Comparative study on Manuka and Indonesian honeys to support the application of plasma jet during proliferative phase on wound healing

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Abstract	a:4:{i:0;s:255:"Purpose: A comparative investigation was conducted to determine the effectiveness of Manuka and Indonesian honeys to support the application of plasma jet treatment during the proliferative phase of cutaneous wound healing in 8-week-old, BALB/c male mice.";i:1;s:1066:"Methods: The effect of honey containing different concentrations to reactive oxygen and nitrogen species (RONS) produced by plasma jet in liquid medium using H2O2 as the indicator was conducted using chemical-enzymatic method. Plasma jet treatment was applied perpendicularly to wounds through holes punched in multiple micro-well dressings (MMD) using direct contact. Mice were divided into 4 groups: Hydrocolloid dressing alone (Control group or C), plasma application followed by hydrocolloid dressing (PH), plasma application followed by treatment with Indonesian honey (PI), and plasma application followed by treatment with Manuka honey (PM). Two full-thickness acute wounds were created on both sides of the mouse dorsum using a disposable biopsy punch. The wounds of the control group were covered with a hydrocolloid dressing (HD), whereas wounds in the other groups were covered with a HD from days 0 to 3, treated with plasma followed by 0.1 mL of the relevant honey or HD from days 4 to 7 post-wounding, and then were covered with a HD from days 8 to 14.";i:2;s:203:"Results: On day 7the wound area in the PI and PM groups was smaller than in the control group. On days 12, 13, and 14, however, the wound area in PI-treated mice was significantly larger than in PM mice.";i:3;s:130:"Conclusion: Manuka honey may better support plasma jet treatment than Indonesian honey on account of its chemical characteristics.";}
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