Visual and anatomical outcome of patients treated with subthreshold micropulse (577nm) laser for chronic Central Serous Chorioretinopathy (CSCR)

M Goswami, O Ashano, G Bagionny - Taylor

Dept. of Ophthalmology, Ipswich Hospital (ESNEFT), Ipswich, Suffolk, UK

Correspondence: Mallika.Goswami@esneft.nhs.uk

rco2024.07c0213

NHS East Suffolk and North Essex NHS Foundation Trust

BACKGROUND

CSCR (Central Serous Chorioretinopathy) is a multifactorial disease without a known mechanism of action. It is hypothesised to occur because of choroidal hyperpermeability and secondary RPE dysfunction leading to serous retinal detachment. Subthreshold micropulse laser (SML) uses subthreshold energy that selectively targets RPE cells without inducing chorioretinal damage or scarring and has been suggested as a treatment option.

METHODOLOGY

Retrospective observational study of visual and anatomical outcomes in 12 eyes of 12 patients who received subthreshold 577nm micropulse laser treatment for chronic CSCR

Follow-up intervals

6 months → 12 months → 18 months

Inclusion criteria



CSCR for 6 months



Presence of subretinal fluid secondary to chronic CSCR



No previous treatment



Laser performed by a single doctor

RESULTS

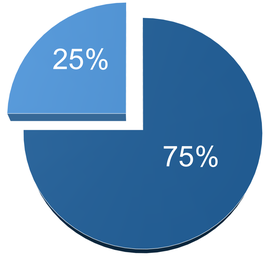
Demographics



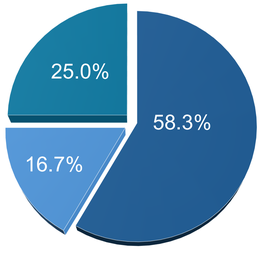
Central retinal thickness

343µ	314µ	280µ	269µ
Mean CRT at **baseline**	Mean CRT at **6 months**	Mean CRT at **12 months**	Mean CRT at **18 months**

Number of Lases Sessions



SRF Resolution



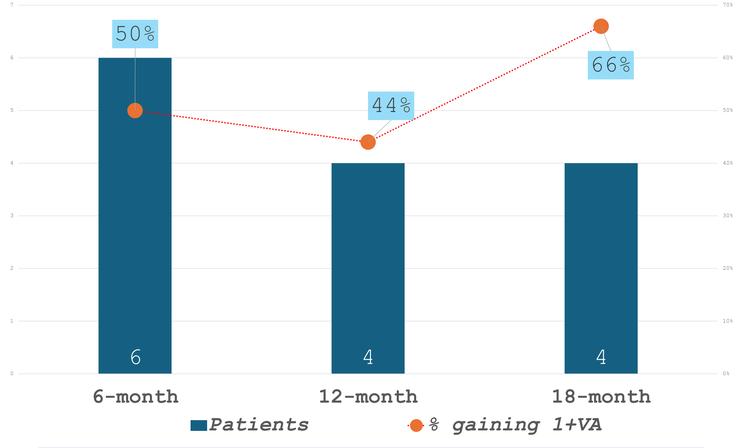
One Session *Two Sessions* *Complete* *Qualified* *Persistent*

9 eyes (75.0%) had one session of laser and 3 (25.0%) received two sessions. 3 eyes received anti-VEGF injections for associated CNV

7 (53.8%) patients had complete resolution of SRF at the last follow-up, 2(16.7%) had qualified resolution of SRF whilst 3(25.0%) had persistent SRF at last follow-up.

No side effects were reported following the treatment.

% of eyes gaining 1+ VA at 6,12,18 months follow-up



6 (50%), 4 (44%) and 4(66%) patients gained at least one line of VA at 6, 12 and 18-months follow-up.

CONCLUSION

Acute CSCR is self-resolving in most cases, but progression to chronic CSCR warrants treatment. Although studies show photodynamic therapy to have better results, our study shows that subthreshold laser can be an considered as an option in the management of chronic CSCR with good visual and anatomical outcome.