MeetingsPremium
MP Journal of Medical Research
Journal of poster communications · ISSN application in progress
Vol. 1 · 2026-0018
OPEN ACCESS

TYPE
Poster communication

SPECIALTY
Pharmacology & Therapeutics

PRESENTED AT
ICHSMT 2025, Tlemcen, 9–11 December 2025

PUBLISHED
7 October 2026

DOI
10.5281/zenodo.23219611

CORRESPONDENCE
Dr Zineb Maammeri

KEYWORDS
Hyssopus officinalis · gastric mucosal injury · phytotherapy · gastroprotection · hydroxycoumarin · hesperetin

LICENSE
CC BY 4.0. © The authors.

POSTER COMMUNICATION · PHARMACOLOGY & THERAPEUTICS

Harnessing Hyssopus officinalis stems to counteract gastric mucosal injuries: A novel phytotherapeutic avenue

Dr Nour-El-Houda Hamoud[1,2], Dr Zineb Maammeri[2]*

[1] Department of Animal Biology, Faculty of Nature and Life Sciences, Mentouri Brothers University Constantine 1, Algeria
[2] Laboratory of Pharmacology and Toxicology, Institute of Veterinary Sciences, Mentouri Brothers University Constantine 1, Algeria
* Corresponding author: Dr Zineb Maammeri

KEY MESSAGES

1. L'extrait d'acétate d'éthyle des tiges de Hyssopus officinalis protège efficacement la muqueuse gastrique contre les lésions induites par l'éthanol.
2. Les principaux composés bioactifs identifiés sont l'hydroxycoumarine et l'hespérétine, responsables des effets antioxydants et cytoprotecteurs.
3. L'extrait testé est sûr en toxicité aiguë et présente une efficacité comparable à celle de l'oméprazole.

ABSTRACT

Introduction. Gastric mucosal injury caused by ethanol is a key factor in ulcer development and remains a clinical challenge. Hyssopus officinalis L. stems, rich in antioxidant polyphenols, represent a promising but underused natural strategy for limiting such damage due to their antioxidant and gastroprotective properties.

Materials and methods. Gastric lesions were induced in rats by administering absolute ethanol. The protective effect of the ethyl acetate fraction of Hyssopus officinalis stems was tested at doses of 250 mg/kg and 500 mg/kg. Acute toxicity was assessed in mice following OECD guidelines. Mucosal damage was evaluated macroscopically and histologically, and phenolic/flavonoid compounds were identified by HPLC-ESI-MS/MS.

Results. Acute toxicity tests in mice showed no toxicity or mortality at tested doses. The ethyl acetate fraction of Hyssopus officinalis stems demonstrated significant gastroprotective effects against ethanol-induced gastric lesions, with protection rates of 76% at 250 mg/kg, 78% at 500 mg/kg, comparable to 86% protection by omeprazole (80 mg/kg).

Conclusion. The ethyl acetate extract of Hyssopus officinalis stems exhibits potent gastroprotective effects likely due to its high content of hydroxycoumarin and hesperetin. Its comparable efficacy to omeprazole and safety profile suggest it is a promising natural therapeutic candidate for gastric mucosal protection.

Online record, HD poster
journal.meetingspremium.com/p/2026-0018

POSTER



CITE THIS PUBLICATION

Hamoud NEH, Maammeri Z. Harnessing Hyssopus officinalis stems to counteract gastric mucosal injuries: A novel phytotherapeutic avenue [Poster]. MP J Med Res. 2026;1:2026-0018. doi:10.5281/zenodo.23219611

Vancouver format · APA, BibTeX and RIS on the online record

Original poster in high definition on the online record.

SOURCE
Presented at ICHSMT 2025, Tlemcen, 9–11 December 2025. Republished with the agreement of the authors.

PROCESS
Record checked by the editorial team, approved by the corresponding author, then reviewed by the journal's editorial board.

INDEPENDENCE
Partners and advertisers take no part in scientific selection.

© The authors. Open access publication under the Creative Commons Attribution 4.0 International (CC BY 4.0) — https://creativecommons.org/licenses/by/4.0/ license. Published by MeetingsPremium LLC, 75 East 3rd Street, Sheridan, WY 82801, United States.