

Implication of Antioxidant Activity of *Musa cavendish* Crude Extract in Wound Healing

Pereira, A.¹, Catanhede, F.S.L.¹, Garcia, S.J.F.¹, Rosso, S.R.², Ferreira, S.R.S.², Pedrosa, R. C.¹

¹Depto. de Bioquímica; ²Depto. de Eng. Química e Eng. de Alimentos.
Universidade Federal de Santa Catarina, Santa Catarina, Brazil.

In recent years, oxidative stress has been implicated in wound healing. In Brazilian popular medicine banana peel has a history of utility in burn healing. This study aims to evaluate hydroethanol crude extract of *Musa Cavendish* peel (EMC), in wound healing process, considering its antioxidant potential. Balb/c mice (weight 20±2g, n=6) were cutaneous injured and were divided in control group (CG) which did not received treatment and treated group (TG) which received topically EMC (400mg/Kg/day) during 3, 6, 9 and 12 days. Antioxidant defenses and wound healing index were evaluated. Results were statistically significant when compared with CG: GSH content increased on days 3, 9 and 12 (CG: 0.46±0.18, 1.54±0.40, 0.63±0.2; TG: 1.67±0.62, 2.22±0.70, 4.37±0.95 $\mu\text{mol.mg protein}^{-1}$, respectively); carbonyl protein level was reduced on days 3 and 9 (CG: 0.61±0.02, 5.67±1.86; TG: 1.73±0.42, 0.73±0.25 $\text{nmol.mg protein}^{-1}$, respectively); lipid peroxidation was not statistical difference between CG and TG, except in mice treated until day 3 (CG: 314.91±55.83; TG: 151.12±59.44 $\text{nmol.mg protein}^{-1}$); CAT activity was reduced on days 6 and 12 (CG: 1.61±0.29, 1.76±0.16; TG: 1.02±0.31, 0.94±0.17 $\text{mmol.min}^{-1}.\text{mg protein}^{-1}$, respectively); GPx activity was reduced on days 6, 9 and 12 (CG: 8.32±0.06, 8.78±1.54, 9.97±1.49; TG: 1.34±0.96, 0.40±0.09, 0.21±0.07 $\mu\text{mol.min}^{-1}.\text{mg protein}^{-1}$); lesion reduction percentages (days 3, 6, 9 and 12: CG: 0.4±0.02, 7.36±0.15, 30.72±0.69, 77.46±0.83; TG: 15.38±0.33, 40.21±0.11, 50.28±0.46, 96.01±0.87%, respectively). These findings indicate that EMC has a wound healing potential that may be associated to antioxidant activity.

Key words: wound healing, *Musa cavendish*, antioxidant activity

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