Sirolimus 1% oily ointments used to treat facial angiofibromas in tuberous sclerosis patients can produce acne, making them reject the treatment.

**Purpose**

- Elaboration of a non-oily formula of topical sirolimus

**Material and Methods**

- Literature review of:
  - Alternative topical sirolimus formulations
  - Physicochemical properties of sirolimus

**Results**

**0,2% sirolimus gel**

- **2% Carmelose gel preparation**
  - Aqua conservans (Nipagin® 0,25g + Nipasol® 0,11g + distilled water 500mL) warmed to 50 °C
  - Mix 2g of sodium carboxymethylcellulose and 10g of glicerol in a mortar
  - Add the content of the mortar to 88g of heated aqua conservans and stir the mixture until room temperature is reached
  - Weigh 0.2g of sirolimus and add a few drops of glycerol to it
  - Slowly pour the carmelose gel on the sirolimus, mixing them by stirring, until the 100g are added
  - Let it stand for 12h until the gel is homogeneous

  * Expiry date: 2 months in an opaque container and at room temperature (below 25°C)
  * Caution: Use mask and gloves during the procedure

**Conclusion and Discussion**

- Compounding of topical sirolimus in non-oleous excipients is possible
- Further studies to determine the efficacy on angiofibromas and the improvement of acne are needed