

interact with their littermates, nor do they display signs of aggression or fear, and they are sexually inactive. It is important to point out that the highest expression of p73 is in the vomeronasal organ; in the mutants, the accessory olfactory bulb is extremely reduced in size and lacks a glomerular layer, whereas the medial nucleus of the amygdala lacks a molecular layer. The hydrocephalus appears in the first postnatal days and may be attributed to a defect of the ependyma, another p73-positive structure, which leads to an ependymal denudation and loss of cilia in the ventricles. In the adult animals, there is a severe atrophy of deep nuclei, such as amygdala, septum and caudate. We conclude that the p73 protein is particularly important for those brain centres that regulate the social, sexual and intellectual aspects of life

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**P14. ANATOMOPATHOLOGICAL CHANGES BASED ON OPTICAL COHERENCE TOMOGRAPHY (OCT) DURING DIABETIC MACULAR EDEMA TREATMENT WITH DOUBLE FREQUENCY NDYAG LASER**

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**Introduction:** There are many epidemiologic studies of diabetic retinopathy; studies on patients with diabetic macular edema are less frequent, so prevalence and incidence values are usually included within diabetic retinopathy. At present worldwide macular edema prevalence is calculated between 7.5% and 15.2%.

**Material and Methods:** This is a prospective study including 80 eyes of diabetic patients of Ophthalmology with diagnosis of diabetic macular edema clinically significant treated with photocoagulation using double frequency NdYag laser. Including period was 2 years and follow-up 12 months.

**Results:** In 40 eyes with DME-1, 50% show a reduction or resolution of edema at 6 months with 1 or 2 treatment courses and 70% showed this results at 12 months with 1 to 4 treatment courses. In 24 eyes eighth DME-2 79.16% show a reduction or resolution of edema at 6 months with 1 or 2 treatment courses and 100% showed these results at 12 months with 1 to 4 treatment courses. In 16 eyes with DME-3 75% show a reduction or resolution of edema at 6 months with 1 or 2 treatment courses and 100% showed this results at 12 months with 1 to 4 treatment courses.

**Conclusions:** Optical Coherence Tomography (OCT) provides a better evaluation of edema in Diabetic macular edema after laser treatment. The results show that OCT is better than angiography in the diagnosis of this disease.

**References:** Ahmadi, M. Ahmir MD; Lim, Jennifer I. MD, Update on Laser Treatment of Diabetic Macular Edema, International Ophthalmology Clinics, Spring 2009 - Volume 49 - Issue 2 - pp 87-94

**P15. BLOOD BARRIER IN THE OPTIC NERVE OF HYPERGLYCEMIC RATS**

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The aim of this work was to describe the structure of the optic nerve blood-barrier vessels in control and in hyperglycemic animals. For that purpose, optic nerves from 2 months rats after 6 and 12 weeks citrated buffer or streptozotocin intraperitoneal injected were studied by light and transmission electron microscopy. The intraneural vessels were counted, and the endothelial cell and basal lamina were measured. Vascular permeability and expression of major histocompatibility complex (MHC) class II molecules was explored by immunocytochemistry using antibodies against albumin and Ia OX6, respectively in both animal groups. Nerve optic vessels from hyperglycemic rats showed: i. endothelial cell and basal lamina thickening matched with the control group ii. Keeping pericytes, iii increasing of the endothelial cell transcytosis and iv. Increased number of perivascular macrophagic cells in the vascular wall. We could conclude that, the effects of hyperglycemia in the inner vessels of the optic nerve are more similar to those of the cerebral microcirculation than to those of retinal vessels in hyperglycemic animals.

**P16. AGE-RELATED CHANGES IN HUMAN CORNEAL ENDOTHELIAL CELL DENSITY**

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Specular microscopy makes it possible to study the human corneal endothelial cell density in vivo. We carried out a prospective study on 910 eyes of 455 subjects of an age that ranged from 20 to 79 years (mean  $\pm$  SD, 49.52 $\pm$ 15.81). We recorded the mean of three consecutive measurements of the endothelial cell density using the Topcon SP-2000P non-contact specular microscope (Topcon Corp., Tokyo, Japan). The mean endothelial cell density was 2723 $\pm$ 327 cells/mm<sup>2</sup>. Lower corneal endothelial cell density values were found in older subjects (p<0.001). In sum, there is a reduction in corneal endothelial cell density with age.

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