

Is the Meibopatch heated pad useful in treating patients with Meibomian gland related dry eye disease? - Assessing Tolerability, Acceptance, and Effectiveness

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Introduction

- **Dry Eye Syndrome (DES)** significantly impacts vision-related quality of life and poses a substantial financial burden in ophthalmology practice. [1]
- Projected expenditure on DES treatments is estimated to exceed **6.6 billion** USD by 2027. [2]Although there are no current guidelines for management, the Meibopatch (VISUfarma International, Valbonne, France) represents one of the latest devices designed to enhance treatment adherence and aid in managing DES
- The long-term acceptance and efficacy of Meibopatch among patients with posterior blepharitis, a condition closely linked with Meibomian gland dysfunction (MGD), has yet to be demonstrated.

Aim

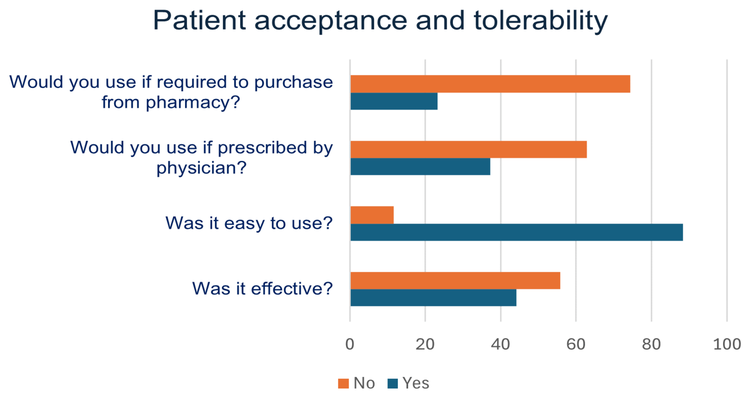
To describe the effectiveness, tolerability, and patient reported acceptance of the Meibopatch among a cohort of patients with posterior blepharitis

Methods and materials

- This was a cohort study where patients were recruited during clinic appointments at Singleton Hospital, Swansea, UK
- Patients were asked to self-administer Meibopatch treatment for 4 weeks
- Patients were asked to completed the Ocular Surface Disease Index (OSDI) was used to assess symptoms at baseline and after 4 weeks of treatment.[3]
- Additional inquiries regarding acceptability and tolerability were completed using a post treatment questionnaire.
- The two tailed paired t-test was used for comparison of pre- and post-treatment OSDI scores. A p value of ≤0.05 was considered statistically significant. Statistical analysis was carried out using STATA Version 13.1.

Results

- 43 patients were recruited.
- The baseline mean pre-treatment OSDI score ± standard deviation (SD) of all patients was 47.9±16.4. The mean post-treatment OSDI value ± SD of all patients was 37.7±14.9. T-test was demonstrated to be statistically significant, favoring a **reduction in OSDI** scores in the four weeks following treatment with the Meibopatch (p=0.0005).
- Patient's response to the second questionnaire are demonstrated in the graphs below.



Discussion

- When focusing specifically on the results attained from OSDI scoring, the current study demonstrates significant improvement in dry eye symptoms after repeated administration of the Meibopatch for the duration of four weeks. These findings are consistent to previous research by Baumann et al [4], who also demonstrate significant improvement in ODSI scores after treatment with the Meibopatch.
- Interestingly, this is in direct conflict with our secondary questionnaire, aimed to gauge patient satisfaction, tolerability and acceptance.
- Such recognizable inconsistencies imply the OSDI questionnaire is ineffective at measuring a key aspect of patient satisfaction. Only 44.2% of patients in the current study responded they found Meibopatch treatment to be effective, casting doubt on the validity of previous research utilizing the OSDI to establish efficacy.

Take home message

- Meibopatch is a substantial, safe form of therapy for blepharitis that is found very easy to use by patients.
- The effectiveness of this therapy is contentious as the significant reduction in symptoms noted from the ODSI scores are not reflective of the patient reported outcomes concerning satisfaction and effectiveness
- Future efforts are needed to establish 1) the validity of OSDI in patients with blepharitis, and 2) patient important outcomes in the field of DES.
- Patients are idiosyncratic and ophthalmology is as much art as science!

References

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