- 2% topical nitroglycerin ointment (TNO) as a compounding formula was requested for two premature babies with PTI due to vascular catheterization.
- Shortage of raw material for making the formula.

AIM AND OBJECTIVES
- To identify an alternative for 2% TNO.
- To describe the effectiveness and security of applying commercialized 0.4% rectal nitroglycerin ointment (RNO).

MATERIALS AND METHODS
- Prospective study (January-June 2022) of TWO NEWBORNS:
  
  **PATIENT 1**
  Female, 31+5; 2 days, 1500g.
  ➢ Ecchymosis in 4 fingers.

  **PATIENT 2**
  Female, 24+6; 5 days, 595g.
  ➢ Marked necrosis in 5 finger pads.

- Spanish Pharmacy Preparations and Compounding Group
- Spanish Agency for Medicines and Medical Products (AEMPS)
- MEDLINE, PubMed, Embase and Google Scholar

- A CLOSE FOLLOW-UP was carried to evaluate effectiveness and security of the alternative drug.

RESULTS

**PATIENT 1**
➢ Ecchymosis completely disappeared in 48h.
➢ No adverse events. No vasoactives.
➢ No loss of phalanges.

**PATIENT 2**
➢ 10 days to remit the marked necrosis.
➢ Well tolerated. Dopamine (↓BP).
➢ No loss of phalanges.

Safest
Easy to dose
Most effective
Quickest to acquire

CONCLUSION AND RELEVANCE
- 0.4% RNO in PTI was effective and safe. However, it is necessary to be studied in more patients.
- Pharmacist’s role and its integration in the multidisciplinary team is crucial to ensure a quick response in emergency situations.