AB Roots of Ptychopetalum olacoides Bentham (Olacaceae), known as Marapuama, are prepared in alcoholic infusion for treating "nervous weakness" by Amazonian Caboclos. "Nervous weakness" can be described as a syndrome having several symptoms, among which the following are emphasized: lassitude, depression, sexual impotence and tremors. Based on ethnopharmacological data, we have considered the hypothesis that PO may have psychopharmacological effects, by interacting with different neurotransmitter systems: (i) the dopaminergic system, considering its use as an appetite modulator and to counteract tremors, as well as for its alleged sexual arousing properties; (ii) the noradrenergic system, again for its use against tremors and/or depression; and/or (iii) the serotonergic system, also related to depression and sexual arousal. This paper reports that P. olacoides hydroalcoholic extract potentiated yohimbine-induced lethality, reversed reserpine-induced ptosis and prevented apomorphine-induced stereotypy the data indicates that P. olacoides has central nervous system effects and supports the hypothesis of its interaction with dopaminergic and/or noradrenergic systems.
High-performance liquid chromatography-diode array detection-tandem mass spectrometry analyses of the alkaloid extracts of Amazon Psychotria species

High-performance liquid chromatography paired with UV photodiode array, electrospray MS-MS and thermospray MS detectors was investigated as a method for the analysis of alkaloids in different parts of Psychotria spp. collected in the Amazon. Nine products have been isolated from the vegetable material and their structures elucidated by spectroscopic means. These constituents indicate pyrrolidinoindoline and quinoline alkaloid classes. Minor components were also assigned through MS fragmentations. Place and period of collections of the plant materials are responsible for both qualitative and quantitative variations with respect to pyrrolidinoindoline and quinoline type alkaloids. (C) 1999 Elsevier Science B.V. All rights reserved.
Croton cajucara Benth. (Euphorbiaceae) is widely used in Amazonian folk medicine for the treatment of a wide range of gastrointestinal symptoms. The essential oil from its bark was investigated for acute toxicity in mice and for its ability to prevent the formation of ulceration of the gastric mucosa in different models of experimentally induced gastric ulcer in mice and rats. When previously administered orally at a dose of 100 mg kg\(^{-1}\), the essential oil significantly reduced (\(P < 0.01\)) the gastric injury induced by hypothermic restraint stress (48%), indomethacin (47%), ethanol (86%) and pylorus ligature models (87%) in rats. In the HCl/ethanol-induced gastric ulcer model in mice, at oral doses of 100 and 200 mg kg\(^{-1}\), the essential oil from C. cajucara significantly reduced (\(P < 0.01\)) the formation of gastric lesions by 52% and 67%, respectively, when compared with the control group. In rats submitted to pylorus ligature, the essential oil given orally increased the volume of gastric juice when compared with the control group (\(P < 0.01\)). When the essential oil (100 mg kg\(^{-1}\)) was administered intraduodenally to mice, significant modifications were found in gastric parameters such as pH and total acid content after oil treatment. We observed significant changes (\(P < 0.01\)) in gastric juice parameters such as an increase in volume and a decrease in gastric acidity (pH and total acid content). The acute toxicologic effects of the essential oil from C. cajucara were assessed in mice. The LD\(_{50}\) values were 9.3 g kg\(^{-1}\) by the oral route and 680 mg kg\(^{-1}\) by the intraperitoneal route. The good yield of essential oil obtained from dried C. cajucara bark (1%) as well as its anti-ulcerogenic activity and low toxicity suggest that pharmacological studies of this substance as a potential new anti-ulcerogenic drug are warranted.
Liver and biliary ultrasonography in diabetic and non-diabetic obese women

Nunes, DS

TI Liver and biliary ultrasonography in diabetic and non-diabetic obese women

SO DIABETES & METABOLISM

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DE liver ultrasonography; biliary ultrasonography; gallstone disease; obesity; diabetes mellitus; glucose intolerance

ID CLINICAL GALLBLADDER-DISEASE; MORBID-OBESITY; NONALCOHOLIC STEATOHEPATITIS; FATTY INFILTRATION; HEPATIC MORPHOLOGY; INSULIN; ULTRASOUND; HISTOLOGY

AB Liver and biliary ultrasonographic findings were studied in 217 asymptomatic obese women [mean age 35.0 +/- 8.3 years, range 15 to 57; mean body mass index (BMI, weight/height(2)) 40.7 +/- 6.9 kg/m(2), range 30.3-71.9] from the Obesity Outpatient Clinic of the Professor Edgard Santos University Hospital. The women underwent an oral glucose tolerance test and were divided into two groups 21 diabetic obese women plus 25 glucose intolerant (group I); and 171 non-diabetic obese women (group II). Ultrasonography (US) was performed on a Siemens Sonoline SL2 apparatus with a 3.5 MHz transducer. Plasma glucose levels and biochemical tests were determined by the enzymatic method. The frequency of liver US abnormalities was similar in both groups (52.2 % of group I and 47.8 % of group II). Steatosis was found in 34.8 % of group I and 32.2 % of group II; steatosis associated with hepatomegaly in 17.4 % of group I and 10.5 % of group II; and hepatomegaly in 4.1 % of group I and absent in group II. Serum cholesterol, HDL-cholesterol, triglycerides, and liver function tests, including aspartate aminotransferase, alanine aminotransferase and gamma-glutamyltranspeptidase levels, were similar in both groups. However, triglycerides, uric acid and gama-glutamyl transpeptidase levels were higher in the diabetic and glucose-intolerant group. The frequency of asymptomatic gallstones was higher in group II than group I (24.4 % vs 11.7 %, p < 0.04). It is suggested that liver and biliary US should be included in the evaluation of all obese women, even when asymptomatic.

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PA 120 BLVD SAINT-GERMAIN, 75280 PARIS 06, FRANCE
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PT J
AU Grassi-Kassisse, DM
TI Effects on beta adrenoceptor mediated response of adipocytes from rats treated with Croton cajucara benth.

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TI Antipsychotic-like profile of alstonine
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DE alstonine; antipsychotic; serpentine alkaloids; dopamine
ID DOPAMINE-RECEPTORS; SCHIZOPHRENIC-PATIENTS; IN-VIVO; DRUGS; ANTAGONISTS; CATALEPSY; RAT

AB Although recently developed drugs have brought significant improvement, the treatment of psychotic disorders still presents serious drawbacks. Because inherent complexity and lack of satisfactory understanding of the underlying pathophysiology impose limits for rational drug design, resourceful approaches in the search for antipsychotics are pertinent. This article reports pharmacological properties of alstonine, a heteroyohimbine-type alkaloid, which exhibited an antipsychotic-like profile, inhibiting amphetamine-induced lethality, apomorphine-induced stereotypy, and potentiating barbiturate-induced sleeping time. Atypical features of alstonine were the prevention of haloperidol-induced catalepsy and lack of direct interaction with D-1, D-2 and 5-HT2A receptors, classically linked to antipsychotic mechanism of
Fractionation of an alkaloid extract of Psychotria colorata flowers led to the isolation of six alkaloids, identified by UV, 1D and 2D NMR, and MS as (-)-calycanthine, isocalycanthine, (+)-chimonanthine, hodgkinsine, quadrigemine C, and a new alkaloid (1), whose structure was deduced by X-ray analysis to be (8-8a),(8'-8'a)-tetradehydroisocalycanthine 3a(R), 3'a(R).
trons-Dehydrocrotonin (DHC), the major diterpene isolated from Croton cajucara Benth, was assayed for antiulcerogenic activity in four induced gastric ulcer models in the rat. At an oral dose of 100 mg/kg DHC showed a significant antiulcerogenic effect on ulcers induced by hypothermic restraint stress, ethanol, and pylorus ligature. No significant changes in indomethacin-induced gastric lesions or modifications in gastric parameters such as wall mucus, secretion rate, pH, and total acid content were found after DHC treatment. The acute toxicological effects of DHC were assessed in mice. The LD50 values were 876 mg/kg and 47.2 mg/kg for oral and intraperitoneal administrations, respectively. The cytotoxicity of DHC was also studied. A dose-dependent inhibition of cell viability was observed in V-79 fibroblast cell cultures with an IC50 of 240 μM. The high yields of DHC obtained from dried C. cajucara barks as well as its good antiulcerogenic activity and low toxicity support the pharmacological study of this compound as a potential new antiulcerogenic drug.
Lactones have been proven to be bioactive. We have shown that compounds present in the essential oil from Aeollanthus suaveolens, used as an anticonvulsant in the Brazilian Amazon, have sedative properties. This paper reports on the evaluation of the systemic administration of gamma-decanolactone, structurally related to lactones present in the essential oil of A. suaveolens, on mice experimental models useful for detecting psychopharmacological activity. The results show that gamma-decanolactone has dose-dependent marked effects on the central nervous system, including hypnotic, anticonvulsant and hypothermic activity. The effects of gamma-decanolactone revealed by this evaluation point to the validity of exploring lactones as sources of new anticonvulsant agents. (C) 1997 Elsevier Science Ireland Ltd.
(Leguminosae-Fabaceae) lyophilized aqueous extract (LAE) was studied in four models of gastric ulcers in rats, LAE showed a dose dependent inhibition of gastric lesions induced by indomethacin, ethanol, pylorous ligature and hypothermic-restraint stress. LAE extract was more effective against hypothermic-restraint stress-induced lesions and less effective against indomethacin-induced gastric mucosal damage. The effectiveness on the ethanol and pylorus ligature induced gastric lesions was equivalent. On the other hand, LAE did not modify mucus secretion in gastric lesions induced by stress. The oral administration of LAE did not produce any toxicity signals until 5 g/kg. Proanthocyanidins present in this species are phenolic compounds that inhibit the histidine decarboxylase enzyme. Thus, the mechanism involved in the reduction of ulcerative lesions of rat gastric mucosa produced by the LAE of D. monetaria may be related to its property of inhibiting histamine production. (C) 1997 by John Wiley & Sons, Ltd.
The trans-dehydrocrotonin produced a significant inhibition of carrageenin-induced paw edema and cotton pellet granuloma in rats. It also inhibited the writhings in mice induced by acetic acid, but did not show a significant effect in the hot-plate test in mice. The LD(50) of t-DCTN was 555.0 mg/kg (p.o.) for mice.

PT J
AU ELISABETSKY, E
AMADOR, TA
ALBUQUERQUE, RR
NUNES, DS
CARVALHO, ADT
TI ANALGESIC ACTIVITY OF PSYCHOTRIA-COLORATA (WILLD EX R-AND-S) MUELL ARG ALKALOIDS
SO JOURNAL OF ETHNOPHARMACOLOGY
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DE ANALGESIC ACTIVITY; PSYCHOTRIA COLORATA; AMAZONIAN CABOCLOS; NALOXONE; ALKALOIDS
ID FORMALIN TEST; MICE
AB An ethnopharmacological survey showed that home remedies prepared with flowers, fruits and roots of Psychotria colorata (Willd, ex R. & S.) Muell. Arg. (RUBIACEAE) are used by Amazonian caboclos as pain killers. These data led to the evaluation of analgesic activity of extracts of P. colorata, using the formalin, writhing and tail-flick methods. This paper reports the Naloxone reversible opioid-like analgesic activity of alkaloids present in leafs and flowers of P. colorata.
Two new indole alkaloids, 10-methoxy-yohimbine and 10-methoxy-4-methylgeissoschizol, and the known compounds yohimbine, beta-yohimbine, compactinervine, 10-methoxy-geissoschizol, 10-methoxy-dihydrocorynantheol, normacusine B and 3,4,5,6-tetrahydrositsirikine were isolated from the bark of Aspidosperma pruinosum. A C-13 NMR analysis of some corynanthein types and model compounds was carried out to confirm the structure of the new compounds.
PT J
AU NUNES, DS
   HAAG, A
   BESTMANN, HJ
TI 2 PROANTHOCYANIDINS FROM THE BARK OF DALBERGIA-MONETARIA
SO PHYTOCHEMISTRY
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C1 UNIV ERLANGEN NURNBERG, INST ORGAN CHEM, HENKESTR 42, D-8520 ERLANGEN, FED REP GER.
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PT J
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   HAAG, A
   BESTMANN, HJ
TI COMPONENTS FROM THE STEM BARK OF DALBERGIA-MONETARIA L - 3 NEW ISOFLAVONE C-GLUCOSIDES
SO LIEBIGS ANNALEN DER CHEMIE
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C1 UNIV ERLANGEN NURNBERG, INST ORGAN CHEM, HENKESTR 42, D-8520 ERLANGEN, FED REP GER.
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