Efficacy of homoeopathic doctrine of signature in the treatment of *paederus* dermatitis: A case report

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Abstract

*Paederus* dermatitis is a rare and peculiar type of irritant contact dermatitis caused by a Rove beetle belonging to the genus *Paederus*. This insect does not bite or sting, but releases a coelomic fluid when accidentally brushed or crushed on the skin. If not washed immediately, the chemical leads to form blisters on that exposed area. Doctrine of signature is the relation between the external physical characters of the drug substances and the signs and symptoms of the medicines produced during pathogenetic trial on healthy human beings. In Homoeopathy, the Doctrine of signature is one of the sources of *Materia medica*. Even though Doctrine of Signature is a source, every homoeopath should take the case thoroughly and use repertorization to prescribe the similimum.

Case Summary: A Male aged 27 years, came with complaints of Blisters on the neck due to crushing the Rove beetle (Nairobi fly) on his neck. After considering Doctrine of Signature along with detailed case taking and repertorization, he was prescribed CANTHARIS 200. The Blisters and the scar marks got completely reduced in a very short span of time. This shows that Homoeopathic management with the help of doctrine of signature and repertorization can treat the rare conditions like *paederus* dermatitis.

Keywords: *Paederus* dermatitis, rove beetle, doctrine of signature, homoeopathy, *Materia medica*, cantharidin, pederine

Introduction

*Paederus* dermatitis, also known as blister beetle dermatitis or dermatitis is a peculiar irritant contact dermatitis characterized by erythematobullous lesions or "blisters of sudden onset" on the exposed areas of the body [5]. The disease is caused by a Rove Beetle belonging to the genus called "*Paederus*" [1]. The genus, *Paederus* belongs to the family called "Staphylinidae", order called "Coleoptile", class called "Insecta" and consists of over 622 species which are distributed worldwide [7]. *Paederus* beetles have been associated with outbreaks of symptoms like dermatitis in various countries such as Australia, Sri Lanka, Malaysia, Nigeria, Kenya, Iran, Uganda, Okinawa, Sierra Leone, Central Africa, Argentina, Brazil, France, Venezuela and India. The incidence of cases are reported to be greater during the last quarter of the year, the period that immediately follows after the rainy season [4]. The Adults of these kind of beetles are usually 7-10 mm long and 0.5 mm wide, which is the size around one and half times that of a mosquito. They have a black head, lower abdomen and elytra (this structure covers the wings and first three abdominal segments) and a red thorax and upper abdomen. This beetle does not bite or sting, but when accidentally brushed against or crushing the beetle over the skin provokes the release of its coelomic fluid which contains highly poisonous substances such as cantharidin or pederin, a potent vesicant. The compound "Cantharidin" is found in the haemolymph of the beetle and then released when the insect is crushed on surface of the skin. A number of these insects secrete the caustic fluid via their leg joints when they are disturbed or crushed ("reflex bleeding"). The lesions are characteristically linear.

Once “Pederin or Cantharidin” is on the skin from the initial contact of the beetle, it may also be spread on any other location on the skin. "Mirror-image" or "Kissing Love bite" like lesions, where any two skin areas come in contact. Severe cases, in addition of occurring more extensive blistering, may also demonstrate other additional symptoms such as fever, neuralgia, arthralgia and vomiting. Washing the hands and the skin thoroughly with a soap and water is strongly recommended, if there is any contact with a rove beetle. The clinical features of *Paederus* dermatitis are Extensive Blistering, Erythema, Vesicles and Pustules.
The relation between the external characteristics of any substance correspond with its action. Hahnemann says in his prefix to his Materia medica that "The Nature makes each growth according to its own curative benefit". Doctrine of signature, as well as the Doctrine of signature is the relation between the external physical characters of the drug substances and the signs and symptoms of the medicines produced during pathogenetic trial or drug proving on healthy human beings. It is one of the sources of Homoeopathic Materia medica. Many stalwarts like Dr. C Hering, Dr. C.M. Boger, Dr H.A. Roberts and Dr. J.C. Burnett had supporting attitude towards this doctrine. Dr J.H. Clarke wrote in the introduction, of the remedy Magnesia Carbonica, that it is often found that the physical characteristics of any substance correspond with their true dynamic influences.

**Few examples**

1. **Pulsatilla**: Movement of the flowers—Changeability of *pulsatilla* is persistent. 
2. **Lachesis**: Snake is fretful suspicious and distend tongue—Patient is additionally same. 
3. **Chelidonium**: Yellow juice—Useful for jaundice. 
4. **Calcarea carb**: It is a Hardshell to secure the delicate body—Patient is delicate and needs to be assured. 
5. **Euphrasia**: Black spots on corolla resembles a pupil—Useful for eye symptoms.

Before Hahnemann, the development of Homoeopathic Materia medica was mostly based on the theoretical concept, where the Doctrine of Signature was a great source of Homoeopathic Materia medica. Hahnemann says that human health does not always allow medicines based on the doctrine of signature. Only the drugs which after drug proving on healthy human beings which reveal their original medicinal properties which are very similar in morbid state that can be administered for the ideal cure. It is based on the "Law of Similars" which Hahnemann says in his prefix to the proving of drug - *Chelidonium*.

**Case Report**

A Moderately built male, 27 years old, reported to the clinic with the complaint of lesion on his right side of the neck since 3-4 hours. Complaint started after he crushed the rove beetle on his neck when he felt something was crawling on his neck. The lesion is red in colour and has blisters on it. There is burning and smarting type of pain. He has intense pleasurable itching. His pain gets aggravates from any kind of touch. His complaint gets ameliorated from cold application, bathing and scratching which gives him pleasure.

There was no abnormality in his past history, allergic history and family history. In Personal history his Diet is mixed, Appetite is good - 3 times/day, Thirst is normal, Desires are nothing specific, Aversions are nothing specific, Micturition is normal 5-6/D, 0-1/N, Bowels: 1/day, satisfactory, Sleep is disturbed due to itching. Perspiration is moderate and he is a hot patient. When asked about his mental symptoms, he said that he is highly irritable since the complaints started, became restless and is having mental excitement, specially he was having excessive sexual desire since the complaints occurred. His vitals are normal. On Local examination, there is Reddish (Erythematous) Blisters on the right side of the neck and tenderness on touch.

**Totality of symptoms**

1. Irritable due to pain. 
2. Restlessness with mental excitement.
3. Excessive Sexual desire. 
4. Blisters. 
5. Touch aggravation, cold application or bathing amelioration. 
6. Intense Pleasurable Itching. 
7. Scratching amelioration 
8. Smarting pain with Burning sensation.

**Repertory Used**

Complete Repertory

**Repertorial totality**

1. **MIND - Satyriasis:** 
2. **MIND - Restlessness, nervousness:** Tendency: Sexual excitement, in: 
3. **MIND - Irritability Pain, during:** 
4. **SKIN - Eruptions: Blisters;** 
5. **SKIN - Eruptions: Blisters: Burn, as from a:** 
6. **SKIN - Eruptions: Painful: Sore, smarting:** 
7. **SKIN - Itching: Voluptuous:** 
8. **SKIN - Itching: Scratching: Amel:** 
9. **GENERALITIES - Bathing, washing Amel:** Cold:

Repertorisation was done using Hompath Software (complete repertory) (Mind Technologies private limited, Mumbai, Maharashtra State, India), and the repertorial result is shown in Table 1.

**Table 1:** Repertorisation table of first prescription done by repertorisation software
Result
5. Sep - 10/6.

Selection of remedy with potency
Cantharis 200

Intervention with justification
First prescription: On 30 December 2022, Cantharis 200, water dose for every 3 hours was given. Basis of prescription: Cantharis is selected on the basis of individualization, symptom totality with the consultation of Materia medica and the Doctrine of signature. As Cantharis is prepared from Tincture or trituration of living Spanish fly which is of paederus (family), Coleoptera (order) and Insecta (class). As of doctrine of signature, this family insects will produce coelomic fluid called Cantharidin and pederin when crushed on skin, causes blisters, burning, intense itching on the affected part. Cantharidin, in many sources taken as aphrodisiac because it has properties which causes excess sexual desire. Thus, overall, as the symptoms matches to Cantharis according to repertorization and also Doctrine of Signature, Cantharis is selected as a perfect remedy.

Follow up and outcomes
Follow-up of the patient was assessed for every 6 hours and later on for every day. The date wise detailed follow-ups are summarized in Table 1.

Table 1: Time line including follow-up of the case

<table>
<thead>
<tr>
<th>Date</th>
<th>Symptoms</th>
<th>Medicine with Doses</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 December 2022</td>
<td>1. Redness and Blisters got reduced by 80%. 2. Pain reduced by 80%. 3. Sexual desire slightly reduced.</td>
<td>1. Cantharis 200, Water dose every 10 hours.</td>
<td>As there was improvement noted, Cantharis 200 was continued.</td>
</tr>
<tr>
<td>01 January 2023</td>
<td>1. Blisters got completely reduced. 2. Pain reduced completely. 3. Sexual desire reduced completely.</td>
<td>1. Cantharis 200 C, 1 dose.</td>
<td>No recurrence of the eruptions is seen and all his mentals are improved. Therefore, the same medicine was continued.</td>
</tr>
<tr>
<td>02 January 2023</td>
<td>1. No new complaints. Patient is physically and mentally healthy.</td>
<td>No medication</td>
<td>The symptoms are cured completely, so the treatment is stopped.</td>
</tr>
</tbody>
</table>

Result
The Erythematous blisters on the neck got reduced from the 2nd water dose and itching burning sensations got completely reduced without any scar marks along with his irritation, mental sexual excitement with excessive sexual desire by the end of the treatment. Cantharis 200C showed a marked improvement.

Case report of Paederus Dermatitis

![Fig 1: 30/12/2022](image1)
![Fig 2: 30/12/2022](image2)
![Fig 3: 31/12/2022](image3)
![Fig 4: 01/01/2023](image4)
![Fig 5: 02/01/2023](image5)
Discussion
The Patient presented with the complaints of reddish blisters with sudden onset on the right side of his neck. This case was treated with individualized homoeopathic medicine along with the doctrine of signature, which showed complete recovery without any recurrence in the follow up period. Dr. Vishal Deshpande presented an article of "Homoeopathic Management of Insect Bite: A Case Study" in which Apis mellifica 200 was prescribed to treated successfully [6]. As this is a very rare condition, there are very few articles related to Paederus dermatitis in the field of Homoeopathy.

Conclusion
Homoeopathy is a specialized system of medicine. It treats patient as whole and not just symptoms; in which the doctrine of signature plays a significant role in prescribing the perfect remedy. A complete recovery of the blisters including the scar mark within the span of 3 days shows that Homoeopathic treatment in Acute conditions shows tremendous effect on the patients.

Conflict of Interest
Not available

Financial Support
Not available

Declaration of patient consent
An informed consent was received from the patient for publication of this case report, provides the identity of the patient is not revealed.

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References

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