

# SYMPOSIUM: PROLIFERATIVE DIABETIC RETINOPATHY

Moderators: Mahmoud Soliman, Khaled El-Rakhawy

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## Alpha - Lipoic acid therapy after panretinal laser coagulation in diabetic patients

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### Purpose:

To investigate whether intravenous alpha – lipoic acid (ALA) (Berlithion, "Berlin-Chemie") therapy might be able to improve functional properties of the retina in patients with diabetic retinopathy after laser coagulation.

### Methods:

Thirty five patients with diabetic retinopathy were investigated in our clinic (22 females, 13 males, 17 IDDM, 18 NIDDM, body mass  $78 \pm 10,5$  kg, age  $59,6 \pm 8,3$  years, diabetes duration  $16,9 \pm 8,1$  years, glucose rate in the blood  $7,8 \pm 3,9$  mmol/l). They were divided into 2 groups: 1st group - 19 patients with laser coagulation and intravenous alpha – lipoic acid injections; 2nd group - 16 patients with laser coagulation only.

### Results:

We evaluated improvement of the acuity of vision, central and pericentral visual field, sensitivity map of the visual fields, static contrast sensitivity and evoked visual potentials after intravenous therapy with 600mg alpha – lipoic acid per day during one week after coagulation. There was no significant improvement of vision acuity after long-term therapy ( $0,09 \pm 0,02$  vs  $0,2 \pm 0,04$ ), which included ALA tablets (300mg alpha – lipoic acid) twice a day during 2 months.

### Conclusion:

ALA therapy resulted in a significant preserving of evoked visual potentials and faster recovering of vision acuity after coagulation. Electrophysiological findings also improved significantly.

### Take-home message:

Intravenous therapy with ALA has a positive influence on the impaired function of the nerve fibers in patients with diabetes mellitus after panretinal laser coagulation.

