Optimization of emulgel tamanu oil (Calophyllum inophyllum L.) formula and testing its activities on skin wound healing

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**Background**

Tamanu oil from *Calophyllum inophyllum* L. seed has been empirically reported for healing wounds and other skin problems. Tamanu oil contains calophyllolide and inophyllide which plays a role in inflammatory processes linoleic acid and saponins (Dweck and Meadows, 2002; Raharivelomanana et al., 2018), which can help the wound healing process (Miller, 1996). However, the use of tamanu oil as a practical and comfortable wound cover like emulgel has not been studied. In this study optimization of the formula was carried out to produce the appropriate emulgel characteristics and tested its activity on skin wound healing.

**Method**

The wound cover activity test

**Results**

The optimal formula characterization results show pH value 6.38 and viscosity 498.33.

**Conclusions**

1. The optimal formula for tamanu oil emulgel as predicted by Design Expert software consists of 24.72% HPMC and 75.28% propylenglycol.
2. The optimal formula for tamanu oil emulgel meets the physical and chemical properties of the emulgel.
3. The optimal formula for emulgel tamanu oil has the activity of covering incisions based on the percentage of wound healing.

**References**