

**MANAGEMENT OF FILAMENTARY KERATOPATHY AND CORNEAL ULCERS**  
**W.S.R. SAVRANA SHUKLA WITH JALAUKAVACHARAN, ASHCHYOTANA & NASYA**  
**– A CASE STUDY****\*Dr. A. B. Deshmukh and Dr. Snehal U. Shelar**

Govt. Ayurved College Nanded.

**\*Corresponding Author: Dr. A. B. Deshmukh**

Govt. Ayurved College Nanded.

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**ABSTRACT**

**Background:** A vaccine is a way to build our body's natural immunity to a disease before one get sick. This keeps us from getting and spreading the disease. Vaccination is an injection or a procedure or a treatment with a vaccine to produce immunity against a disease, where they make the body stronger against a particular disease. Vaccinations are an important part of family and public health, vaccines prevent the spread of contagious, dangerous, and deadly diseases. Adverse events following immunization(AEFI) main role is to observe immunization safety, detect and respond to adverse events; correct unsafe immunization practices, reduce the negative impact of the health and contribute to the quality of immunization activities. Most of them are mild and do not last for long. Some of the serious adverse reactions to vaccines are serious allergic reactions, immune thrombolytic purpura, febrile seizures, etc., Among them common ones are febrile seizures, injection site reactions and allergic reactions. **Objectives:** The main objective was to identify and evaluate the adverse reactions following vaccination. **Materials and Methods:** A retrospective study in the pediatric department of Cheluvamba Hospital, Mysore Medical College and Research Institute, Mysore from over a period of 3 months. Data collected from 2017 January to 2019 December with a sample size of 115 cases. The data obtained was analyzed by using SPSS version 20. **Result:** Among 115 patients 72(62.3%) were male and 43 (37.4%) patients were female. In this study 75 (65.2%) patients were at age group 1month-1year. The most commonly reported AEFI is febrile seizures of about 37.4% (n=75). Adverse events were related to Pentavalent (47.8%) followed DPT (19.1%) vaccines. 7 deaths were reported followed by pentavalent vaccination. **Conclusion:** The study was conducted to identify and evaluate the most common Adverse events following immunization. In the modern era of science and technology, no child should suffer from a disease which can be prevented by a vaccine. So it is very important to provide vaccination awareness among the population. All the tertiary care centres should maintain detailed information's about all vaccinated children and reports of adverse events associated with it, to overcome underreporting of AEFI.

**KEYWORDS:** AEFI (adverse events following immunization), seizures, health, safety, vaccination.**INTRODUCTION**

Filamentary keratopathy is a condition where a loose area of epithelium acts as a focus for deposition of mucous & adhere to corneal surface causing pain & F.B. sensation. The etiology of filamentary keratopathy is related to many ocular & systemic diseases. Ocular causes consists of aqueous deficiency, excessive contact lens wear, corneal epithelial instability (corneal graft, cataract surgery, refractive surgery, superior limbic keratopathy, etc), while systemic diseases comprising ocular symptoms are rheumatic arthritis, systemic lupus erythematosus, hypertension, diabetic retinopathy.

Savrana shukla described by Acharyas under krishnagat rogas.

Savrana shukla can be correlated with discontinuation in

normal epithelial surface of cornea associated with surrounding corneal tissue oedema. Etiological factors in production of Savrana shukla in present case is Secondary Sjogrens syndrome interlinked with Rheumatoid arthritis which causes corneal dryness, prolonged use of systemic immunosuppressant, steroid & local antibiotics.

**CASE STUDY**

A 54 year old married hindu female (house wife) came to shalakyatantra OPD of our hospital with presenting complaints as follows.

1. Grittiness of both eyes with watery discharge since 2 years
2. Redness of both eyes with headache since 7 months
3. Irritation of both eyes (RE> LE)

**History**

She is known case of hypertension since 2004(15yr) & rheumatoid arthritis since 2011(9yr). She is on tablet T. Telmasartan 40mg OD for hypertension, T. Prednisolone 10mg OD NSAID's, Vitamin D, Pantaprazole & calcium supplements for rheumatoid arthritis. She developed

ophthalmic complaints of dry eye since two years for which she has taken various treatment including lubricants eye drops, antibiotic eye drops, ointments but condition worsened. She was now on carboxymethyl cellulose eye drops, immunosuppressant tablets and gatifloxacin eye drops.

**Pre treatment examination**

	OD	OS
<b>Eyelash</b>	No abnormality detected	No abnormality detected
<b>Eyelids</b>	Inner margins are round with congestion on palpebral conjunctiva	Inner margins are round with congestion on palpebralM conjunctiva
<b>Conjunctiva</b>	Mild conjunctival & ciliary congestion	Moderate conjunctival & ciliary congestion
<b>Cornea</b>	Corneal filaments, epithelial defect, minimal central slough & surrounding oedema with 3 nebular opacities	Corneal filaments with central epithelial lesion, minimal whitish slough with 2 large macular opacities
<b>Pupil</b>	Normal size, shape & reaction	Normal size, shape & reaction
<b>AC</b>	Normal	Normal
<b>Lens</b>	Immature senile cataract	Immature senile cataract
<b>IOP</b>	14.6 mmHg	17.3 mmHg
<b>V/A</b>	Vn – 6/24p pH- 6/9p	Vn – 6/36 pH-6/12
<b>Near vision</b>	N/8	N/8

**Pre treatment Schirmer's test**

Test is done with help of Whatman-41 filter paper strip with topical anaesthesia, strip folded 5mm from the end of lower eyelid. After 5min, wetting of the paper strip from bent end is measured.

Schirmers test-

RE: 5mm

LE: 8mm

**Diagnosis**

Considering signs, symptoms & schirmers test, above patient was diagnosed as filamentous keratopathy with corneal ulcer (savrana shukla) & dry eyes due to secondary type Sjogren's syndrome.

**Line of Treatment**

1. Jalaukavacharan
2. Rajanyadi ashchyotana
3. Anutaila nasya

**Jalaukavacharana**

Considering acute inflammatory phase of corneal ulcer Jalaukavacharan is attempted first as is recommended by ancient texts. Jalaukavacharan with 3 jalaukas was done. No other modern medicine was prescribed during course of treatment except continuing Gatifloxacin eye drops 2drops QID & Cap. Tacrolimus 0.5mg OD.

Jalaukavacharan attempted at three sites wise- Upnasika- near nasal bridge

Lalata – forehead of affected site Apanga- near lateral canthus

Nirvish jalaukas were selected for jalaukavacharan, skin is cleaned with gauze. Three jalaukas were applied & covered with wet gauze. To release jalaukas from skin, some haridra churna sprinkled near its mouth. Haridra churna & gauze were put at wound site & small bandage applied.

**Aschyotana – Rajanyadi ashchyotana**

In second phase, Rajanyadi ashchyotana is done 2drops TDS for 14 days continuously.

Sr no	Dravya	Latin name	Rasa	Virya	Vipak	Doshaghanata	Part used
1.	Haridra	Curcum longa	Tikta-Madhur	Ushna	Katu	Kaphaghna, pittaghna, raktadoshahara, vishaghan	Kanda
2.	Daruharidra	Cedrus deodara	Tikta	Ushna	Katu	Kaphaghna, vataghna, raktadoshahara, pramehaghna	Kanda- sara
3.	Shunthi	Zinziber officinale	Katu	Ushna	Madhur	Rakta-pittaghna, chakshushya, kaphaghna, jwaraghna	Kanda
4.	Saindhava	Rock salt	Lavana	Sheeta		Tridoshghna, chakshushya, vrushya, hrudya	
5.	Go-ghrita		Madhur	Sheeta	Madhur	Tridoshaghna, chakshushya	

**Nasya – Anutaila nasya**

In second phase combined with aschyotana, Anutaila

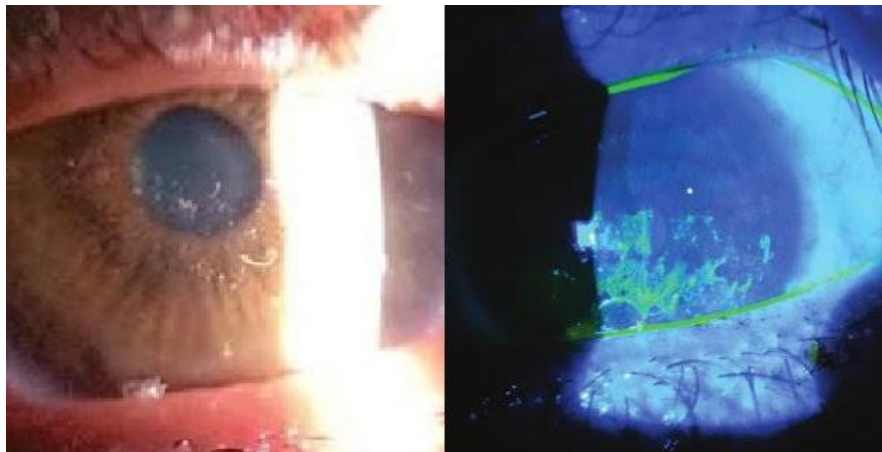
nasya were given prior with sthanik snehana & swedana

6 drops in each nostrils for 7 days.

**Post treatment examination**

	OD	OS
<b>Eyelash</b>	No abnormality detected	No abnormality detected
<b>Eyelids</b>	Inner margins are round with no congestion of palpebral & bulbar conjunctiva	Inner margins are round with no congestion of palpebral & bulbar conjunctiva
<b>Conjunctiva</b>	No congestion	Mild congestion
<b>Cornea</b>	Corneal filaments absent, corneal oedema with epithelial lesion reduced	Corneal filaments absent, corneal oedema with epithelial lesion reduced
<b>Pupil</b>	Normal size, shape & reaction	Normal size, shape & reaction
<b>AC</b>	Normal	Normal
<b>Lens</b>	Immature senile cataract	Immature senile cataract
<b>IOP</b>	12.2 mmHg	14.6 mmHg
<b>V/A</b>	Vn – 6/18p pH- 6/9p	Vn – 6/36 pH-6/12
<b>Near vision</b>	N/8	N/8

**Before treatment****After treatment**

**Before treatment**

(Slit lamp examination showing filament of cornea which get stained with fluorescein)

**After treatment**

(Post treatment picture of clear cornea)

Post treatment schirmer test - RE: 10mm LE: 12mm

**RESULT**

At 24hrs of jalaukavacharana patient was examined, patient was devoid of pain & corneal oedema was reduced. After Rajnayadi ashchytana patient was totally pain free. There is no discharge, filaments & congestion.

**DISCUSSION**

It's a case of Filamentary Keratopathy with corneal ulcer caused dry eyes due to secondary type Sjogrens syndrome associated with Rheumatoid arthritis.

Shushruta has advocated Raktamokshana in Raktaj vyadhi. Jalaukavacharan is preferred way of raktamokshana in ophthalmic disorders. Hence jalaukavacharan was selected as treatment of choice. Saliva of jalauka contains Bdelins, Eglins which have analgesic & anti-inflammatory properties. Acetyl choline of jalauka's saliva stimulates parasympathetic action of oculomotor & facial nerves. Hyluronidase carboxypeptidase also cause vasodilatation & enhance blood supply to the affected organ. It is known spreading factor. It increase tissue permeability & facilitates intracellular fluid movements. It depolymerises hyluronic acid hence facilitates diffusion & penetration of drug at sites. All these factors contributes to reduce inflammation of savrana shukla.

Ashtanga Hridaya states that Ashchytana is the first important & beneficial procdedure to begin with in all ophthalmic diseases. Being constituted by various drugs, it reduces symptoms, pain, lacrimation & redness. In Rajanyadi ashcyotana, Sneha Go-grita is used because it is yogvahi & follows sanskara. Properties of Haridra, Daruharidra, Shunthi, Saindhava are carried by the ghrita. Shunthi, Saindhava are lekhan & shothaghna. Haridra & Daruharidra are netrya, vranashodhan & rakta-pitta shaman. Along with ghrita these medicines have performed action of vrana shodhana first & then helped in vrana ropana. Shunthi & Saindhava have not only performed vrana lekhan & shodhana but helped in vatashamana & lacrimal secretions.

Acharya shushruta has advocated Anutaila nasya in shushkakshipaka. Nose is one among Panchadyanendriya whose function are not only limited to olfaction & respiration but also considered as a pathway for drug administration through nose as Nasya reaches to the brain & eliminates the morbid Doshas responsible for production of disease. Nasya drava acts by reaching shringataka marma. Shringataka marma is a main vital point situated in the brain corresponding to nerves centre which consisting of nerve cells & fibre responsible for the function of speech- Broca's area, vision, hearing, taste & smell. Anutaila nasya is sukshma & yogvahi which reaches in srotas more effectively & stimulates the secretion of normal tears which is also

helpful in deficient tear pathology of dry eye & again maintain the continuity of tear film. Anutaila pacifies the vitiated vata & pitta of shushkakshipaka.

## CONCLUSION

Raktamokshana is effective in reducing inflammatory changes & enhancing healing of corneal ulcer. Rajanyadi ashchyotana & Anutaila nasya is useful in dry eye condition. Justified & timely use of above therapies is effective in this complicated case of filamentary keratopathy with corneal ulcer with dry eyes due to secondary type Sjogrens syndrome associated with Rheumatoid arthritis.

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