Angélica - Angelica Archangelica

Princípio Ativo: fitoestrógenos, Fotocumarínicos (3, 7, 8)

Uso Popular:

• usada na reposição hormonal da menopausa;
• útil nas dispepsias por diminuição do suco gástrico estomacal,
  evita a formação de gases estomacais e intestinais (carminativo);
• anticonvulsivante, relaxante muscular e sedativa.

Uso Cientificamente Comprovados ou em Estudos:

• Efeito hepatoprotetor, antioxidante hepático e citoprotetor (1)
• Protege o estômago, prevenindo a formação de úlceras gástricas (2)
• Efeito colateral: fototoxicidade (3)
• Efeito anti mutagênico (4, 5)
• Efeito bloqueador dos canais de cálcio (6)

Biblioteca

Yeh ML, Liu CF, Huang CL, Huang TC.
National Taipei College of Nursing, Taipei, Taiwan.

Angelica archangelica (AAA) has been effectively used in folk medicines as a remedy against stomachal and intestinal disturbances, arthritic disease, etc. However, there is still lack of scientific proof about its antioxidant capability. This study aimed at investigating the effects of total AAA against chronic ethanol-induced hepatotoxicity. ICR mice were divided into five groups, each consisting of 10 animals. A single dose of ethanol (70%, 0.1 ml, p.o.) was used to induce hepatotoxicity in these mice which resulted in a significant elevation of the activities of serum GOT and GPT. Treatment of mice with AAA (10, 25, and 50 mg/kg p.o.) after 2 weeks ameliorated the ethanol-induced hepatotoxicity effects. Hepatotoxicity was evidenced by a significant increase in hepatic lipid peroxidation manifested as the presence of malondialdehyde. It was found that AAA inhibits the malondialdehyde formation in mouse liver homogenates both in vitro and in vivo. AAA is cytoprotective agent effective against chronic ethanol-induced hepatotoxicity, possibly through inhibition of the production of oxygen free radicals that cause lipid peroxidation, and hence indirectly protects the liver from oxidative stress. Copyright 2003 S. Karger AG, Basel

Khayyal MT, el-Ghazaly MA, Kenawy SA, Seif-el-Nasr M, Mahran LG, Kafafi YA, Okpany SN.

Department of Pharmacology, Faculty of Pharmacy, Cairo University, Cairo, Egypt.
Extracts from the plants Iberis amara, Melissa officinalis, Matricaria recutita, Carum carvi, Mentha x piperita, Glycyrrhiza glabra, Angelica archangelica, Silybum marianum and Chelidonium majus, singly and combined in the form of a commercial preparation, STW 5 (Iberogast) and a modified formulation, STW 5-II, lacking the last 3 constituents, were tested for their potential anti-ulcerogenic activity against indometacin induced gastric ulcers of the rat as well as for their antisecretory and cytoprotective activities. All extracts produced a dose dependent anti-ulcerogenic activity associated with a reduced acid output and an increased mucin secretion, an increase in prostaglandin E2 release and a decrease in leukotrienes. The effect on pepsin content was rather variable and did not seem to bear a relationship with the anti-ulcerogenic activity. The most beneficial effects were observed with the combined formulations STW 5 and STW 5-II in a dose of 10 ml/kg b.w., comparable with cimetidine in a dose of 100 mg/kg b.w. The anti-ulcerogenic activity of the extracts was also confirmed histologically. The cytoprotective effect of the extracts could be partly due to their flavonoid content and to their free radical scavenging properties.

3. A bioassay using Artemia salina for detecting phototoxicity of plant coumarins.
Department of Pharmacy, University of Helsinki, Finland.

Artemia salina (brine shrimp) has been successfully used for toxicity testing, and a screening test for phototoxicity has been developed based on this method. The ability of the method to test the phototoxic potential of seven known compounds was investigated. Athamantin (an angular furanocoumarin) and umbelliferone (a simple coumarin) showed no phototoxicity, while linear furanocoumarins exhibited phototoxic activity in the following order: psoralen > bergapten > peucedanin > xanthotoxin. The applicability of this method was also tested in screening the phototoxicity of plant material. Six plants from Apiaceae [Aegopodium podagraria L., Anethum graveolens L., Angelica archangelica L., Levisticum officinialis Koch, Petroserinum crispum (P. Mill) A. W. Hill., and Peucedanum palustre (L.) Moench] and one from Rutacea (Ruta graveolens L.) were selected, all of them known to contain furanocoumarins. Extracts from leaves collected at different times during the growth period were used in the screening. Our results were in accordance with the furanocoumarin content of these plants and with the results of other phototoxicity tests. The Artemia salina method proved to be rapid, simple and inexpensive, and is therefore ideal in the initial biological screening of large numbers of samples for simultaneous detection of both toxicity and phototoxicity.

4. [Antimutagenic properties of Angelica archangelica L]
[Article in Russian]

Salikhova RA, Poroshenko GG.

The antimutagenic activity of Angelica archangelica L. aqueous and alcohol extracts of thio-TEPA against mutagenicity was examined by the micronucleus test in murine bone marrow cells. The reduction of Thio-TEPA's mutagenic activity was more profound when the extracts were injected 2 hours before thio-TEPA treatment, as seen during simultaneous treatment. The observed reduction of micronuclear frequencies was as high as 77%.

5. [Study of the antimutagenic properties of Angelica archangelica by the micronucleus test]
[Article in Russian]

Salikhova RA, Dulaatova ShN, Poroshenko GG.
The antimutagenic activity Angelica archangelica L. water and alcohol extracts thio-tepa against mutagenicity was investigated by the micronucleus test in mouse bone marrow and peripheral blood cells. The reduction of thio-tepa mutagenic activity was more prominent when the extracts were injected 2-hours before thio-tepa treatment as it could be seen at the simultaneous treatment. The observed reduction of micronucleus frequencies was up to 77%. No genotoxic effects of Angelica extracts had been seen at the concentrations 50-100 mg/kg.

6. Choice of solvent in the extraction of Angelica archangelica roots with reference to calcium blocking activity.
Harmala P, Vuorela H, Tornquist K, Hiltunen R.

Department of Pharmacy, University of Helsinki, Finland.

Twenty solvents were tested in the extraction of compounds from the roots of Angelica archangelica L. (Apiaceae), and the calcium-antagonistic activity of the extracts was investigated. Special attention was paid to the physical and chemical properties of the solvents and their extraction abilities. The calcium antagonistic effect of the extracts was investigated by measuring the inhibition of depolarization-induced Ca^2+ uptake in rat pituitary GH4C1 cells. The criteria used in determining the best solvents for the extraction were the yield and the biological activity of the extract, as well as the amount of nonpolar compounds in the extract. The final criterion used in selecting the solvent was its usability with reference to boiling point, chemical interactions (e.g. methylation), etc. Chloroform was found to be the best solvent for the extraction of nonpolar, biologically active compounds from the roots of A. archangelica.

7. [Isolation of phellopterin from the fruits of Heracleum mantegazzianum (Sommier et Levier) and Angelica archangelica L. 4. On furocoumarins]
[Article in German]
Beyrich T.

8. [Isolation of a new coumarin and paper chromatography of coumarin substances in Angelica Archangelica L.]
Arch Pharm Ber Dtsch Pharm Ges. 1956 Feb;289(2):81-6.
[Article in German]
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