

# BRAZILIAN RED PROPOLIS – A PRODUCT FROM NATURAL ORIGIN FOR HEALING SKIN LESIONS OF SECONDARY INTENTION

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## SKIN WOUND HEALING

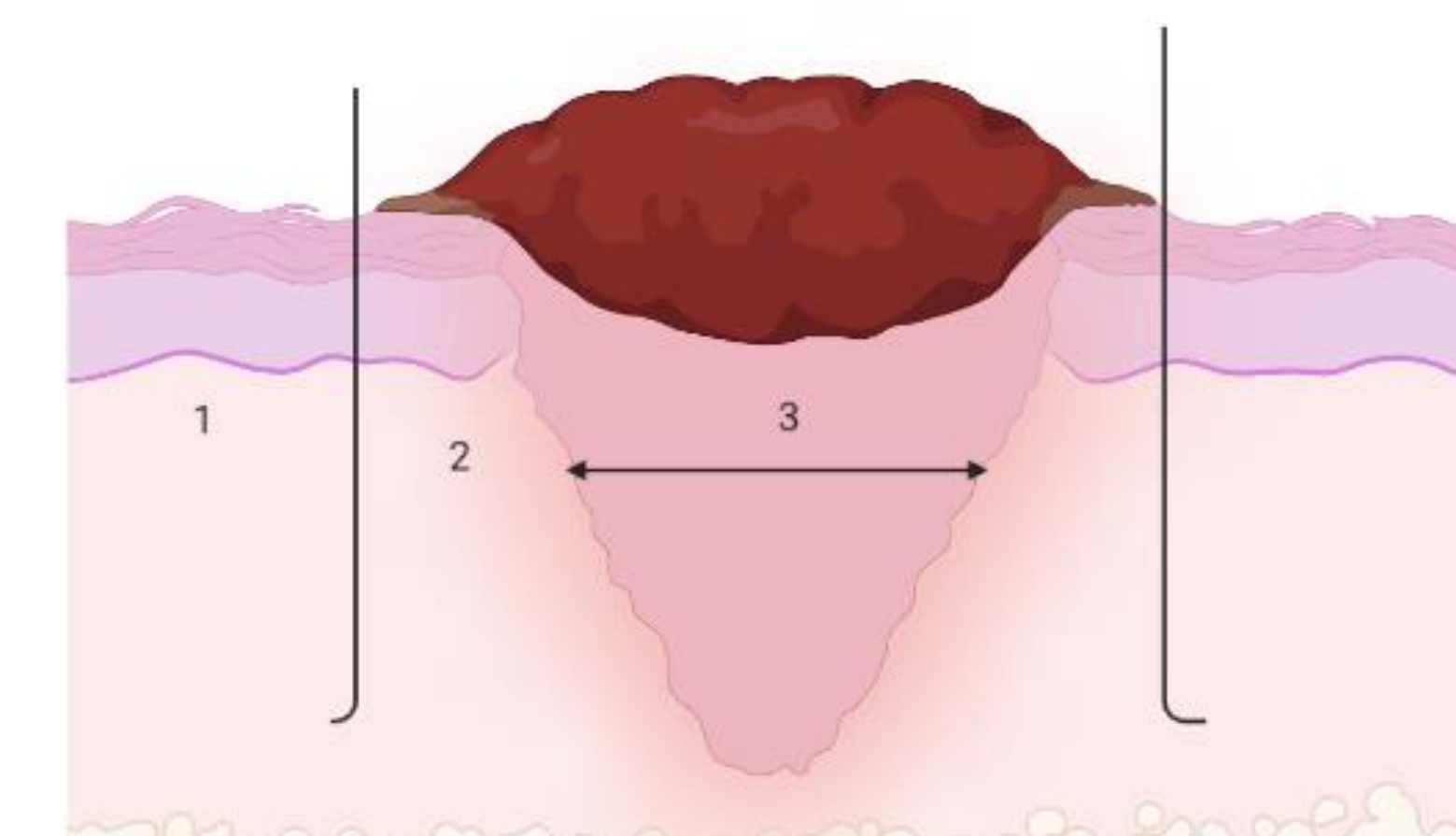


**Introduction:** Brazilian red propolis (BRP) is a resinous material produced by bees from plant resins and exudates. These have anti-inflammatory, antioxidant, antitumoral, and wound healing to enhance some biological processes.

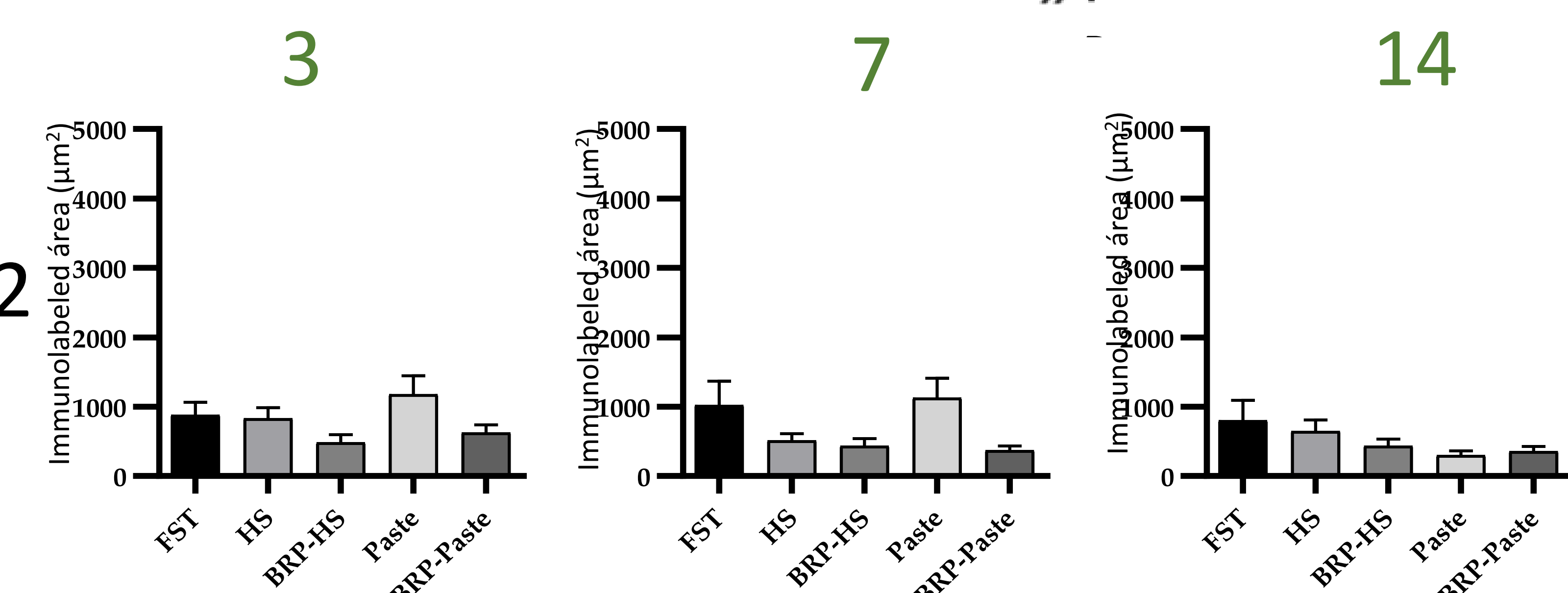
**Material & Methods:** We studied the action of BRP in two formulations: hydroalcoholic extract (HLC) and pasta (PAS). Both formulations at 1% PVB were applied to second intention injuries in rats' skin. The treatments were performed daily for 3, 7, or 14 days after the wound induction. Samples were taken for morphological analysis of the edge and center of the lesions, immunostained for Ki67 (cell proliferation) and VEGF (Vascular Endothelial Growth Factor).

**Results:** Macroscopic analysis after 14 days of treatment showed a more significant retraction of the lesion in the HLC-BRP group and the PAS-BRP group with dry and adherent crust. There was intense cell proliferation in the central portion of the lesion of the groups HLC-BRP and PAS-BRP by Ki67, and the number of vessels increased after three days in the HLC-PVB and PAS-PVB groups. The PAS-PVB increased the number of vessels in the center of the lesion.

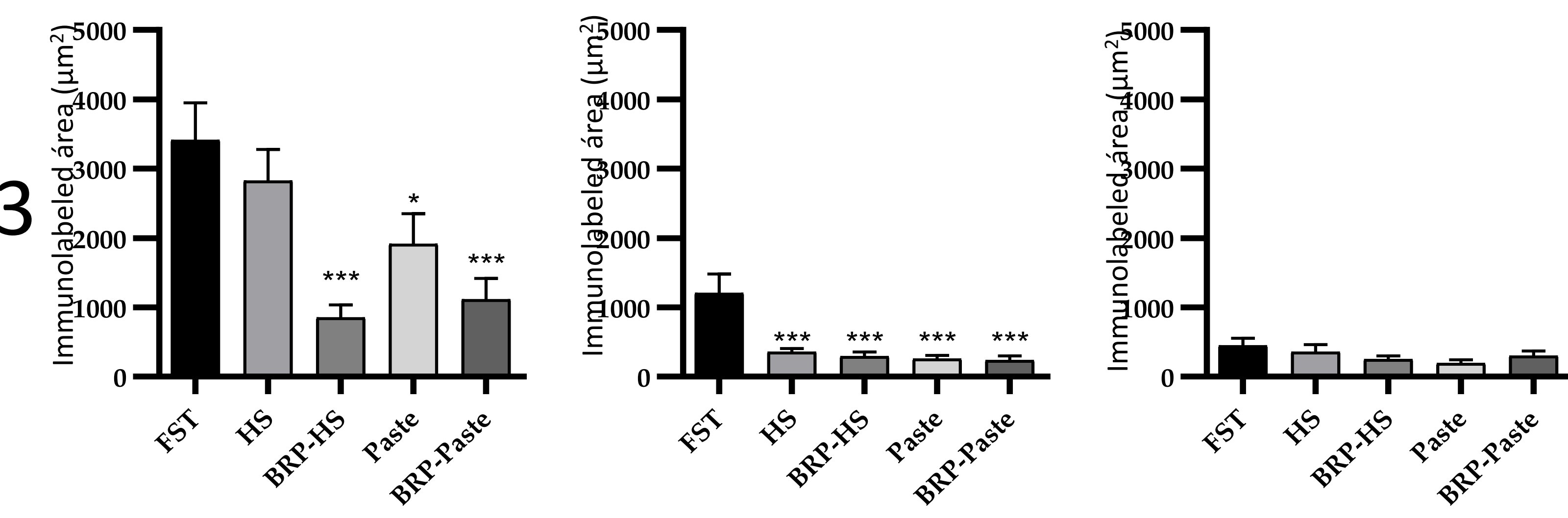
**Conclusion:** BRP in both formulations worked as a skin wound healing enhancer by increasing vascularization and cell proliferation.



1- Healthiness Skin  
2- Border  
3-Center of lesion



## Ki67



## VEGF

