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Phytochemical Analysis of Seeds of Cassia Bascilaria

Pramod Kumar Singh *Pushkar Pratap Tiwari**
Associate Professor Department of Chemistry Kamla Nehru Institute of Physical & Social Sciences Sultanpur, U.P., India

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ABSTRACT- Cassia bascilaria (Family: Leguminosae) , has been used in different traditional system of medicines for various ailments since ancient times. Cassia bascilaria grows throughout in india. This article aims to provide a comprehensive review on the phytochemical aspects of Cassia bascilaria. In traditional medicine, it has been used in the treatment of diabetes, hematemesis, leucoderma, pruritis, intestinal disorder and as antipyretics, analgesic and laxative. The seeds, stem bark, and leaves of this plant contain a verity of biologically active compounds such as anthraquinones, flavonoids, flavon-3-o1 derivatives, alkaloid, glycosides, tannin, saponin, terpenoids, reducing sugar and steroids those have various medicinal properties. The seeds and stem bark extract shows various activities like antipyretic, anti-inflammatory, antioxidant, antidiabetic, hypolipidemic, hepato-protctive antimicrobial, antitumor, antiulcer etc. the article reviews the various activities of the plant.

Keywords:- Antidiabetic, Antioxidant, Antimicrobial, Cassia bascilaria, Anthraquinone glycosides

INTRODUCTION

Cassia bascilaria also known as the Multipurpose tree belongs to the family Leguminosae is widely used for its medicinal properties, its main property being that of a mild laxative suitable for children and pregnant women.

It is also a purgative due to the wax aloin and a tonic[1] and has been reported to treat many other intestinal disorders like healing ulcers[2].According to the WHO, more than 50% of the world's population must use traditional medicine to satisfy their principal health needs.

In developing countries 60% population are using traditional medicine in primary medical problems[3,4] . Plant drugs and herbal formulations are frequently considered to be less toxic and free from side effects than synthetic one[5] .

In traditional medicine, Cassia bascilaria is one of the most commonly used plants in Unani and Ayurvedic medicines, this plant has been described to be useful against skin diseases, liver troubles, tuberculous glands and its use in the treatment of haematemesis, pruritus, leucoderm and diabetes has been suggested[6]. Traditinally, the plant is also used as an infusion, decoction, or powder, either alone or in combination with other medicinal plants. In modern times, and in any controlled clinical trials, commercial preparations have tended to be standardized extracts of the whole plant. The plant has documented to possess analgesis[7] , antiinflammatory[8], antioxidant[9], antidiabetic[10], as well as hepatoprotective activity[11.]

Phytochemical Studies- The plant is rich in phenolic antioxidants such as anthraquinones, flavoniods and flavan-3-o1 derivatives. Cassia basiclaria the results shows positive for alkialoids, terpenoids, reducing sugars, saponins, tannins, carbonyl, phlobatanin, and steroids[12] Cassia bascilaria laxative actions come from a group of well documented compounds called anthraquinone. The seeds contain approximately 3% anthraquinones, 20% crude protein, 4.5% crude fat, 6.5% crude fiber, and 50% carbohydrates. The stem bark contains two flanol glycosides and a xanthone glycosides[13.] The leaves have been documents with 21.5% crude protein, 5% crude fat, 20% crude fiber, and 40% carbohydrates. In addition, the plant also contain fistulic acid, galactomannan, sennosides A and B, tannin, oxyanthraquinone substances, emodin, chrysophanic acid, lupeol, beta-sitosterol, and hexacosanol[14,15].

CONCLUSIONS - Before the inrtroduction of modern medicines, disease treatment was entirely managed by herbal remedies. It is estimated that about 60% of the world population residing in the vast rural areas of the developing and under developed countries still reply mainly on medicinal plants. It is quite obvious that the plant is widely used in traditional medicinal system of India and has been reported to possess hepatoprotective, anti-inflammatory, antifungal and also used to check wounds healing and antibacterial properties. It is known as a rich source of tannins, flavonoids and glycosides present in Cassia bascilaria might be medicinally important and/or nutritionally valuable. The plant is rich in carbohydrates, Linoleic, Oleic, and Stearic acid. Leaf of Cassia bascilaria mainly contains Oxalic Acids, Tannins, Oxyanthra-quinones, Anthraquinones derivatives. Cassia bascilaria seeds contains other Fistulic Acids, Sennosides A B, Anthraquinones, and Flavaniod-3ol-derivatives. Ceryl Alcohol, Kaempferol, Glycosides, Fistulin, Essential Oils, Volatile Components, Phytol (13.0%), 2-Hexadecanon(10%), Crystals, 4-Hydroxy Benzoic Acids Hydrate have been reported from the plant. The Present rview summarizes some important phytochemical investigation and isolated

principles from them, which can be investigated further to acieve lead molecules in the search of novel herbal drugs.

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