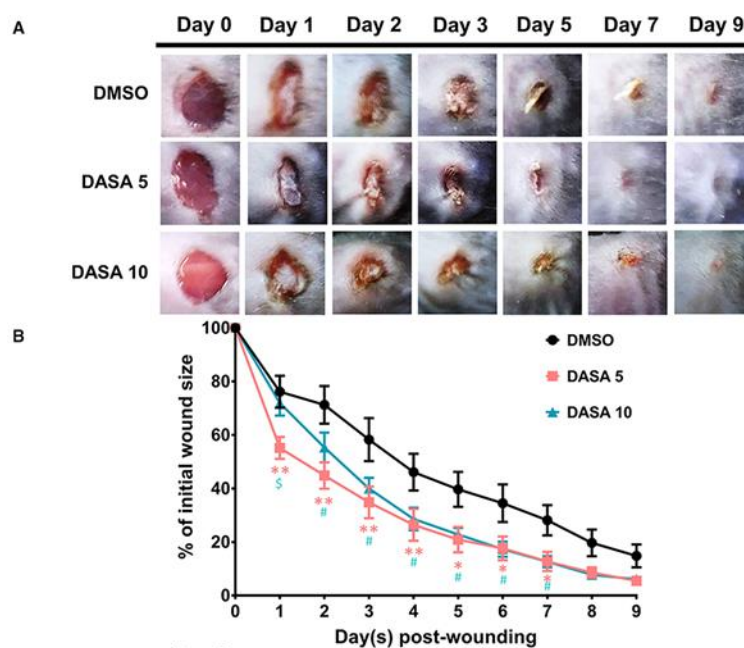


Dasatinib

Dasatinib is a selective tyrosine kinase receptor inhibitor that is used in the therapy of chronic myelogenous leukemia (CML) positive for the Philadelphia chromosome. It acts by inhibiting key proteins included in CML development, predominantly Bcr-Abl and Src. Moreover, dasatinib acts as a potent inhibitor of several tyrosine kinases, including Src family kinases (SFKs), cKIT, platelet-derived growth factor receptor, Tec, and Syk families. The inhibition of Src and Syk tyrosine kinase in platelets results in inhibition of platelet aggregation. The molecular mechanism of dasatinib may disrupt the vascular integrity during wound healing.

Whichiyo et al., (2021) proposed that dasatinib may be re-purposed and used as a drug for skin wound healing. The effect of dasatinib was investigated in model of a full-thickness excisional skin wound in mice. The results showed that dasatinib promotes the healing, in association with temporal bleeding, increased fibrinogen and fibrin accumulation, reduced inflammation and enhanced re-epithelialization and angiogenesis.



Dasatinib (DASA) at 5 and 10 mg/kg promotes skin wound healing in mice

(Adapt from Figure 2, Wichaiyo et al., 2021)

Reference:

Wichaiyo S, Svasti S, Supharattanasitthi W, Morales NP. Dasatinib induces loss of vascular integrity and promotes cutaneous wound repair in mice. *J Thromb Haemost.* 2021 Dec;19(12):3154-3167. doi: 10.1111/jth.15499.



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