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REVIEW

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Plants containing pyrrolizidine alkaloids used in the Traditional Indian Medicine – including Ayurveda

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Dedicated to Prof. Dr. Dr. h.c. Miroslava Farmannova on the occasion of her 85th birthday.

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Pyrrolizidine alkaloids (PAs) show a hazardous potential for humans and animals. They can possess mutagenic, teratogenic, cancerogenic and fetotoxic properties. One pathway of a human intoxication can be the use of medicinal plants which contain toxic PAs. The Traditional Indian Medicine – in particular Ayurveda – is a popular and well-known healing system. Within this system several PA-containing plants are used which, on account of their PA level, represent a severe health risk. In general, it is not recommended to use plants containing those toxic compounds.

1. Introduction

The traditional medicine of India (TIM) consists of several systems and enjoys great popularity worldwide. Within these systems, especially “Ayurveda” is well-known and is practiced in many countries; even hospital facilities can be found focused on an ayurvedic treatment. The first reports of TIM date back to 2000 BC. It influenced the Chinese and Tibetan and even Western medicine. Although there are various studies demonstrating the successful treatment by TIM e.g. in the case of heart diseases, asthma, diabetes type II, rheuma, fetal-in-ano, there are hardly any evidence-based or double-blind studies which show the efficacy and importance of TIM preparations in modern medicine. This may be caused by the frequent absence of a clear description of the active ingredients and/or the active principles. No reports can also be found about possible long-term side effects resulting from TIM treatment. However, these side-effects are likely to be experienced if PA-containing plants or preparations from them are used. As already described for European and Chinese traditional medicines (Roeder 1995, 2000) and for plants used in Mongolia, Nepal and Tibet (Roeder et al. 2009) and in Madagascar and the Mascarene islands (Roeder et al. 2011) also in TIM different plants or preparations are used which have already been described to contain toxic PAs or are suspected of containing them. Chemically, PAs are ester compounds deriving from a bicyclic five-membered ring (pyrrolizine) in form of mono-, di- or macrocyclic diesters. In case the acetate shows a double-bond in position 1,2 and a non-substitution adjacent to the bridge nitrogen atom, the resulting PAs can be toxic for humans and domestic animals. Although showing no or only low acute toxicity, PAs can undergo a 3-step metabolic toxication to alkylating agents in the human or animal liver (being the first target organ

for the toxicity) which can result in mutagenic, genotoxic, cancerogenic and fetotoxic effects (Fu et al. 2002, 2004, 2007; Xia et al. 2004, 2006; Wiedenfeld et al. 2008; Wiedenfeld and Edgar 2011; Fig. 1).

2. PA-containing plants in TIM

Apratum conyzoides L. (syn. *Cassia conyzoides* (L.) Kuntze., syn. *Eupatorium conyzoides* (L.) Krauss). [Asteraceae, subfamily Asteroideae, tribe Eupatorieae]. Engl. name: hill goat, goat weed; vernacular name: Ajagandha, Appa grass, Dochanty, Uchanti, Gandhari, Sahadevi, Vishamurthi (Nair et al. 1998; Samant et al. 1998; Khare 2007; Jadhav 2008; Enchanting 2011). Distribution: whole India, especially southern India, up to an altitude of 1 800 m. Medicinal use: against haemorrhoids, dyspepsia, kidney stones, cuts, ulcers, wounds, diarrhoea and flatulence. The juice of the herb is used for rectal injections. Intravaginal for uterine disorders. The leaves and stem have antileptic, antileptic and styptic properties. Contains the toxic alkaloids lycopsamine (15), and echinastine (20) (Wiedenfeld et al. 1991). *Ailannia trictoria* L. Tausch. [Boraginaceae, subfamily Boraginaceae, tribe Lithospermeae]. Engl. name: alkanet, dyers or Spanish bugloss. Distribution: natural in South Europe, cultivated in India. Medicinal use: abortifacient, antimicrobial, used for indolent ulcers, erysipela (Khare 2007). In the traditional medicine of the Usani (located in Kasmir) *A. trictoria* can be replaced by *Oenoma echinoides*. Contains the toxic pyrrolizidine alkaloids O'-angeloyl-ecosessine (9), triangularine (19), dihydroxytriangularine (20) (Roeder et al. 1984). *Anchusa italica* Retz. (syn. *A. azurea* Mill) [Boraginaceae, subfamily Boraginaceae, tribe Boragineae]. Engl. name: alkanet, cow's tongue plant. Distribution: in Indian gardens and hills

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Rural Dispen.

Sr.	Name of Item	Unit Pack Size
1	Inj. Lignocaine HCL 2% w/v	30 ml (vial)
2	Inj. Diclofenac Sodium 25mg/ml	3 ml amp
3	Inj. Pentazocine Lactate 30mg/ml	1ml amp.
4	Inj. Atropine Sulphate 0.6 mg/ml	2 ml amp
5	Inj. Dexamethasone Sodium Phosphate 4mg/	2 ml vial/ amp.
6	Inj. Pheniramine Maleate 22.75 mg/ml	2ml amp
7	Inj. Theophylline and Etofylline (50.6mg +	2ml amp
8	Inj. Tetanus Toxoid (Adsorbed)	0.5 ml Amp
9	Inj. Metaclopramide 5mg/ml	2 ml Amp.
10	Inj. Ranitidine IP 25mg/ml	2ml amp
11	Inj. Adrenaline 1mg/ml	1 ml amp
12	Sterile Water for Injection, IP	5ml ampoule
13	I.V Normal Saline (Sodium Chloride 0.9%)	500 ml Btl.
14	I.V. Dextrose Saline 5% w/v to 0.9% w/v	500 ml Btl.
15	Sulphacetamide Eye Drops IP 10%	10 ml vial
16	Tab. Paracetamol 500Mg	10 X 10 Strip
17	Tab. Cetrizine Hcl 10 mg	10 X 10 strip
18	Tab. Ibuprofen coated 400 mg	10 X 10 Strip
19	Tab. Albendazole 400 mg	10 X 10 Strip
20	Tab. Ranitidine 150 mg	10 X 10 Strip
21	Tab. Dicyclomine Hcl 10mg	10 X 10 Strip
22	Tab. Salbutamol 4 mg	10 X 10 Strip
23	Tab. Ferrous Sulphate with Folic Acid Ferrous	10 X 10 Strip
24	Tab. Ciprofloxacin coated 500mg and 250 mg	10 X 10 Strip
25	Cap. Amoxycillin 500 mg	10 X 10 Strip
26	Tab. Cotrimoxazole S.S Trimethoprim 80mg +	10 X 10 Strip

S.N	Botanical name	Local name	Family	Habit	Part used	Treatment process
1	<i>Andropogon indica</i> L.	Makham	Euphorbiaceae	Herb	Leaf	Taken leaves juice is used as skin disease
2	<i>Achyrocline saturei</i> L.	Agadi	Amaranthaceae	Herb	Leaf	Parts made from leaves is used as eczema
3	<i>Aegle marmelos</i> (L.) Corr. Lam.	Bd	Rutaceae	Tree	Leaf	Applied young leaves juice is used as abscess.
4	<i>Apratum conyzoides</i> L.	Ochani	Asteraceae	Herb	Leaf, stem	Applied both of leaves and stems parts are used as skin disease, legumy and wound.
5	<i>Ailannia trictoria</i> (L.) Tausch	Korvi	Fabaceae	Tree	Bark	Applied boiled water with bark is used as scabies.
6	<i>Andropogon paniculatus</i> Willd. ex Nees	Kalmegh	Acanthaceae	Herb	Leaf	Taken leaves parts is used as wound and itches
7	<i>Argemone mexicana</i> L.	Salkani	Papaveraceae	Herb	Latex	Latex is used as skin disease and itches
8	<i>Azadirachta indica</i> L.	Neem	Melastomaceae	Tree	Leaf	Taken leaves parts mixed with castor oil is used as eczema.
9	<i>Asenna squarrosa</i> L.	Ata	Anacardiaceae	Tree	Leaf	Taken leaves parts is used as abscess.
10	<i>Artocarpus heterophyllus</i> Lamk.	Kathal	Moraceae	Tree	Leaf	Taken young leaves Juice is used as itches.
11	<i>Asarbadrahta indica</i> A. Juss.	Neem	Melastomaceae	Tree	Leaf	Leaves boiled with water and apply physically is used as eczema and itches
12	<i>Cordia alliodora</i> L.	Pippa	Celastraceae	Shrub	Latex	Taken latex is used as itches
13	<i>Cassia alata</i> (L.) Urban	Thakani	Fabaceae	Herb	Leaf	Taken young leaves parts is used as eczema.
14	<i>Cassia toria</i> L.	Heidi	Fabaceae	Herb	Flower	Taken flowers parts is used as abscess and eczema.
15	<i>Coccinia grandis</i> (L.) Voigt	Talukucha	Cucurbitaceae	Climber	Whole plant	Parts of the whole plant is applied for cure of skin disease
16	<i>Crotalaria longipedunculata</i> Kunt	Bimhal	Euphorbiaceae	Herb	Leaf	Leaf parts applied on wounds.
17	<i>Cynodon dactylon</i> Pers.	Dushagha	Poaceae	Herb	Whole plant	Parts made from whole plants are used as skin disease, stop bleeding and wound.
18	<i>Dalbergia sissoo</i> Roxb.	Sissoo	Fabaceae	Tree	Wood	Taken wood parts is used as abscess.
19	<i>Eclipta alba</i> L.	Kalokethi	Asteraceae	Herb	Leaf	Taken young leaves parts is used as wound and skin disease
20	<i>Ethulia conyzoides</i> L.	Ethulia	Asteraceae	Herb	Leaf	Parts of leaves is applied as wound
21	<i>Ficus religiosa</i> L.	Bot	Moraceae	Tree	Leaf	Applied leaves parts is used as abscess.
22	<i>Ficus religiosa</i> (Hornem.) Poir.	Banajla	Fumariaceae	Herb	Whole plant	Whole plant parts is recommended for skin allergy.
23	<i>Hibiscus rosa-sinensis</i> L.	Hansa	Boraginaceae	Herb	Leaf	Parts made from leaves is used as skin disease
24	<i>Justicia gendarussa</i> Burm. f.	Jagbhadra	Acanthaceae	Herb	Leaf	Taken leaves juice, also Applied leaves parts is used as itches and wound.
25	<i>Lavonisa ternata</i> L.	Mehandi	Lythraceae	Shrub	Leaf	Taken leaves parts is used as wound and burning sensation.
26	<i>Mikania cordata</i> (Burm. f.) Polakowsky	Assamata	Asteraceae	Climber	Leaf	Juice of leaves is applied as injury.
27	<i>Mimosa pudica</i> L.	Sadi	Fabaceae	Herb	Leaf	Leaves decoction applied physically is used as skin disease.
28	<i>Ocimum sanctum</i> L.	Amud	Osaiaceae	Herb	Whole plant	Plant sap cures skin diseases.
29	<i>Pereskia aculeata</i> (L.) Doldor	Pamandi	Polygonaceae	Herb	Leaf	Applied leaves juice is used as insect-bite.
30	<i>Phaseolus vulgaris</i> (L.) Roth	Khaja	Asteraceae	Tree	Spine	Extract of spine is used as skin diseases.
31	<i>Piper longum</i> L.	Pea	Piperaceae	Climber	Leaf	Taken leaves parts is used as cut injury.
32	<i>Rhynchospora muricata</i> L.	Juglapingla	Polygonaceae	Herb	Root	Roots are used to treat skin diseases.
33	<i>Sesuvia alata</i> (L.) Roxb.	Dudhania	Fabaceae	Shrub	Leaf	Taken leaves decoction is used as eczema, also taken leaves parts is used as diet.
34	<i>Sonchus asper</i> (L.) Hill		Asteraceae	Herb	Whole plant	Powder of the dried plant is applied on wound and boils.
35	<i>Spatholobus suberectus</i> (Hornem.) Merr.	Akanandi	Menispermaceae	Climber	Leaf	Parts made from leaves is used as abscess.
36	<i>Styphelia pentandra</i> (L.) Merr.	Jam	Myrsinaceae	Tree	Bark	Applied bark parts is used as wound.
37	<i>Tournefortia cordata</i> Merr.	Gadacha	Menispermaceae	Climber	Whole plant	Fresh plant parts is used as skin disease and burning sensation.
38	<i>Tridax procumbens</i> L.	Todhara	Asteraceae	Herb	Whole plant	Applied whole-plant parts is used as scabies.
39	<i>Vernonia pambol</i> (Dybind) Merr.	Kukra	Asteraceae	Herb	Flower	Taken flower parts is used as wound.
40	<i>Zinnia mexicana</i> Koenig ex. Roxb.	Chaga	Asteraceae	Herb	Whole plant	Parts made from whole plants is applied as small-pox, boils, abscess, insect-bite and snake-bite.
41	<i>Zingiber officinale</i> (L.) DC.	Yanga	Asteraceae	Herb	Leaf	Taken leaves parts is used as wound.

New Delhi: Central Council for Research in Ayurveda and Siddha; 2002b. Ambike SH, Rao MRR. 130-139. [Google Scholar]21. [Google Scholar]55. Gynecological Diseases. [Google Scholar]29. Inhibition of antigen and compound 48/80 induced contractions of guinea pig trachea by the ethanolic extract of the leaves of *Vitex negundo* Linn. Dahanukar SA, Rege NN, Thatte U. Plants with hepatoprotective activity - A review. 164-170. Effects of *Centella asiatica* extract on dermal wound healing in rats. [Google Scholar]63. 1978;40(2):50-52. 1960;49:32. Bio-active compounds from Himalyan medicinal plan. M.D. (Ayu) Dissertation submitted to Gujarat Ayurved University, Jamnagar. Khalefathullah Syed. 49. 1975;10(2):941. *Chitraka* (*Plumbago zeylanica*) pp. Doshi Tanuja. New Delhi, India: Central Drug Research Institute, Lucknow and National Institute of Science Communication; 1995. (Fabaceae)Bark, leaves, gum, flowerHypoglycemic, anti-fungal. Biotechnologically important solanaceous plants. Chakraborty B, Neogi NC. Piper Linn. [Google Scholar]80. In: Sharma RK, Arora R, editors. *Ind J Exp Biol.* 321-329. Pharmacognosy of Indigenous Drugs- Vol. (Dahanukar et al., 1997; Thatte et al., 1994)Tribulus terrestris Linn. 90-91. T. (Myrtaceae)Seed, bark, leafHypoglycemic, anti-inflammatory, anti-diarrhoeal, anti-pyretic. New Delhi: Central Council for Research in Ayurveda and Siddha; 2002c. [Google Scholar]39. 1994;26:44-45. New Delhi: Central Council for Research in Ayurveda and Siddha; 2002d. Rastogi RP, Dhawan BN. Ancient Indian Medicine and Medicinal Plants. New Delhi: Central Council for Research in Ayurveda and Siddha; 2004a. New Delhi: Central Council for Research in Ayurveda and Siddha; 2000d. [Google Scholar]14. New York: CRC Press; 2004. Bangalore, Marketing Directory. In: Hyperacidity (Amlapitta) in Scientific Basis for Ayurvedic Therapies. Antitrypsin and Anti-hyaluronidase activity of *Curcuma longa* (Haldi) Indian J Pharmac. (Mitra and Rangesh, 2004b)Inula racemosa Hk.f (Asteraceae; Compositae)RootsUsed in gastro intestinal disorders, diuretic, expectorant and allergic disorders etc (Mishra, 2004a)Leptadenia reticulata (Retz.) Wt. & Arn. 530-539. [Google Scholar]62.

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