

Natural Antidote for Visa Dravyas-A Classical Review

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Abstract: *In Ayurveda, since Vedic period numerous drugs are utilized for therapeutic purposes, are either plant (Sthavar Udbhava), animal (Jangam Udbhava) or metal, mineral (Khanija) origin. After the period of Acharya Nagarjuna, utility of metals, minerals along with poisonous drugs came into existence with the development of specialized pharmaceutical branch called Rasa Shastra. Ascendancy of Herbo-minerals formulations rose much compared to herbal preparations due to their smaller dosage form, faster action, quicker assimilation, tremendous therapeutic values with longer shelf life etc., shows its distinction. But while practicing Vaidyas came to know about the ill effects of these medicines on human body which may be due to the use of medicines made from improper processed metals, minerals, Visa Dravyas or not adopting systematic treatment rules. If actual pharmaceutical steps are not followed for these individual Visa Dravyas, then its therapeutic properties get diverged resulting in unfavourable effects on body i. e. adverse drug reactions. Thus to overcome these unpredictable consequences, some natural drugs (plant origin, milk products etc.) are specified which mimics the therapeutic properties of the Visa Dravyas & thus here they are able to neutralize opposite unwanted effects of Visas results from unmethodical pharmaceutical procedures. Vaidyas need to follow pharmaceutical procedures efficiently for Rasa Dravyas (metal and minerals), Visa Dravyas (poisonous drug) precisely as stated in classical text before composing compound formulations so that these can be used on human body safely. Thus this article focuses on antidotes especially for Visa Dravyas according to Rasa Acharyas.*

Keywords: Vaidyas, Visa Dravyas, Antidotes, Pharmaceutical procedures

1. Introduction

Rasashastra the Materia Medica of Ayurveda, in which Parada (Mercury) is the main centre of attraction, along with Rasa Dravyas (minerals) & Visa Dravyas (poison). The products dealt under this field are principle module of Ayurvedic therapeutics. This subject prioritizes specifically on processing of metal and mineral raw drugs, poisonous drugs with different pharmaceutic techniques in prior to involve them in different Compound formulations having indications in numerous ailments. Before composing these Herbo-mineral formulations, Rasacharyas required following all the steps for Rasa Dravyas (metal and minerals), Visa Dravyas in accordance with classical text so it can be effectively utilizing on human body. If one doesn't abide by these rules it leads to a lot of impacts on human body. So for counteraction of these undesired effects certain Antitoxin or Antidotes are mentioned in the classical text for individual Rasa Dravyas, Visa Dravyas. Antidotes can be defined as the agents that negate the effects of a poison or toxin. It mediates its effect by preventing the absorption of the toxin, by binding, neutralizing the poison, antagonizing

its end-organ effect, or by inhibition of conversion of the toxin to more toxic metabolites. In modern, antidotes are alike to chelation therapy, in which chelating agents are used to remove toxins from body in metals & minerals toxicity. A chelating agent is a multidentate ligand whose molecule forms several bonds to a single metal ion. Example deferoxamine, deferiprone, dimercaprol etc. are some of the favourable tools to keep metallic concentrations at physiological level. Rasa Vaidyas must be well furnished with all the pharmaceutical procedures, the ill effects of each and every metals and minerals, Visa Dravyas caused due to inappropriate steps. To curb ill effects up to some extent, he/she should be literate about antidotes which act as chelating agent for each metals and minerals, Visa Dravyas. Therefore, Antidote occupies a vital role in clinical practice. This present review briefly introduces list of antidotes specially for Visa Dravyas which are majority plant origin, alkaline substance or milk derivatives and suited for long term oral administration.

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Aim & Objective

To conscript list of antidotes for individually *Visa Dravyas* and deliberate modern along with ayurvedic properties of antidotes.

2. Materials and Method

Several antidotes for individual *Visa Dravyas* mentioned listed below are collected from classical text.²

Vatsanabha (*Aconitum Ferox*): Antidotes for *vatsanabha* are *Tankan* (Borax) with *ghee-Aja Dugdha* (goat's milk) (used as *Vaman*)-*Haridra Swarasa* (juice of *Curcum longa*) and *Tanduliya Swarasa* (juice of *Achyranthes aspera*) or *Sarpakshi Swarasa* (Juice of *Ohiorrhiza Mungos*) with *Tankan* (Borax) and *ghee-Godugdha* (Cow's milk), *Navanita* (butter), *Ajadugdha*, *Mrudikakalka* (paste of *Vitis vinifera*), *Udumbara Twak* (bark of *Ficus glomerata*), *Twak Kalka* (*Cinnamomum zeylanicum*'s paste), *Tanduliya Swarasa* (juice of *Achyranthes aspera*), *Prusniparna Rasa* (juice of *Uraria picta*), *Jambutwak Rasa*, *Hing* (*Ferula narthex*) and *KhandaSarkara* (sugar candy).

Kuchila (*Strynus nox vomica*): Antidotes for *kuchila* are *Nagvalli Dala Swarasa* (juice of *Piper betel*) and *Goghrita* (Cow's ghee).

Ahiphena (*Papaver somniferum*): Antidotes for *Ahiphena* are *Sourastri Curna* (Powder of alum), *Karpastwak Curna* (*Gossypium herbaccum*'s powder), *Pippali Twak Kasaya* (Decoction of bark of *Piper longum*), *Adrak Swarasa* (*Zingiber officinale*'s juice)

Jaipal (*Croton tiglium*): Antidotes for *Jaipal* are *Usna Jal* (warm water), *Go Ghrita* (Cow's ghee), *Ela Curna* (*Elettaria cardamomum*'s powder) and curd, *Dhanya Curna* (Powder of *Coriandrum Sativum*) and *Sarkara* (sugar)

Dhatra (*Datura metel*): Antidotes of *Dhatra* are *Gomutra peseta Samudraphala Kalka* (Paste of *Barringtonia Acutangula* with cow's urine)-*Vaca Curna* (Powder of *Acorus Calamus*) and *Dadhi* (curd)-*Sarkara misrita Godugdha* (Cow's milk with sugar)-*Eranda Mula Kalka peseta* with *Karpasa Bija Kwatha* (Paste of root of *Ricinus Communis* with decoction of *Gossypium herbaccum*'s)

Bhanga (*Cannabis sativa*): Antidotes like *Takra* (Butter milk), *Sunthi Kalka* (*Zingiber Officinale* paste) with curd-*Cincha Kalka misrita Tandulodaka* (*Tamarindus Indica* paste with rice water)

Bhallatak (*Semecarpus Anacardium*): Antidotes of *Bhallatak* are *Navaneeta* (Butter) with *Til Kalka* (*Sesamum Indicum*'s paste)-*Dhaniyak Kalka* (*Coriandrum Sativum*'s paste)-*Arjun Patra kalka* (*Terminalia Arjuna*'s paste)-*Bhibitak Maja* (*Terminalia Bellerica*)-*Kasmarda Patra Kalka* (Paste of *Cassia Occidentalis*)-*Haridra Kalka* (*Curcuma Longa*'s paste)-*Narikela Phala Kalka* (Paste of *Cocos Nucifera*)

Arka Ksheera (latex of *Calotropis Procera*): Antidotes *Arka Ksheera* are *Goghrita* (orally)-*Chincapatra Kalka* (Paste of *Tamarindus Indica*), External application *lepa*

Snuhi Ksheera (latex of *Euphorbia neriifolia*): Antidotes of *Snuhi Ksheera* is *Goghrita* (orally).

3. Discussion

Ayurveda mainly focuses on mainly preventive and curative aspect for proper Health. To achieve these aspects mainly formulations are utilized in form of Herbal or Herbo-metallic & mineral preparations having multidimensional properties with minimum dose. Several metals, minerals, poisons are used as ingredients in these formulations. Before using these ingredients, one should be aware of their proper pharmaceutical steps systemically, according to classical text. If one doesn't follow these steps precisely various serious ill effects can be produced on health. To combat these ill effects many natural antidotes are mentioned which are either plant or milk product. These natural antidotes may be considering as Chelating agent of *Ayurveda* helps to neutralize the toxic effects of metals and minerals without any side effect and protects the body from losing essential elements from the body. Below some natural antidotes are discussed with their modern and *Ayurvedic* properties for concern *Visa Dravyas* (poisonous drugs).

1) VATSANABHA (*Aconitum ferox*) –PRUSNAPARNI (*Urariapicta*)³ has properties like *Dahaprasamana* (elevates burning sensation), *Nadibalya* (nerve strength promoter), *Hrudya* (Good for heart). Flavonoids present in it contributes to Anti-arrhythmic property, CNS activity, cardiotoxic, lipid lowering action. Cardiac glycosides present in it show response to Congestive Heart failure, cardiac arrhythmia. Hypocholesterolemic properties is due to Saponins. Methanol extract has a role for myocardial protection. Phenols & flavonoids shows anxiolytic effect & treat Alzheimer's disease. So these properties present in *Prusnaparni* may counteract ill effects like *Daha* (irritation), *Moha* (Delusion), *Hrudayagati Avarodha* (heart failure symptoms) of *Vatsanabha*. **DRAKSHYA (*Vitis vinifera*)⁴** has qualities like *Medhya*, *Hrudya*, *Daha prasamana*. Myricetin content in grape raisin & aqueous extract in skin grape reduces systolic blood pressure. Anti-cholinergic effect is seen in grape skin. Anti-alzheimer effect seen in grape powder & ethanolic extract. Cardio-protective effect is due to Phenolic compounds. These factors may help to counteract ill effects like *Daha*, *Moha*, *Hrudayagatiavarodha* due to *Vatsanabha*. **APAMARGA (*Achyranthes aspera*)⁵** has Qualities like *Hrudya* (cardio-protective). Methanolic extract of whole plant has anti-pyretic effect. Stem aqueous extract & methanolic extract of leaves has anti-hyperlipidaemic activities So these qualities may help to neutralize *Hrudayagati Avarodha* due to *Vatsanabha*. **HINGU Asafoetida (*Ferula narthex*)⁶**-Has *Hrudya* (cardio protective), *Jwaraghna* (anti-pyretic). Anti-cholesterolemic effect is due to resin extract of *Hing*. Anti-hypertensive effect is due to aqueous extract. These factors may help to offset *Hrudayagati Avarodha*, *Moha* symptoms due to *Vatsanabha*. **TANKAN-(SUHAGA)** Salt of tetra Boric acid⁷-*Sthavaradi Visapaha* (neutralizes toxic effects of *Sthavara* (plants) & other such poisons) property able to counteract ill

effects like *Daha* (irritation), *Moha* (Delusion), *Hrudayagati Avarodha* (heart failure symptoms) of *Vatsanabha*. So these may be used as antidote of *Vatsanabha*.

2) **KUCHILA** (*Strynus nox vomica*) – **TAMBULA** (BETEL)-*Piper betel*⁸ has properties like *Vedanasthapak* (analgesic) effect. Methanolic extract of leaves shows analgesic effect. Bacteriostatic effect present in it has action on the plaque bacteria and thus controls dental plaque. These above features of *tambula* may be used to treat ill effects like *Angamarda* (body ache), *Danta Harsa* (Sensitive teeth) produced due to *Kuchila* to some extent.

3) **AHIPHENA** (*Papaver somniferum*) – GINGER (*Zingiber officinale*)⁹ has *Triptighna* (relieves pseudo satiation), *Rochana* (improves taste), *Deepan* (appetizer), *Pachan* (digestive) property souse in *Chardi* (vomiting). Active compounds like gingerol, hogoals, bisabolene, curcumin, zingiberene, salicylate, caffeic acid, capsaicin & other lipids act as remedy for G. I complaints. *Utejak* (stimulant property), *Vatasamak* property (*Vata* neutralizing) present in it provides *VedanaNivarana* (analgesic) action. Anti-prostaglandin compounds (Diarylhepatanoids & gingerol) present in it shows effectiveness in osteoarthritis, rheumatoid & muscle pain, pain relief in primary dysmenorrhea; *Sita Prasamana* & *Jwaraghna* property shows effectiveness in *Jwara*. Bioactive compounds & major constituents like gingerols has healing property. Due to presence of above features of ginger may combat ill effects of *Ahiphena* like vomiting, pain, fever etc.

4) **DHATURA** (*Datura metel*) SWEET FLAG (*Vaca*) *Acorus calamus*¹⁰ has *Vedanasthapaka* (analgesic) & *Sotha Hara* (anti-inflammatory) property. Rhizomes extract, leaf extract, acetone extract, ethanolic extract has anti-inflammatory effect. Methanolic extract, Ethanolic extract, alpha-asarone, calamus oil has anti convulsant effect. So these features of *Vaca* may be used to neutralize ill effects like *Gala Sotha* (inflammation), *Kaninika Vistar* (dilation of inner canthus of the eyes) of *Dhatura*.

5) **JAIPAL** (*Croton tiglium*)-**ELA** (Lesser cardamom) *Elettaria cardamomum*¹¹ has *Anulomaka* (carminative) property. Presence of components like ascorbic acid, carotenoid, anthocyanin, tocopherol, primarily phenolic compounds (flavonoids & phenolic acids) has antioxidant activity. Essential oil 1, 8-cineole of cardamom plant has anti-inflammatory effect, analgesic effect. Cardamom oil (seeds) has anti-spasmodic effect. Petroleum ether has gastro protective action. Crude extract & its aqueous fraction (fruit) has stimulatory effect. So these properties of *Ela* may help to counteract ill effects like *Tivra Virechan* (drastic purgative), *Antra Sotha* (intestinal inflammation), *Udara Sula* (pain abdomen), *Atopa* (flatulence) etc. of *Jaipal*.

6) **BHALLATAK** (*Semecarpus anacardium*)-**NARIKELA**¹² (*Cocos nucifera*) has *Pittasamak* (neutralizes *Pitta*), *Anulomana* (carminative), *Sula Prasamana* (analgesic)

action, anti-inflammatory & antinociceptive activity. Distilled extract like lipids, caprylic acid, lauric acid present in endocarp has Anti-microbial property, so use in (*Kustha Roga*, skin diseases).

TURMERIC (*Curcuma longa*)¹³ has *Ruchivardhak* (increase of taste), *Anuloman* (carminative), *Pittarechaka* (pitta excretion), *Krimighna* property (anthelmintic), *Rakta Prasadana* (blood purifier) as well as *Kusthaghna* property so use in *Rakta Vikara* (blood disorder), *Udarda* and *Sita-Pita Vikara* (Erysipelas & urticaria), *Kustha* (skin diseases), *Kandu* (itching). **KASAMARDA** (*Negro coffee*) *Cassia occidentalis*¹⁴ has *Deepan* (appetizer), *Vataanulomana* (carminative), *Pittasaraka* (pitta excretion), *Rechana* property. Due to *Kusthaghna* property, use in skin diseases. Methanol & aqueous extract has Antimicrobial property. Alcoholic, hydro-alcoholic & aqueous extracts shows anti-bacterial activity. **BHIBITAKI** (*Terminalia bellirica*)¹⁵ – Has *Deepan* (appetizer), *Anulomana* (carminative) property, *Kriminasak* property (Anti-Helminthic activity); Methanol extract proves its Anti-microbial. Aqueous extract has Bactericidal activity (higher concentration) & Bacteriostatic activity (low concentration). Anti-fungal activity is due to Ethanol extract of fruit. **ARJUNA**-(*Terminalia arjuna*)¹⁶; has *Sthambana* property, *Kusthagna* property. Bark has flavonoids like arjunolene, flavones, bicalein, quercetin, kempferol, pelargonidin shows Antibacterial activity. Tanins like pyrocatechols, punicallin, castalagin, casuariin, punicalagin, terchebulin, terflavin have Anti-oxidant, anti-microbial, Anti-fungal, Anti-bacterial, Hepato-protective effect. **CORIANDER** (*Coriandrum sativum*)¹⁷ has *Rochana*, (increases taste), *Deepan* (appetizer), *Pachan* (digestive), *Grahi* (absorbent), *Krimighna* (anthelmintic) properties. Bactericidal activity is due to Aliphatic (2E)-alkenals & alkenals from fresh leaves of *C. sativum*. Fungicidal activity is due to active constituents like 2-hexen-1-ol, 3 hexen-1-ol & cyclodecane in coriander essential oil. These above features of the drug may be used to counteract the ill effects of *Bhallatak* like *Vrana* (wound), *Sotha* & severe *Daha* (severe inflammation associated with pain & burning sensation)

4. Conclusion

In *Ayurveda*, ancient sages were not ignorant about this fact while facing lots of trouble during treatment with Herbo-mineral formulations which gave rise to lots of ill effects may be due to improper pharmaceutical techniques or not following treatment rules, they could discover lots of natural antidotes through their practical experience which has the power to reverse the toxic effects produced. Reality about these natural antitoxins they are readily available & can be used for long term without possessing any harmful effect. Selected antidotes are briefly discussed with *Ayurvedic* & modern properties, which would be surely beneficial for practical point of view.

Visa Dravya



Vatsanabha

Anti-Dotes



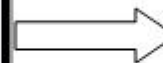
Pushniparni



Kuchila



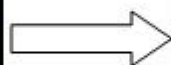
Betel leaf



Ahiphena



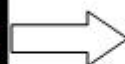
Ginger

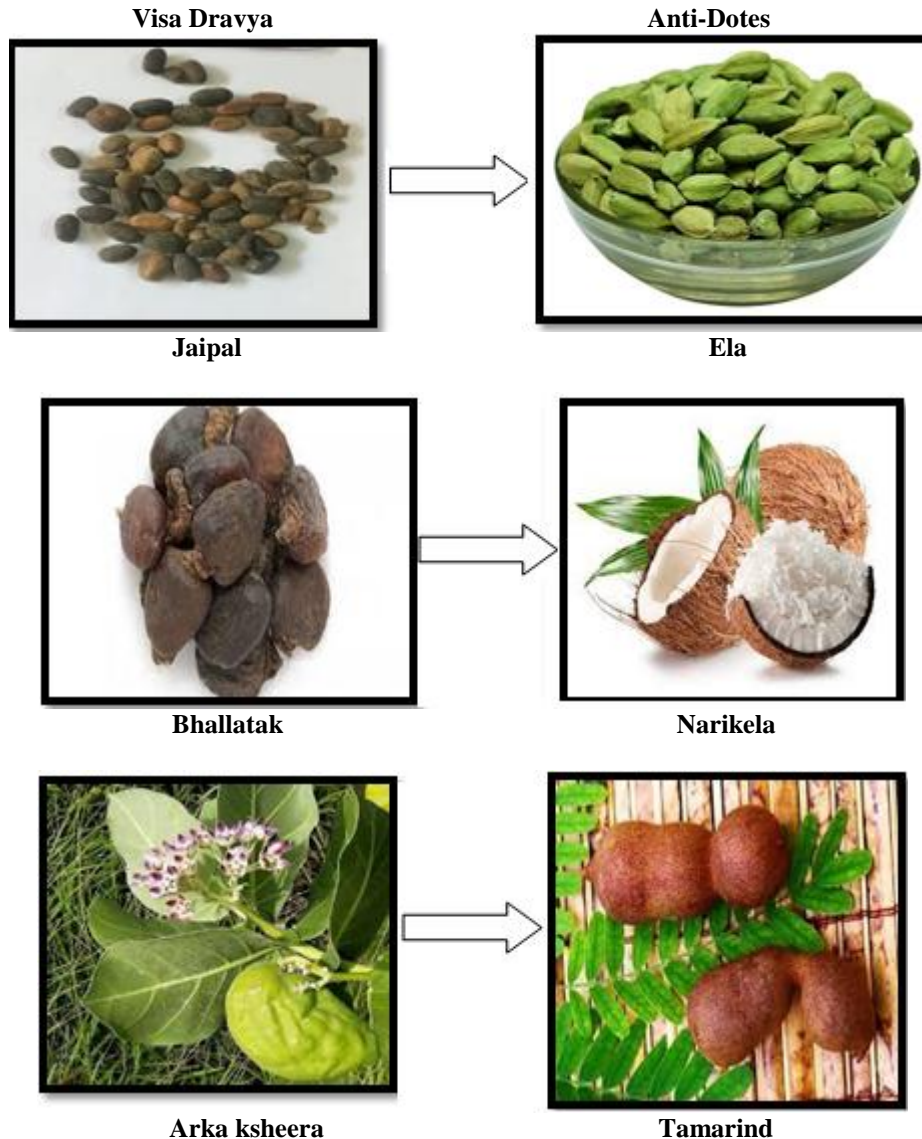


Dhatura



Vaca





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