ABSTRACT
A male child aged 11yrs presented with swelling and localized pain, tenderness, erythema, edema over left eye lids with no any history of trauma or insect bite. He was diagnosed with periorbital cellulitis which is a bacterial infection characterized by acute or chronic diffuse, spreading, edematous non suppurative inflammation of inner layers of the skin namely dermis and subcutaneous. According to Ayurveda this can be correlated with Vranashopha. The modern line of treatment of periorbital cellulitis is antibiotics, anti-inflammatory, vitamins & if condition does not subside surgical interference is required. Acharya Sushruta, Charaka, Vagbhata, Chakradatta has described Raktmokshan for the management of Vranashotha. So patient was treated with Jalaukavacharan, 2 settings each after an interval of 1 day. The complaints gradually subsided after 2 settings. Thus this patient was successfully treated with Jalaukavacharana with no recurrence or any complication.

KEYWORDS: Vranashopha, raktamokshan, periorbital cellulitis.

INTRODUCTION
The aim of all medical sciences is to provide better health to every human being so as to have a disease free life. Peri-orbital cellulitis is one of the common but potentially serious clinical conditions which come across in our day to day life.

Peri-orbital cellulitis is a non-necrotizing inflammation of subcutaneous tissue of skin and subcutaneous caused by staphylococcus pyogenes (mainly) often followed by a scratch over the eye lid. The main signs of peri- orbital cellulitis are swelling, redness, pain and local
temperature. It can cause mild discomfort to severe complications like sepsis, local gangrene, fever, slightly blurred vision, teary eyes. Cellulitis can be compared to Vranashopha which is in detail described by Sushruta in the earlier phase of Vrana. Vranashopha is the preliminary stage of nija vrana. The term shopha refers to swelling disorders.

Sthanika shopha is referred to as Vranashopha. Amawastha (early stage of inflammatory phase), pachyamanawastha (true inflammatory phase), and pakwawastha (suppurative stage) are 3 progressive stage of vranashopha. Based on the vitiation of dosha, 6 different types of vranashopa are explained by Acharya on their lakshanas, such as color, pain etc. the sufferer experience more pain in Ama and Pachyamananawastha. Hence patient wants instant relief in these stages.

Shashti-upakrama (sixty procedures) in which first 12 procedures for management of vranashopha and rest of the procedure for vrana are told by Sushruta.

But these all are grossly included in Seven pillars for the management of inflammatory lesion (vranashopha) are described by Sushruta. Out of the seven pillars avasechan i.e, bloodletting (Raktamokshan) is an ideal treatment. Leech therapy (Jalaukavacharan) is a well-known and admired therapy in the treatment of Cellulitis (vranasopha).

CASE STUDY

Material and Method- Pre-Procedure

- Patient’s well informed written consent was taken.
- Following routine investigation was done CBC with ESR, BT, CT, HIVI & II, HBsAg which were under normal limits.
- Leeches were transferred to a bowl containing turmeric paste to activate them.
- Later to another bowl containing fresh water.

Procedure

- Leech was applied over the most prominent part of the swelling.
- Leech got attached and was covered with cotton and sprinkling of cold water over it was done.
- After some time of blood sucking the leech detached from the site.
Post- Procedure
- The site was cleaned.
- Turmeric powder sprinkled to the bleeding site and bandaging was done.
- And further 1 more leech application was repeated the next day.

OBSERVATION

![Fig. 1- On the day of visit.](image1)

![Fig. 2- First leech application on the day of visit.](image2)
RESULT
In a total 2 sittings of Leech therapy. It is found that leech therapy in Peri-orbital cellulitis is highly effective and has less complication.

DISCUSSION
Present study dealt with efficacy of Leech application in Peri-orbital Cellulitis. This is an emergency and requires intravenous antibiotics. Acharya Sushrut, Vangasena etc. has mentioned simple method of leech application in the management of Vranshotha to reduce pain & to avoid suppuration.

Various stages of Vranshotha i.e. ama, Pachya & Pakwa awastha are decided according to history of illness.
Upto 0-3 days Condition is considered Amawstha
From 3-6 days Condition is considered Pachyamanawastha
After 6 days Condition is Pakwawstha.

Detail result of the patients were shown in the observations. It was observed that in leech application in the stage of amawstha symptoms were subsided.

Mode of Action
The samprapti of vransshopha is characterised by raktadushti and localized accumulation of dushit rakta. Raktamokshana procedure by its mechanism arrests the progress of vransshopha and removes the vitiated rakta from the disease site. Leech therapy involves an
initial bite, which is usually painless (leech saliva contains a mild anesthetic), and its therapeutic benefits are derived from the blood removed during the biting, and also from the vasodilator contained in the leech saliva. Salivary glands of a medical leech contain more than 100 bioactive substances and the salivary gland secretion has anti-edematous, bacteriostatic, and analgesic effects; it possesses resolving activity, eliminates microcirculation disorders, restores the damaged vascular permeability of tissues and organs, eliminates hypoxia (oxygen starvation), reduces blood pressure, increases immune system activity, detoxifies the organism by antioxidant pathways. The molecules existing in leech saliva and the most studied to date include:

- Hyaluronidase (spreading factor): Facilitates the penetration and diffusion of pharmacologically active substances into the tissues, especially in joint pain and has antibiotic properties.
- Bdellins: Anti-inflammatory effect and inhibits trypsin, and plasmin
- Chloromycetin: Potent antibiotic
- Tryptase inhibitor: Inhibits proteolytic enzymes of host mast cells
- Eglins: Acts as anti-inflammatory
- Anesthetic-like substances: Reduce pain during biting by a leech
- Histamine-like substances: A vasodilator increases the inflow of blood at the bite.
- Carboxypeptidase-A inhibitors: Increase the inflow of blood
- Acetylcholine: Vasodilator

**CONCLUSION**

- This study has provided cheap, safe & effective method for the treatment of Peri-orbital Cellulitis without any side effect.
- It can be used where minimum facilities of treatment are available.
- Leeches can be an important tool in the hands of today’s Surgeons to treat various medico-surgical conditions.
- Application of leeches has been found very effective in the management of various stages of Vranashopha

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