ADULTERANTS IN AYURVEDIC MEDICINE : PHARMACOGNOSY OF INDIGOFERA TINCTORIA AND ITS ADULTERANT INDIGEFERA SUFFRUTICOSA

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The juice of the leaves of Indigofera tinctoria Linn. (Sinhala - Nilawariya) has been used as a cure for hydrophobia, being administered both internally and externally. It is also used to cure asthma, whooping cough, palpitation of the heart, kidney complaints, hepatitis, epilepsy and other nervous disorder in the Ayurvedic System of Medicine.

In Sri Lanka Nilawariya is adulterated with its co-generic species Indigofera Suffruticosa Mill., which is also commonly referred to as Nil-awariya in Sinhala. Thus the adulteration can be the result of confusion of names.

The macroscopic and microscopic characteristics were studied and these can be used to distinguish the authentic plant from its adulterant in the fresh form.

The microscopic characters of the dried powders of these two plants were also studied. This enables one to distinguish or authenticate these drugs when they are in the dried form and when they are incorporated into compound medical preparations.

TLC screening was done inorder to determine any similarities in their chemical constituents. TLC profiles which could be used to distinguish between these two plants will be presented.

The volatile compounds in both plants were compared using Thermomicro Separation, Transfer and Application method according to stahl (TAS) which could be used to distinguish between the two plants.

There are some differences in the chemical components which would therefore make the Indigofera Suffruticosa an adulterant and not a suitable substitute. Ayurvedic physicians as well as commercial firms are often cheated and supplied with adulterated stuff. This obviously results in the circulation of substandard drugs in the market. These studies therefore enable one to distinguish the authentic plant from its adulterant; thus the quality of an Ayurvedic preparation could be established.

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