

# Ulcerated Hemangioma: a case report and proposal of treatment with polymeric membrane dressings

Renata Grizzo Feltrin de Abreu, Katheryne M. Garcia, Simone N. Fortes, Heloísa G. A. Campos



**Introduction:** Infantile hemangiomas (IHs) are benign tumors that occur in 10% of newborns, in the first weeks of life, with higher incidence in baby girls and generally the tumor can evaluate to severe forms with a tendency to develop wounds that are difficult or fail to heal. Those areas of skin affected are very fragile even after healing occurs, always associated with pain and deformity of the affected structures. Current treatment with propranolol for IHs reduces the risk of these occurrences the sooner it starts, and it is based on symptom management with emphasis on skin and wound therapies, pain relief together with psychological support. The aim of wound management in children is to protect the skin from further damage while providing an optimal healing environment for those areas that have been damaged. Wound management is complex with a confusing number of dressings available. Therefore suitable dressing choice is paramount. Dressings used should be limited to those that are non-adherent to the wound bed and the fragile peri-wound skin. The 55 days female baby presented extensive wound and painful hemangioma in the perianal area, considered of difficult management. She also suffered with wound infections that required treatment with oral antibiotic.

**Aim:** Evaluate the use of polymeric membrane dressings in the management of wounds in the treatment protocol for ulcerated IH segmentar that involve perineum, buttock and entire left lower limb, and the result reached, by associating propranolol and other known systemic medicines, in addition to hyperbaric chambre.

## Factors considered were:

- Healing
- Pain
- Ease of application and removal
- Protective barrier for contamination



**Method:** The protocol of treatment proposed for ulcerated hemangioma considers age, number of lesions, evolutive stage, diameter of the ulceration and pain intensity, being evaluated by Neonatal Infant Pain Scale (NIPS).

Treatment included propranolol, corticosteroid, antibiotics, hyperbaric chambre, collagenase (topical), and polymeric membrane dressings being these non-adherent. They have a polyurethane matrix, with a semipermeable thin film backing. These dressings contain components which draw and concentrate healing substances from the body into the wound bed to promote rapid healing while facilitating autolytic debridement. The continuous release of the wound cleanser/surfactant eliminates the need for manual wound bed cleansing during dressing changes. The surfactant, glycerol and starch-copolymer work synergistically promoting wound cleansing and healing. These dressings have a documented effect on reducing tissue inflammation and pain and accelerate healing.



**Results:** There was a noted improvement of the wound, reduced pain and decreased crusting, the dressing was continued. The wound quickly showed evidence of granulation and epithelialisation, decreasing in size.

**Discussion:** Ulcerated hemangiomas are painful and healing may be difficult when there are stools and urine to contaminate the wound. Polymeric membrane dressings has had a huge impact on quality of life because they provide adequate humidity, prevent infection and accelerate the healing process by increasing local perfusion, controlling swelling, reducing the size of the wound, performing bacterial cleansing, and stimulating and accelerating the formation of new regenerative tissue, thus, decreasing time of healing and pain.

**Conclusion:** Ulcerated hemangiomas require specialized assistance that combines systemic and local treatment. The treatment presented was effective in accelerating the healing process and thus, reducing the child's and family's suffering.

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