“Tuttak Drava” an effective treatment in Ahiputana – A case study.
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Abstract:
Tuttha also known as “Copper Sulphate” is a crystalline aqueous mineral which has been in use in Ayurveda since ancient time. “Tuttak Drava” which is one of the ayurvedic kalpa mentioned by Rasatarangini is a kalpa of Copper Sulphate. Tuttha is widely used in skin conditions as per ayurvedic texts and the kalpas varies from aqueous solution, creams, ointments, suppositories to upto oral preparation. The respective contain mainly focus on use of “Tuttak Drava” (Aqueous solution of copper sulphate i.e. 500mg CuSO4 in 50ml Water) in skin condition primarily seen in child group i.e. Ahiputana (Napkin Rash). In 21st era the use of diapers is profoundly increased and due to lack of hygiene the cases of Ahiputana has been increased. Ahiputana which is Kapha-Pitta Pradhan avastha is subsided by Kapha-Pittaghna guna of Tuttha along with Vrana, Lekhana, Kushtaghna and Garavishaghna guna of Tuttha. A 6 months old female child suffering from Ahiputana with complains of erythema, discharge, skin excoriation, burning sensation and tenderness at legion was treated with local application of “Tuttha Drava” by cotton pad on legion every 6hrly for 5days. The subject got significant relief within the 5days.

Keywords: Tuttha, Copper Sulphate, Blue Vitriol, Skin disease, Ahiputana, Napkin rash.

Introduction:
Ahiputana, which is also known as diaper dermatitis is a commonly occurring skin condition which further if untreated gets complications and secondary infection. Both Acharya Sushruta and Vagbhatta has explained Ahiputana as a Rakta-Kaphaj Vyadi. Which is primarily caused due to unhygine. Mainly local sweat, urine and stool if not cleaned properly causes this skin condition. The skin irritation caused due to these waste products causes itching which leads to small papule and skin excoriating. From this papules and excoriated skin oozes secretions which further leads to secondary infections. The drug “Tuttak Drava” is nothing but 1-2 percent Aqueous solution of copper sulphate. “Tutta” is Tikta rasatmak hence it is Pitta-Kapha shamak and as it is Pittaghna so it is Raktaodosshara. If applied locally it is Grahi, Twacya, Kushtaghna, Vrana, Vranadosshahara, Gara-visha-dosha hara, Kandughna and Lekhana. All of these properties helps to relive sign and symptoms like Kandu, lasika straw, lalima, sphota, daha, toda, Vrana, putrstrava present in Ahiputana. In the described clinical case 6 months old female child who had complains of sphika
A case report as follow :-
A 6 month old female child came to us with chief complains of:
1) Guda pradeshi vranotpatti.
2) Phiktwak lalima.
3) Daha.
4) Sparsha-asahatva.
5) Lasika strav.
The child was having complains since 2 days.
History of present illness:
Child was all right prior 2 days since then she started the complains and then came to our hospital – SMBT Ayurveda Hospital OPD for management.
On examination:
Nadi: 110/min
Sparsha: Anusha
Mala: Samyak
Druka: Prakrut
Mutra: Samyak
Akruti: Madhyam
Jivha: Niram
Koshta: Madhyam
Shabda: Spashto
Bala: Madhyam

Local examination:
Skin excoriation – Present.
Small popular eruptions – Present.
Burning sensation (Hypersensitivity to touch) – Present.

Aim: To Study The Efficacy of Tutthak Drava in 6 months old female child suffering from Ahiputana.
Objective: To evaluate the effect of Tutthak Drava in a child suffering from Ahiputana.
Secondary Objective:
1. To evaluate the efficacy of Tutthak Drava on the basis of Ayurvedic criteria including “Rasa, Guna, Virya, Vipaka”, Samprapti ghatak and Samprapti Bhanga”.

2. To Study the Standard Preparation of Tutthak Drava as per mentioned in texts.

Materials and Methods:
Disease review:
According to Acharya Vagbhatta and Sushruta the sthanik Mala, sweda causes rakta and kapha dushti. This rakta and kapha further disturbs local dhatus including twak, rakta and mamsa. This dushti dushti causes local skin irritation, itching and rashes. When child scratches this rashes small wounds are made from which serous discharge is secreated. Further these small wounds combine together to form one large wound which is called “Ahiputana” which if not taken good care can go into “Paaka” condition. In Ahiputana continues contact with local Mala i.e sweda, mutra and Shakruta causes formation of garavisha at local mamsa dhatu. This vishar ghatak then causes irritation, inflammation, excoriation and popular eruptions at the skin. Thus to treat this wound caused by these local toxin one must follow the bahiparivarjanjana chikitsa to do sthanik shodhana of the skin. Also according to modern studies when the wound is open and has serous discharge it is most likely to get infected with microorganisms. Most commonly occurring staphylooccci are leading cause for the “Paaka” (secondary infection) condition. This may lead to further eruption of systemic signs and symptoms like fever.

SAMPRAPTI OF AHIPUTANA:
Poor Hygiene, not changing napkin pads time to time
Causes local irritation to the skin
Generates erythema and papules

Causes itching at the site

Child scratches the lesion which causes minor bruising

This bruising then secrets serous discharge

These small wounds combine together to form large single wound

Generates Ahiputana Vrana.

SAMPRAPTI GHATAK:

| Dosha          | Pitta, Rakta, Kapha. |
|----------------|----------------------|
| Dushya         | Rasa, Rakta, Mamsa.  |
| Srotasa        | Rasavaha, Raktavaha, Mansavaha. |
| Srotodushti    | Atipravruti.        |
| Prakara        | Bhrajaka Agni.      |
| Udbhavasthana  | Guda.               |
| Sanchar sthana | Sphika, Uru, Nitamba. |
| Adhishtana     | Guda.               |
| Rogamarga      | Bhaya.              |
| Swabhava       | Ashukari.           |
| Sadhyaasadhya   | Sadhya.             |
| UpaDrava       | Paakotpatti, Tvakvaivarnya. |

Drug review:

“Tuttha” is a crystalline solid fragile mineral salt which is soluble in water. Many ancient Ayurvedic texts explained properties and clinical administration of “Tuttha” in details. “Rasatarangini” described a kalpa named “Tutthak Drava” which is nothing but 1-2% Aquisous solution of Copper sulphate. As “Tuttha” is a toxic drug when taken orally though for bahirparimarjana chikitsa it is very useful to cure variety of skin conditions. In Ahiputana not only there is wound but also serous discharge and minor bruises are great source of having envision of secondary infection. According to modern studies the Copper sulphate has antimicrobial, antifungal properties which is helpful in such scenario. Also copper sulphate has great efficacy even to resistant staphylococci strains. Thus it is very helpful in “Paaka” condition.

The properties of “Tuttha” according to various granthakara as follows:

| Rasendrasarasangraha | Katu, Kashaya, Vishada, Laghu, Lekhana, Bhedana, Chakshushya, Krumighna, Kandughna, Vishahara. |
|----------------------|---------------------------------------------------------------|
| Bhaishajyaratnavali  | Vishahara, Gadhshoolahara, Kushtahara, Amlapittahara, Vibandhahara, Garaghna, |
| Rasatarangini       | Tikta, Twachya, Grahi, Kaphaghina, Chakshushya, Vranadoshahara. |

Methods:

Method of preparation of “Tutthak Drava”: दिनेन्द्रचतुर्गुर्जङ्ग तुर्थ निर्माणक्षमम्
परिन्यं तु सलिने पंचातोलकस्मिनि।
“Tutthak Drava” is prepared by adding 2-4 Gunja (250mg-500mg) “Tutthak” in 5 Tola(50ml) “jala”. That is; 1 part of Tuttha (Copper Sulphate) in 100 part of Jala (Distilled Water) in sterile container. When all the salt is dissolved in water then the preparation is ready to use and stored in sterile container for further use.

Dose: As per lesion; every 6 hourly with sterile cotton pad.
Route of administration: Topical application.

Centre of study: SMBT Ayurvedic collage and Hospital, Igatpuri, Nashik.
Method of sampling and study design: Simple randomised single case study.
Result:
Clinical examination of patient on follow up days revealed significant decrease in sign and symptoms daha, lasika strav and twak lalima also Vrana was healed within 5 days of drug application.

Discussion:
In Ahiputana the cause is “Atipravrutti of Doshas” as the local Doshas are vitiating due to improper hygiene. The increased Doshas should be levelled and for that shodhana is needed. In this case sthanik shodhana is more important than abhyantara shodhana. As the disease is of Bhahya marga. So bairparimajjana chikitsa is needed. The drug used in this case is one of the potent
bahirparimajjana drug. The “Tutthak Drava” is sheeta in sparsha so decreases the local daa and relives tenderness present at the lesion. The Kashaya-tikta rasa helps to level the vitiated Kapha and Pitta Doshas. Grahi and laghu guna decreases the strava oozing from wound and helps to contract the wound margins. Vishada, lekhana guna cleanse the wound and helps the wound floor for better reepithelization. As “Tuttha” it self is one of the kshara so it eliminates the local microbes present at the wound site and helps to prevent the “Paaka” stage. The guna and their Karmukta is explained in following chart:

| Dravya Guna (Properties of Drug) | Dravya Karmukta (Action of Drug) |
|----------------------------------|----------------------------------|
| Kashaya-Tikta rasa               | Balances the vitiated Pitta, Rakta and Kapha Doshas. |
| Laghu                            | Balances the Kapha dosha. |
| Grahi                            | Decreases the discharges from lesion and helps to bind the wound margins. |
| Vishada                          | Cleanse the lesion so helps wound healing. |
| Lekhana                          | Cleanse lesion and helps wound healing. |
| Kushtahara                       | Balances sthanik Doshas which caused this skin condition. |
| Visha-Gara-ghna                  | Eliminates toxins generated at the site due to excessive accumulation of Mala (sthanik sweda, mutra, Shakruta). |
| Vranadosahara                    | Cleanse wound i.e any discharge, slough or tissue debrides. |
| Kanduhara                        | Decreases the local skin irritation by Kaphaghna properties. |
| Krumihara                        | Eliminates local Krimi (microbes present in the wound). |

**Conclusion:**

As Tuttha Drava is easy to prepare and apply. The properties of drug effectively do samprapti bhanga of disease thereby the above case study proves that “Tuttha Drava” is effective ayurvedic management in childs suffering form Ahiputana.

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