

Nº-111

FACULTAD DE QUIMICA
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Y BIBLIOTECA

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BIBLIOGRAFIA

**TEMA : Uncaria Tomentosa, Uncaria Guinensis,
Uña de gato**

FECHA : 12/10/99

ETHNOBOTANY: WORLDWIDE USES

| | |
|-----------------|---|
| Colombia | Dysentery, Gonorrhea |
| Guiana | Dysentery |
| Peru | Abscesses, Arthritis, Asthma, Blood Cleanser, "Bone Pains", Cancer, Cirrhosis, Contraceptive, Cytostatic, Diabetes, Diarrhea, Disease Prevention, Dysentery, Fevers, Gastric Ulcers, Gastritis, Gonorrhea, Hemorrhages, Inflammations, Intestinal Affections, Kidney Cleanser, Menstrual Irregularity, Rheumatism, Skin Disorders, Stomach, Urinary Tract Disorders, Tumors, Wounds |
| Suriname | Dysentery, Intestinal Affections, Wounds |

Footnotes:

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Quoted References

1. "Una de Gato is considered one of the most important botanicals in the rainforest. In Peru, Una de Gato tea is used as a medicinal herb with almost unlimited curative properties. This herb is a powerful cellular rejuvenator. It has been used for the treatment of gastritis (inflammation of the stomach), ulcers, cancer, arthritis, rheumatism, irregularities of the female cycle, and acne. It is also used to treat organic depression. External applications of Una de Gato include the treatment of wounds, fungus, fistulas and hemorrhoids. European research shows that Una de Gato activates the immune system by increasing lymphocytic (white blood cell) activity. Other sources commend the effectiveness of leaf compresses against venereal

11. "The most powerful immune-enhancing herb is Una de gato. Research from 1970 through the present (by Klaus Keplinger and others in Austria, Germany, England, Hungary and Italy) has shown beneficial effects of Una de gato in the treatments for cancer, genital herpes, systemic candidiasis and AIDS. Six alkaloids isolated from the plant root have been found to significantly enhance the ability of the white blood cells to attack, engulf and digest harmful micro-organisms or foreign matter, thus assisting the process of phagocytosis in the body. My own preliminary studies on the immune-enhancing properties of Una de gato have uncovered the following:

1. An ability to stop viral infections in the early stages (when an individual feels an infection starting and/or already has a fever, fatigue, muscle aches and sore throat). One patient reported that his viral infection symptoms cleared within 8 hours after taking Una de gato.
2. An ability to help patients who are chemically-sensitive, decreasing the fatigue which accompanies this problem and reducing the severity of symptoms.
3. An ability to significantly enhance emotional stability, even in the midst of extreme stress from personal problems. One patient commented, "I just can't get depressed anymore, no matter what happens. It's this Amazon herb!"
4. An ability to help the body fight infections better in AIDS patients. One patient reported, "I ran out of the fungicide for the skin rash on my face and used a bacteriocidal agent until I could get a new prescription. The bactericide didn't work and the rash started coming back. I used Una de gato and after just three days, the rash cleared up on my face. I feel that it's my own body working against the fungus as a result of the Una de gato."
5. An ability to decrease the visible size of some skin, tumor or cyst growths within two weeks.

Una de gato also has anti-tumor, anti-inflammatory and anti-oxidant properties. These properties explain its usefulness in the treatment of arthritis, bursitis, allergies and numerous bowel and intestinal disorders. There have been several case histories cited in literature where Una de gato has been linked with the remission of intractable brain and other tumors and give relief to the side-effects of chemotherapy."

**For even more referenced quotes on Cat's Claw / Una de Gato,
follow this link to the Documentation book on Cat's Claw from Direct
Source**

Available Cat's Claw Products

Clinical Abstracts Available at Medline

Lemaire I, et al.

Stimulation of interleukin-1 and -6 production in alveolar macrophages by the neotropical liana, *Uncaria tomentosa*.
J Ethnopharmacol. 1999 Feb;64(2):109-15.

[MEDLINE record in process]
PMID: 10197746; UI: 99211603.

Keplinger K, et al.

Uncaria tomentosa (Willd.) DC.--ethnomedicinal use and new pharmacological, toxicological and botanical results.

J Ethnopharmacol. 1999 Jan;64(1):23-34.

[MEDLINE record in process]

PMID: 10075119; UI: 99173441.

Wurm M, et al.

Pentacyclic oxindole alkaloids from Uncaria tomentosa induce human endothelial cells to release a lymphocyte-proliferation-regulating factor.

Planta Med. 1998 Dec;64(8):701-4.

PMID: 9933988; UI: 99132751.

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Antiinflammatory actions of cat's claw: the role of NF-kappaB.

Aliment Pharmacol Ther. 1998 Dec;12(12):1279-89.

[MEDLINE record in process]

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Sheng Y, et al.

Induction of apoptosis and inhibition of proliferation in human tumor cells treated with extracts of Uncaria tomentosa.

Anticancer Res. 1998 Sep-Oct;18(5A):3363-8.

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Depletion of specific binding sites for estrogen receptor by Uncaria tomentosa.

Proc West Pharmacol Soc. 1998;41:123-4. No abstract available.

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J Ethnopharmacol. 1997 Aug;57(3):183-7.

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Mutagenic and antimutagenic activities of Uncaria tomentosa and its extracts.

J Ethnopharmacol. 1993 Jan;38(1):63-77.

PMID: 8479203; UI: 93240868.

Aquino R, et al.

Plant metabolites. New compounds and anti-inflammatory activity of Uncaria tomentosa.

J Nat Prod. 1991 Mar-Apr;54(2):453-9.

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Aquino R, et al.

New polyhydroxylated triterpenes from Uncaria tomentosa.

J Nat Prod. 1990 May-Jun;53(3):559-64.

PMID: 2213029; UI: 91011429.

Aquino R, et al.

Plant metabolites. Structure and in vitro antiviral activity of quinovic acid glycosides from *Uncaria tomentosa* and *Guettarda platypoda*.

J Nat Prod. 1989 Jul-Aug;52(4):679-85.

PMID: 2553871; UI: 90039328.

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[Phytochemical and biological study of *Uncaria tomentosa*].

Boll Soc Ital Biol Sper. 1989 Jun;65(6):517-20. Italian.

PMID: 2611012; UI: 90122218.

Wagner H, et al.

[The alkaloids of *Uncaria tomentosa* and their phagocytosis-stimulating action].

Planta Med. 1985 Oct;(5):419-23. German. No abstract available.

PMID: 4080851; UI: 86094772.

Available Cat's Claw Products



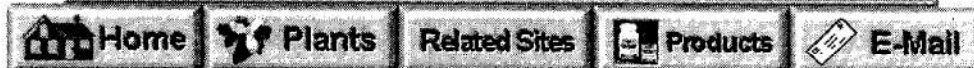
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J Altern Complement Med 1999 Apr;5(2):143-51

Uncaria tomentosa (Willd.) D.C.: cat's claw, una de gato, or saventaro.

Reinhard KH

Apotheke am Oswaldgarten, Giessen, Germany.

Recently, *Uncaria tomentosa* (Willd.) D.C. has become known as a healing plant with an ethnomedicinal background. There have been several reports on its constituents, in particular, oxindole alkaloids. It was found that 2 chemotypes of *Uncaria tomentosa* with different alkaloid patterns occur in nature. The roots of one type contain pentacyclic oxindoles and the other contains tetracyclic oxindoles. This difference should be considered when the plant is to be used for medicinal applications. Tetracyclic oxindole alkaloids act on the central nervous system, whereas pentacyclic oxindole alkaloids affect the cellular immune system. Recent studies have shown that the tetracyclic alkaloids exert antagonistic effects on the action of the pentacyclic alkaloids. Mixtures of these 2 types of drugs are therefore unsuitable for medicinal uses.

Publication Types:

Review

Review, tutorial

J Ethnopharmacol 1999 Feb;64(2):109-15

Stimulation of interleukin-1 and -6 production in alveolar macrophages by the neotropical liana, *Uncaria tomentosa*.

Lemaire I, Assinewe V, Cano P, Awang DV, Arnason JT

Department of Cellular and Molecular Medicine, University of Ottawa, Ont., Canada.

Two extracts of different collections of the traditional medicine una de gato (*Uncaria tomentosa*) from Peru were characterized by High Pressure Liquid Chromatography as containing approximately 6 mg/g total oxindole content prior to studies with alveolar macrophages. The plant preparations greatly stimulated IL-1 and IL-6 production by rat macrophages in a dose dependent manner in the range of 0.025-0.1 mg/ml. They were also able to enhance IL-1 and -6 in lipopolysaccharide-stimulated macrophages. The results suggest a strong immunostimulant action of this plant.

J Ethnopharmacol 1999 Jan;64(1):23-34

Uncaria tomentosa (Willd.) DC.--ethnomedicinal use and new pharmacological, toxicological and botanical results.

Keplinger K, Laus G, Wurm M, Dierich MP, Teppner H

Immodal Pharmaka GmbH, Volders, Austria.

The medicinal system of the Ashaninka Indians in Peru is portrayed. Three categories of medical disorders and healers are recognized. A human is viewed to consist of a physical and a spiritual being who communicate with each other by means of a regulating element. The significance of *Uncaria tomentosa* (Willd.) DC. (Rubiaceae), locally known as una de gato, in traditional medicine is emphasized by its exclusive use by priests to influence this regulation. Pharmacological and toxicological results obtained with extracts or isolated compounds are summarized. Pentacyclic oxindole alkaloids stimulate endothelial cells in vitro to produce a lymphocyte-proliferation-regulating factor. Tetracyclic oxindole alkaloids act as antagonists. A significant normalization of lymphocyte percentage was observed in vivo although total leucocyte numbers did not change.

Publication Types:

Review

Review, tutorial

Planta Med 1998 Dec;64(8):701-4

Pentacyclic oxindole alkaloids from *Uncaria tomentosa* induce human endothelial cells to release a lymphocyte-proliferation-regulating factor.

Wurm M, Kacani L, Laus G, Keplinger K, Dierich MP

Institut für Hygiene, Leopold-Franzens-Universität Innsbruck, Austria.

In the present study we show that pentacyclic but not tetracyclic oxindole alkaloids from *Uncaria tomentosa* (Willd.) DC. (Rubiaceae) induced EA.hy926 endothelial cells to release some yet to be determined factor(s) into the supernatant; this factor was shown to significantly enhance proliferation of normal human resting or weakly activated B and T lymphocytes. In contrast, proliferation of normal human lymphoblasts and of both the human lymphoblastoid B cell line Raji and the human lymphoblastoid T cell line Jurkat was inhibited significantly while cell viability was not affected. Tetracyclic oxindole alkaloids dose-dependently reduce the activity of pentacyclic oxindole alkaloids on human endothelial cells.

Anticancer Res 1998 Sep-Oct;18(5A):3363-8

Induction of apoptosis and inhibition of proliferation in human tumor cells treated with extracts of *Uncaria tomentosa*.

Sheng Y, Pero RW, Amiri A, Bryngelsson C

Department of Cell and Molecular Biology, University of Lund, Sweden. Yezhou.Sheng@wblab.lu.se

Growth inhibitory activities of novel water extracts of *Uncaria tomentosa* (C-Med-100) were examined *in vitro* using two human leukemic cell lines (K562 and HL60) and one human EBV-transformed B lymphoma cell line (Raji). The proliferative capacities of HL60 and Raji cells were strongly suppressed in the presence of the C-Med-100 while K562 was more resistant to the inhibition. Furthermore, the antiproliferative effect was confirmed using the clonogenic assay, which showed a very close correlation between C-Med-100 concentration and the surviving fraction. The suppressive effect of *Uncaria tomentosa* extracts on tumor cell growth appears to be mediated through induction of apoptosis which was demonstrated by characteristic morphological changes, internucleosomal DNA fragmentation after agarose gel electrophoresis and DNA fragmentation quantification. C-Med-100 induced a delayed type of apoptosis becoming most dose-dependently prominent after 48 hours of exposure. Both DNA single and double strand breaks were increased 24 hours after C-Med-100 treatment, which suggested a well-established linkage between the DNA damage and apoptosis. The induction of DNA strand breaks coupled to apoptosis may explain the growth inhibition of the tumor cells by *Uncaria tomentosa* extracts. These results provide the first direct evidence for the antitumor properties of *Uncaria tomentosa* extracts to be via a mechanism of selective induction of apoptosis.

J Ethnopharmacol 1997 Aug;57(3):183-7

Evaluation of the toxicity of *Uncaria tomentosa* by bioassays *in vitro*.

Santa Maria A, Lopez A, Diaz MM, Alban J, Galan de Mera A, Vicente Orellana JA, Pozuelo JM

Departamento de Toxicología, Instituto de Salud Carlos III, Majadahonda, Madrid, Spain.

Aqueous extracts of *Uncaria tomentosa* (Willdenow ex Roemer and Schultes) DC. (Rubiaceae) ('Una de gato'), were analyzed for the presence of toxic compounds in Chinese hamster ovary cells (CHO) and bacterial cells (*Photobacterium phosphoreum*). Toxicity was evaluated by four systems: Neutral red assay (NR), total protein content (KB), tetrazolium assay (MTT) and Microtox test. The extracts of *U. tomentosa* did not show toxicity *in vitro* at the concentrations tested. Testing *in vitro* could be a valuable tool for evaluating toxicity of medicinal plants.

J Nat Prod 1991 Mar-Apr;54(2):453-9

Plant metabolites. New compounds and anti-inflammatory activity of *Uncaria tomentosa*.

Aquino R, De Feo V, De Simone F, Pizza C, Cirino G

Dipartimento di Chimica delle Sostanze Naturali, Università degli Studi di Napoli Federico II, Italy.

Bioassay-directed fractionation of the anti-inflammatory extracts of *Uncaria tomentosa*, using the carrageenan-induced edema in rat paw, has led to the isolation of a new quinovic acid glycoside 7 as one of the active principles. Furthermore, a new triterpene 8 was isolated as its methyl ester. The structures were elucidated by spectral and chemical studies.

J Nat Prod 1990 May-Jun;53(3):559-64

New polyhydroxylated triterpenes from *Uncaria tomentosa*.

Aquino R, De Simone F, Vincieri FF, Pizza C, Gacs-Baitz E

Dipartimento di Chimica delle Sostanze Naturali, Università degli Studi di Napoli, Italy.

Three novel polyhydroxylated triterpenes have been isolated from *Uncaria tomentosa*. Their structures were established as 1, 2, and 3 by detailed spectral studies including ¹H-¹³C correlations via long range couplings using the INAPT pulse sequence, nOeds, and 2D ¹H-¹³C direct chemical shift correlation (HETCOR) nmr techniques.

J Nat Prod 1989 Jul-Aug;52(4):679-85

Plant metabolites. Structure and in vitro antiviral activity of quinovic acid glycosides from *Uncaria tomentosa* and *Guettarda platypoda*.

Aquino R, De Simone F, Pizza C, Conti C, Stein ML

Dipartimento di Chimica delle Sostanze Naturali, Università di Napoli, Italy.

A reinvestigation of the bark of *Uncaria tomentosa* afforded, in addition to the major quinovic acid glycosides 1-3, three further glycosides 4-6. The structures were elucidated by spectral and chemical studies. Furthermore, a series of antiviral tests were performed on all these glycosides and on the related glycosides 7-9, previously isolated from *Guettarda platypoda*.

Boll Soc Ital Biol Sper 1989 Jun;65(6):517-20

[Phytochemical and biological study of *Uncaria tomentosa*].

[Article in Italian]

Senatore A, Cataldo A, Iaccarino FP, Elberti MG

The investigation on steroidal fraction of *Uncaria tomentosa*, commonly called *Una de gato*, showed the presence of beta-sitosterol (60%), stigmasterol, and campesterol. The percentage of sterols have been carried out by GLC. The spectroscopic data ¹H-NMR and MS of the three compounds are also reported, with the beta-sitosterol as the main sterol. Preliminary pharmacological investigations prove a moderate antiinflammatory activity.

Planta Med 1985 Oct;(5):419-23

[The alkaloids of *Uncaria tomentosa* and their phagocytosis-stimulating action].

[Article in German]

Wagner H, Kreutzkamp B, Jurcic K