Audit of electrolysis in management of trichiasis

Dimitrios Kapantais, Helen Garrott, Rebecca Ford

Bristol Eye Hospital,

University Hospitals Bristol and Weston NHS Foundation Trust

Abstract

Background/Objectives

- To investigate the efficiency of electrolysis for the treatment of trichiasis and distichiasis.
- To compare the outcomes of success depending on the treated eyelids, the indication of electrolysis and seniority of the surgeon.

Subjects/Methods

- Review of medical records of all patients who had electrolysis for trichiasis or distichiasis from November 2015 to November 2020.
- Gender, age, indication, eyelid treated, surgeon's grade, number of electrolysis sessions, outcome, the time between sessions and time to the last follow-up were documented.

Results

- 187 patients who had primary electrolysis during the study period and no history of previous trichiasis treatment were included in the analysis.
- Consultant grade surgeons had a significantly higher success rate after the first electrolysis sessions than trainee-level surgeons (p = 0.048).
- The success rate of patients receiving treatment in their upper or upper and lower eyelids at the same time was significantly lower than the respective percentage of patients having treatment in their lower eyelids (p = 0.005).

Conclusions

- Improved departmental efficiency could be achieved by listing patients with recurrent trichiasis or distichiasis, especially in their upper eyelids after electrolysis, in a consultant supervised theatre list.
- A higher quality of training of ophthalmology residents in electrolysis was proposed.

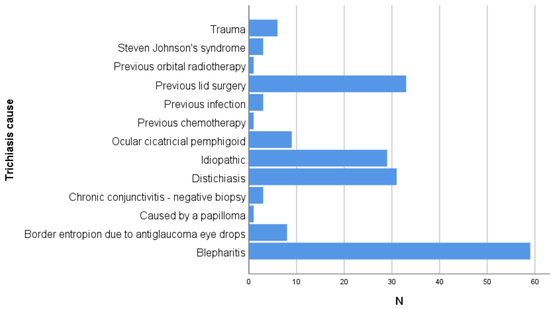
Correspondence: Dimitrios Kapantais
Dimitrios.Kapantais@nhs.net

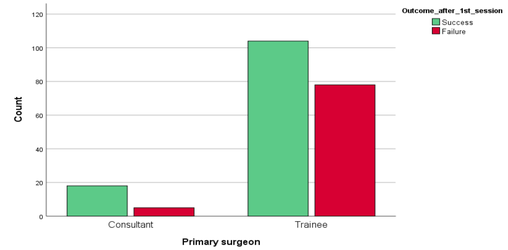
Key findings:

- Our success rate was 61% after one electrolysis session, increasing to 80.75% after 2-3 sessions (slightly below average reported in literature).
- The majority of our cases were performed by trainees.
- Consultant surgeons had a higher success rate after the first electrolysis treatment than training grade surgeons.
- The success rate for patients receiving treatment in their lower lids only was higher than that for those having treatment to upper lids or both upper and lower.

Changes we are implementing:

- Improvement in quality of training & supervision of trainees doing this procedure.
- Instructional video of electrolysis filmed.
- Recurrent cases, especially those involving upper lids, to be treated on a consultant-supervised theatre list.





	Success rates after first electrolysis session				Statistical difference between groups
Gender	Male 61/104 (58.7%)	Female 53/83 (63.9%)			p=0.469
Age	< 75 years 58/98 (59.2%)	≥75 years 56/89 (62.9%)			p=0.601
Indication	Blepharitis 31/59 (52.5%)	Distichiasis 20/31 (64.5%)	Idiopathic 21/29 (72.4%)	Previous lid surgery 23/33 (69.7%)	p=0.213
Eyelid(-s) treated	Upper eyelid 25/50 (50%)	Lower eyelid 82/118 (69.5%)	Upper and lower eyelid 7/19 (36.8%)		p=0.005
Surgeon grade	Consultant 12/14 (85.7%)	Trainee 102/173 (59.0%)			p=0.048

References

- De Figueiredo AR, Soares EJ. Trichiasis: diagnosis and management: Long-term follow-up of 216 cases. Orbit. 1992 Jan 1;11(3):137-46.
- Khandwala M, Hussain M, Jones C. The Time Consuming Lash: An Audit of Trichiasis Management. IOVS. 2008 May 14;49(13):5001-5001.
- Sakarya Y, Sakarya R, Yildihm A. Electrolysis treatment of trichiasis by using ultra-fine needle. Eur J Ophthal. 2010 Jul;20(4):664-8.
- Kezirian GM. Treatment of localized trichiasis with radiosurgery. Ophthalmic Plast Reconstr Surg. 1993 Dec 1;9(4):260-6.