Olive (Olea europaea) leaf methanolic extract prevents HCl/ethanol-induced gastritis in rats by attenuating inflammation and augmenting antioxidant enzyme activities

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# The Author's Short Biographical Summary

Name: Ahmed Esmat Abdel Moneim.

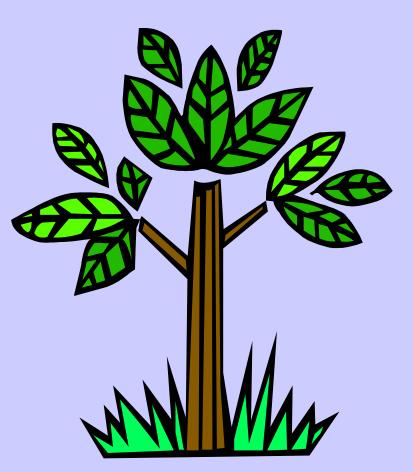
PhD.

- Associate Professor of Physiology, Helwan University, Cairo, Egypt.
- TWAS-ARO and TYAN member.
- My current research topic is include the role of medical plants and natural products in preventing and treating different diseases such as heavy metals toxicity, cancer, diabetes, neurodegenerative diseases, etc.

#### Gastric ulcer

- Gastritis is characterized by inflammation of the lining epithelial layer and the chronic gastritis is considered as a pre-cancer lesion.
- Gastritis is leading to abdominal pain, heart burn, possible bleeding, and different symptoms.
- The complex **etiology** of gastritis comprise microorganism infection, alcohol consumption, emotional distress, free radicals, and certain medicines such as steroidal and non-steroidal anti-inflammatory drugs.

## Why medicinal plants



- Powerful ingredients.
- Only 15% of estimated plant species on earth have been investigated for possible Medicinal uses.
- The world Health organization estimates that 80% of the earth population today depends on plants to treat common diseases.
- Traditional Healers are good resources for scientific based research.

### Phytochemicals



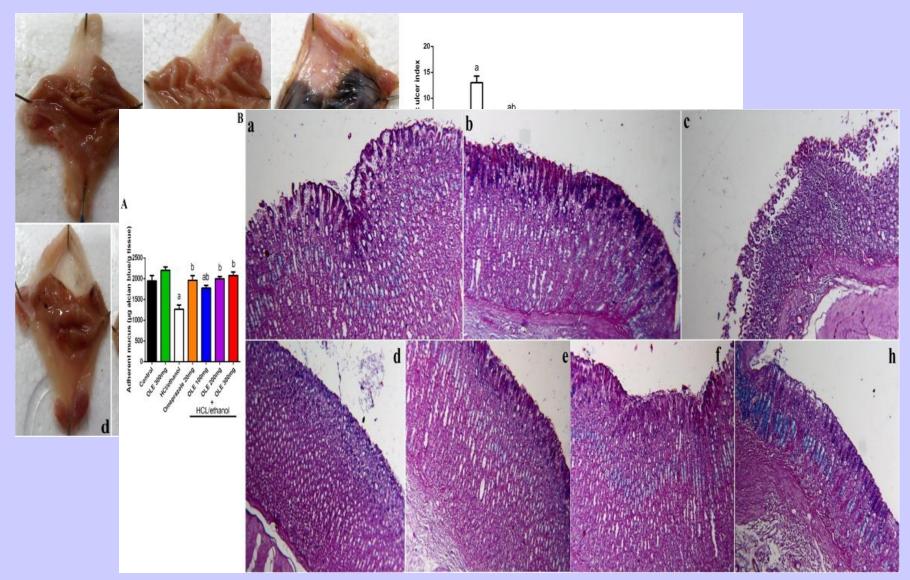
 No magic, diets high in fruits, and grains, reduce the risk of a number of diseases, including cancer, diabetes, high blood pressure.

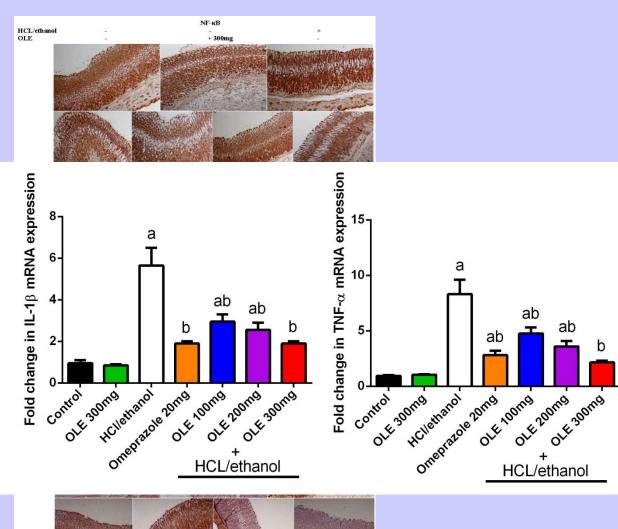
Phytochemicals are the biologically active substances in plants that are responsible for giving them color, flavor and natural disease resistance.

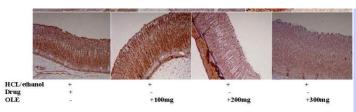
## Olea europaea

- Olive tree is a longevous tree with economical, social, and cultural values to the inhabitants of Mediterranean basin.
- The leaves of olive tree have been used for many centuries in the traditional medicine to cure diabetes and malaria symptoms.
- The medicinal properties of olive leaves comes from its polyphenols namely, **oleuropein** and **hydroxytyrosol**, those polyphenols have antioxidant, hypoglycaemic, antitumor, hypotensive, antimicrobial, and antiinflammatory activities.

### **Results**







Fold change in iNOS mRNA expression

5-

4

3-

2-

a

Omegratale Jamos

**HCllettanol** 

OLE 300mg

Control

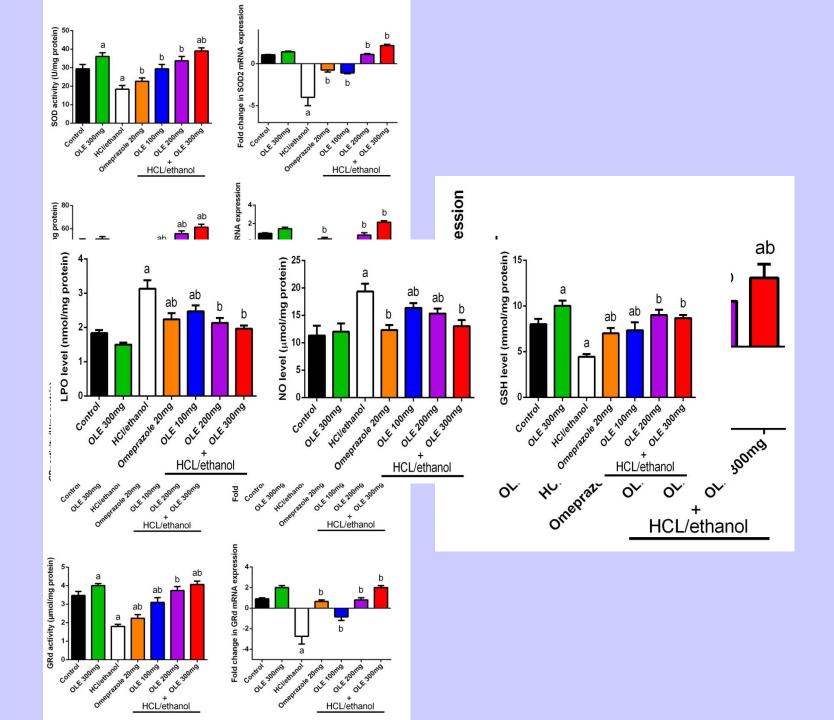
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OLE Johns

ab

OLE 200ms 300ms

HCL/ethanol



#### **Conclusion**

In conclusion, my study highlights evidences for the gastroprotective activity of OLE in a rat model of HCl/ethanol-induced gastric ulcer. These favorable activities were mediated via restraining of gastric inflammation and maintaining the antioxidant activity, chiefly through NF-kB inhibition and preventing the activated leukocytes mobilization into the stomach tissue. Interestingly, the gastroprotective benefit of OLE was comparable to this exerted by the reference antiulcer omeprazole.

# THANK YOU