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Ambonese banana stem sap (*Musa paradisiaca var. sapientum*) effect on PDGF-BB expressions and fibroblast proliferation in socket wound healing

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Abstract : TGF-β1 and PDGF-BB are potent chemotaxis, mitogen and diffentiation mesenchym cells active in wound healing. Ambonese banana stem sap has been commonly used historically for gastric bleeding, ulcus pepticum and pharyngitis as empirical agents.The aim of this study is to prove PDGF-BBexpression and fibroblast proliferation effect of ambonese banana stem sap (Musa paradiaca var sapientum) on socket wound healing post tooth extraction.The contains of banana stem sap was performed by thin-layer chromatography (TLC) and ultra-violet visible (UV-vis). We have used the post-test only control-group design with 54 male rats.Incisor and mandible teeth were extracted, and then the socket was treated water extract of ambonese banana stem sap 15, 30 and 60 mg dose in 4% hydroxypropylmethylcellulose (HPMC).The socket were observed at 2, 7 and 14 days on immunohistochemistry (IHC) and histology data. Result of this study that the water extract contains saponnins, flavonoids, tannins, anthraquinon and lectin at screening test. The data showed significant difference of PDGF-BB expressions and fibroblast proliferation at p=0,00 and p=0,00 on days 2 and 7after tooth extraction.The conclusion wasthe water extract of ambonese banana stem sap have potential to accelerate socket wound healing post tooth extraction on PDGF-BB expression and fibroblast proliferation.
Keywords: PDGF-BB, fibroblast,ambonese banana.

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