



# Mohamad Jabbar Makki

Pharmacist | MSc in Pharmacy Sciences | Academic & Clinical Experience

## PERSONAL INFORMATION

**Name:** Mohammad Jabbar Makki AL-Hassany

**Title:** Pharmacist- Master's degree in Sciences of Pharmacy

**Date of Birth:** 15/11/1990

**Place of Birth:** IRAQ - Nasiriyah

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## EDUCATION

**2022-2024:** Master's degree in the sciences of pharmacy from Basrah University-College of Pharmacy

**2008-2013:** Bachelor's degree in clinical & chemical pharmacy from Baghdad University-College of Pharmacy

## WORK EXPERIENCE

**2025:** Lecturer with Alayan University-college of Pharmacy

**2023:** Lecturer with Basrah University-college of Pharmacy

**2018:** Assistant teacher with the National University of Science & Technology-College of Pharmacy

**2016:** Senior clinical pharmacist at the Ministry of Health/Nasiriyah Cardiac Center

**2014:** As a rotator clinical pharmacist at the Ministry of Health/Al-Hussein Teaching Hospital

## CERTIFICATE

Training of trainers (TOT) certificate from THI-QAR University, 2021

Key Account Management in Dubai 2017

Future prospects of pharmacy practice 2016

Professional communication skills in Amman 2014

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## COMPUTER AND ANALYSIS SKILLS

**Operating systems:** Windows and Microsoft Office programs

**Citation Programs:** EndNote and Mendeley

**Statistical programs:** SPSS Statistics

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## PUBLICATIONS

Mohamad, J. M. (2025) Evaluate the Lung-Protective Effects of Hidrosmin and/or Vitamin C in Reducing Lung Fibrosis Caused by Bleomycin in Rats

<https://www.scopus.com/pages/publications/105001808562?origin=resultslist>

Mohamad, J. M. (2024) Investigate the potential lung-protective effects of Hidrosmin and/or Vitamin C in rats with Bleomycin-induced lung fibrosis.

[https://www.researchgate.net/publication/376543210\\_Effect\\_of\\_Hidrosmin\\_and\\_Vitamin\\_C\\_on\\_Lung\\_Fibrosis](https://www.researchgate.net/publication/376543210_Effect_of_Hidrosmin_and_Vitamin_C_on_Lung_Fibrosis)

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# Evaluate the Lung-Protective Effects of Hidrosmin and/or Vitamin C in Reducing Lung Fibrosis Caused by Bleomycin in Rats

*Clinical Infectology and Parasitology* • Article • Open Access • 2025 • DOI: 10.34883/PI.2025.14.1.050

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## Abstract

**Introduction.** Bleomycin is a chemotherapeutic drug categorized as a glycopeptide antibiotic. It is frequently used in the treatment of several types of malignancies. However, it is associated with significant lung injury. Hidrosmin is a synthetic flavonoid that has pleiotropic effects including anti-ischemic, antihypertensive, antioxidant activities, and anti-inflammatory. Vitamin C is a water-soluble vitamin that can reduce unstable species of oxygen, nitrogen, and sulphur radicals and regenerate other antioxidants in the body. **Purpose.** To investigate the protective effects of hidrosmin and/or vitamin C, and the histology of lung tissue affected by bleomycin. **Materials and methods.** Forty mature male rats their weight ranged from 250–280 gm were divided into five groups; Group 1: control group, rats with DMSO orally 0.5 ml/kg for twenty days. Group 2: Rats with BLE intratracheally 5 mg/kg on day seven of the experiment. Group 3: Rats with hidrosmin orally 300 mg/kg/day daily for twenty days and BLE intratracheally 5 mg/kg on day seven. Group 4: Rats with vitamin C orally 100 mg/kg/day daily for twenty days and BLE intratracheally 5 mg/kg on day seven. Group 5: Rats with a combination of hidrosmin orally 300 mg/kg/day and vitamin C orally 100 mg/kg/day daily for twenty days and BLE intratracheally 5 mg/kg on day seven. **Results.** On day twenty, animals were killed for the measurement of TNF- $\alpha$ , TGF- $\beta$ , GSH, and TAS. Group 2 shows a highly significant elevation in TNF- $\alpha$  and TGF- $\beta$  levels, and a highly significant reduction in GSH and TAS levels ( $P < 0.001$ ) compared to Group 1; furthermore, Group 5 shows a highly significant reduction in TNF- $\alpha$  and TGF- $\beta$  levels and a highly significant elevation in GSH and TAS levels ( $P < 0.001$ ), compared to Group 3 and Group 4. Hidrosmin has a lung protective effect against bleomycin-induced lung toxicity by prevented the activation of NF- $\kappa$ B and decreasing the levels of pro-inflammatory cytokines, also Hidrosmin improves histopathological finding when compared with bleomycin alone. Moreover, the combination of hidrosmin and vitamin C produces a synergistic advantage compared to using each alone. **Conclusions.** Bleomycin stimulates the production of certain pro-inflammatory, such as TNF- $\alpha$  and, TGF- $\beta$  that may lead to lung fibrosis. Additionally, synergistic effects of Hidrosmin and Vitamin C include lung protective effects against BLE-induced lung toxicity. © 2025, Professionalnye Izdaniya. All rights reserved.

## **Investigate the potential lung-protective effects of Hidrosmin and/or Vitamin C in rats with Bleomycin-induced lung fibrosis.**

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**DOI:** <https://doi.org/10.23975/bjvr.2024.149340.1082>

**Received:** 5 May 2024 **Accepted:** 13 June 2024.

### **Abstract**

As a chemotherapeutic agent, bleomycin is a glycopeptide antibiotic that is used to treat cancer. However, it is linked lung toxicity. Hidrosmin is a man-made flavonoid that reduces inflammation and protects cells from damage. Vitamin C is a water-soluble vitamin with the potential to reduce lung fibrosis. The experiment randomly assigned forty mature male rats into five groups. Group 1: control group with DMSO (5 ml/kg) for 20 days; Group 2: bleomycin intratracheally (5 mg /kg) on day seven of the experiment, Group 3; hidrosmin orally (300 mg/kg/day) for 20 days + BLE intratracheally (5 mg/kg) on day seven; Group 4: vitamin C orally (100 mg/kg/day) for 20 days + BLE intratracheally (5 mg/kg) on day seven; Group 5: hidrosmin orally (300 mg/kg/day) + vitamin C orally (100 mg/kg/day) daily for 20 days; and BLE (5 mg/kg) on day seven. The experiment randomly assigned forty mature male rats into five groups. The first group got DMSO (5 ml/kg) every day as a control. The second group got bleomycin intratracheally (5 mg/kg) on the seventh day of the experiment. The third group got hidrosmin orally (300 mg/kg/day) for 20 days and BLE intratracheally (5 mg/kg) on the seventh day. The fourth group got vitamin C orally (100 mg/kg/day) for 20 days and BLE intratracheally (5 mg/kg) on day seven. The fifth group got hidrosmin orally (300 mg/kg/day) plus vitamin C orally (100 mg/kg/day) every day for 20 days and BLE intratracheally (5 mg/kg) on the seventh day.

**Keywords:** hidrosmin, vitamin C, bleomycin, lung toxicity, rats.