

**Title:**

**“HDNC (1-hydroxy-5, 7-dimethoxy-2 naphthalene-carboxaldehyde) for rapid recovery of gastric damage in incision wound model of rats”**

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**Thank you**

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**Abstract:**

HDNC (1-hydroxy-5, 7-dimethoxy-2 naphthalene-carboxaldehyde) is a bioactive compound derived from *Aegle marmelos* (Rutaceae, 'Bael'). The current study was conducted to conclude the effect of HDNC on mechanical properties and collagen content of stomach and duodenal wounds in rats. This experiment included wound creation in rumen (non-glandular part) & corpus (oxyntic) part of stomach and duodenum. These wounds were analyzed after 0, 5, 15 & 30 days post-operation. HDNC treatment found to improve the mechanical strength of healing wounds of stomach and duodenum. Breaking strength and breaking energy were also augmented in presence of HDNC. Healing process was slower in initial post-operative phase (after 5 days). However in later days wound strength enhanced drastically. Direct relation was observed between total collagen content and mechanical strength. These findings point towards that the amplification of mechanical strength and collagen content in wounds has been the outcome of HDNC treatment.

**Keywords:**

Breaking strength

Breaking energy

Collagen content

HDNC

Wound healing