Biological assay of Cassia podocarpa: a plant related to senna.

Larbi SO, Lewis RA.

Abstract

Leaves of the plant, Cassia podocarpa, were collected from Opah village near Accra, and dried. A suspension of the powdered leaf was given by gavage to groups of ten mice. A record was kept of the number of wet faeces passed in 24 hours. There was a linear relationship between the log dose of leaf and the number of wet faeces. The effect was maximal between 6 and 24 hours of administration and was larger than has been noted with senna.

<u>J Pharm Biomed Anal.</u> 1989;7(12):1453-7.

Chemical and biological analyses of Nigerian Cassia species for laxative activity.

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Author information

Abstract

The leaves of 10 Cassia species (Leguminosae), cultivated in Nigeria, were assayed spectrophotometrically for combined anthraquinone content and also pharmacologically for their laxative properties in male albino rats using official senna leaves (Cassia acutifolia Del.) as the reference standard. Leaves of C. podocarpa Guill, and Perr. and of senna had identical laxative potency. The results of both the chemical and the biological experiments suggested that C. alata L. and C. podocarpa are the most likely candidates for drug development in Nigeria. The use of a laxative index is proposed for the comparative study of Cassia (or any plant species) and its possible application to the quality control of these drugs is discussed.

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CASSIA podocarpa Guill. et Perr. [family LEGUMINOSAE-CAESALPINIOIDEAE]

Herbarium Royal Botanic Gardens, Kew (K) Collection

Flora of Tropical Africa

Resource Type

Reference Sources

Entry From

Flora of Tropical Africa, Vol 2, page 1, (1871) Author: Papilionaceae by Mr. J. G. Baker; Caesalpinieae and Mimoseae by Prof. Oliver)

Names

CASSIA podocarpa Guill. et Perr. [family LEGUMINOSAE-CAESALPINIOIDEAE], Fl. Seneg. i. 259 (ex descr.)

CASSIA Afzeliana Vogel [family LEGUMINOSAE-CAESALPINIOIDEAE], in Linnæa, xv. 70. Information

A glabrous shrub or small tree of 15 ft.; branches terete, smooth.Leaves ample 9–14 in. long; leaflets membranous in 4 or 5 pairs, elliptical obtuse mucronulate; the upper larger leaflets 4–6 in. long, 2–2 3/4 in. broad; petiolules 1–2 lines. Common petiole eglandular. Stipules ovate-lanceolate, 1/4 in. long, more or less deciduous. Racemes dense, at first strobiliform, solitary from the upper axils on long erect naked peduncles, at length equalling or exceeding the leaves. Bracts imbricate, ovate, obtuse, deciduous. Pedicels 1/4–1/3 in. Sepals subequal, obtuse, glabrous. Petals obovate or oblanceolate, obtuse, venose, clawed. Two of the anterior stamens with enlarged curved anthers 4–5 lines long. Legumes spreading or the fruit-pedicels recurved, straight or nearly so, broadly linear, flat, thinly coriaceous or firmly papery, shining, 2-valved, the thin pericarp depressed between the (15–20) seeds when dry, 3 1/2–4 1/2 in. long, 6–7 lines broad, tipped with the curved slender remains of the style. Fully developed seeds not seen.

Distribution

Sierra Leone Upper Guinea Afzelius!Fernando Po Upper Guinea Mann!Lagos Upper Guinea Barter!

Notes

Nearly allied to C. strobilacea, H. B. K., of Tropical America. C. strobilacea, however, has 10–12-jugate broadly and strictly oblong leaflets, pubescent at least underneath. Dr. Vogel described this species with hairy leaves. Our specimens are glabrous, and the type in the British Museum appeared to me the same on a cursory inspection.