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Importance of Ferns in Human Medicine

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Abstract

This paper focuses on the ethnomedicinal value of ferns. People throughout the world frequently use ferns as medicines for the cure of various disorders. The present review is based on information gathered from local tribals and other sources.

Key Words: Ethno medicinal uses, ferns.

Introduction

The ferns are thought by most people to be quite useless members of the plant kingdom. The deleterious effects of rapid fern growth are well publicized, but their useful aspects are largely ignored. Ferns are found to provide food, medicine, fiber, crafts and building material, abrasives and of course decoration. But recently ethno botanical studies have attracted a number of field workers and they have supplied a lot of information about different uses of plants world wide. Today, ethnobotany has become an important and crucial area of research and development in resource management, conservation of biodiversity at genetic, species and ecosystem levels, and socio-economic development of the region. The ancient medical knowledge of various tribes and

folklore systems of medicine, sometimes referred to as ethno-therapeutics, has therefore provided a more powerful and effective strategy for the discovery of clinically useful compounds.

Material and Methods

Plant materials for the present study were obtained from the forests at Pachmarhi, Madhya Pradesh, kushmi forest in Gorakhpur district, Mirzapur, Varanasi, Gonda, Bahraich of Uttar Pradesh, India. The ethnobotanical data, gathered from tribal medicine men of India and also from other sources, are described here.

Observations

Wounds, cuts, sores, snakebites and Fever. When boiled in oil or fat, *Ophioglossum vulgatum* is said to be a panacea for wounds and to reduce inflammation. A poultice or lotion made from the roots of *Botrychium virginianum* is applied to snakebites, bruises, cuts and sores in the Himalayas (Plants for a future: database search results). The powdered rhizomes of *Adiantum lunulatum* are used as an antidote to snakebite in India (1). *Gleichenia linearis* is bound externally onto wounds in east New Britain (2). In India extract of fresh leaves of *Nephrolepis cordifolia* checks the bleeding of cuts and help in blood coagulation (3). *Selaginella flabellate* is used to control feverish headaches in Bougainville (4).

Mental disorders : *Dryopteris cochleata* is used in mental disorder. Filtered water extract of rhizome is given to the unconscious persons suffering from epilepsy in India (5). *Cheilanthes farinosa* is also used in mental disorder in India (6). In India extract of washed rhizome freed from scales is useful to the unconscious patients suffering from epilepsy (7). The paste of the leaf of *O. reticulatum* is applied to the forehead to get rid of headache in India (8).

Respiratory and throat disorders: The rhizome of *Helminthostachys zeylanica* is chewed with areca to treat whooping cough. About ten

grams of the whole plant of *Adiantum lunulatum* mixed with black pepper is made into paste and pills. Two pills given twice a day for one month, cures bronchitis and asthma in India (9). Whole plant of *Adiantum capillus veneris* is expectorant used in cough and throat and bronchial disorder. Leaves mixed with honey are useful in seasonal cold fever in India (10).

Stomach disorders: Filtered water extract of rhizome and petiole of *Tectaria macrodonta* is used in constipation in India (11). Filtered water extract of rhizome of *Abacopteris multilineata* is useful for the patients suffering from several sorts of stomach pains in India (12). Decoction of roots and rhizomes of *Adiantum philippense* is used in dysentery in India (13). *Lycopodium* is chewed in the central highlands to induce vomiting after food poisoning (14). *L. clavatum* is used in the Philippines as an emetic (15). For stomach ache and diarrhoea the fresh fronds of *L. longifolium* are chewed in the eastern highlands (16). *O. vulgatum* are used as a poultice in scrofulous ulcers with an infusion taken internally in wine glassful doses.

Menstrual, gonorrhoea, childbirth, sterility, and contraception disorders: Rhizome of *Helminthostachys Zeylanica* in India is used for curing impotency (17). *Pteris tripartite* is used in childbirth in Bougainville, the fronds being taken internally (18). *Pteris ensiformis* is used to control menstruation in Bougainville (19). The extract of rhizome of *Lygodium flexuosum* in India is used to cures gonorrhoea (20). The whole plant of *selaginella bryopteris* is mixed with roots of *Grewia hirsuta* vhal, root of *Hemidesmus indicus*, sugar and black pepper is made into a paste. The pills are made from the paste and are given in the treatment of gonorrhoea in India (21). *Lygodium dichotomum* is used as a contraceptive, the root and stem being taken internally in Bougainville (22). In India it is also used to treat children's illness. *Dryopteris* is used in New Ireland as an abortifacient (23).

Discussion

All medicinally significant ferns should be conserved and measures should be taken to prevent their extinctions. Also their medicinal value should be discussed and disseminated throughout the world for the benefit of human beings. Management actions for these ferns consist of many tasks which include the following:

- 1) We must gain a variety of experiences and acquire a basic understanding of the environment and its associated problems of these medicinally significant ferns;
- 2) We should acquire a set of values and feelings of concern for the environment and the motivation for active participation in environmental improvement and protection of these ferns;
- 3) We should also acquire skills for identifying and solving problems regarding medicinally important ferns
- 4) We should evaluate environmental measures and education programs of ferns in terms of ecological, economic, social, aesthetic, and educational factors;
- 5) An easy opportunity should also be made available to be actively involved at all levels in working towards the resolution of fern problems;
- 6) The wire fence around the habitat of medicinally important ferns should be constructed to exclude live stock from the immediate area; and,
- 7) Educated persons should tell others about the multiplication of ferns through tissue culture technique.

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