



DEMODEX BLEPHARITIS [CASE REPORT]

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ABSTRACT **Background:** Normal interactions between these mites and people are commensal; nevertheless, in some illness conditions, the relationship with Demodex becomes more parasitic. **Case Report:** A 35 yr old lady presented to our OPD with the complaints of itching, burning sensation in both upper lid of both the eyes since last 7 days. On examination, multiple black dots were seen in the upper eyelid and on slit lamp examination, few nits were seen attached in the upper lid. The nits were mechanically removed under slit lamp examination as much as possible, with the help of forceps under topical anaesthesia. After removal of nits, topical antibiotics were instilled with application of eye ointment Moxifloxacin and patient was asked to follow up after 7 days. The patient was completely treated and was asymptotically better as was seen on the follow up. **Conclusion:** Demodex and other microorganisms may play a major role in some patients- Demodex folliculorum longus in anterior blepharitis and Demodex folliculorum brevis in posterior blepharitis. Timely correct diagnosis and therefore symptomatic treatment has lead to complete success of the disease.

KEYWORDS : Demodex, blepharitis, infestation, ocular demodicosis

INTRODUCTION

Demodex, a genus of small parasitic mites affecting mammals, was first identified in 1841. Demodex was first mentioned in literature more than 176 years ago, and ophthalmic literature on the subject first appeared in 1967. Demodex folliculorum and Demodex brevis are the only two mites species that have an impact on human skin^[1]. Ocular demodicosis can result from Demodex infestation in the eye after it has affected the facial skin. The two Demodex mites have different morphologies and environments.

The larger one, *D. folliculorum* at about 0.3–0.4 mm long, congregates as a group in the hair follicle, while the smaller one, *D. brevis* at about 0.2–0.3 mm long, resides solitarily in the sebaceous gland^[2]. Demodex mites have a 3–4 week life cycle from the egg to the adult stage 5. Five days after oviposition, females may continue to survive. Demodex mites are readily transferred via skin-to-skin contact^[2].

Case Study

A 35 yr old lady presented to our OPD with the complaints of itching, burning sensation in both upper lid of both the eyes since last 7 days. On examination, multiple black dots were seen in the upper eyelid and on slit lamp examination, few nits were seen attached in the upper lid. The visual acuity of BE was 6/12.

The patient was also sent for dermatology reference for ruling out any systemic infestation. There was no history of any systemic illness. After making out the diagnosis of Demodex infestation, further management was planned.

Management:

The nits were mechanically removed under slit lamp examination as much as possible, with the help of forceps under topical anaesthesia. After removal of nits, topical antibiotics were instilled with application of eye ointment Moxifloxacin and then it was patched. She was advised to maintain lid hygiene properly and to take proper medications as was advised. She was told to follow up in 7 days to look for any recurrences of the infestation.

Tea tree oil (TTO) lid scrapes are used regularly to eradicate Demodex infestations. The therapeutic dose of 50% TTO was first employed, and it was found to lessen signs and inflammation of the cornea, conjunctiva, and lid margin^[3].

However, some people experienced irritation from this dosage. Terpinen-4-ol (T4O), the active component of TTO, was subsequently identified. T4O was more efficacious at TTO equivalent dosages, allowing for therapeutic efficacy at lower concentrations^[4].



Figure 1: The above pic shows nits adhered in the lid margins as seen on slit-lamp examination

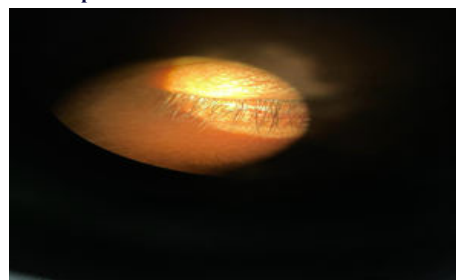


Figure 2: This is the picture taken after the mechanical removal of nits from the upper lid margin

CONCLUSIONS

After careful clinical findings and on slit lamp examination the diagnosis of Demodex Infestation was made and the treatment was started, carefully the nits were mechanically removed with the help of forceps and further medications and lid hygiene was advised. The patient improved completely after the medications.

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