

2007 Research Days Abstract Form – Department of Ophthalmology – UNIFESP/EPM

<p>2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): Review the Scientific section Descriptions. Select and enter the two -letter Code for the one (1) Section best suited to review your abstract (RE)</p>	<p>1. FIRST (PRESENTING) AUTHOR (REQUIRED) Must be author listed first in body of abstract</p> <p>( ) R1 ( ) R2 ( X ) R3 ( ) PG0 ( ) PG1 ( ) Estagiário ( ) Tecnólogo ( ) PIBIC</p> <p>Bottós, Juliana Mantovani Last Name, First Middle</p> <p>Retina and Vitreous 1937/06 Service (sector) Nº CEP</p>
<p>3. PRESENTATION PREFERENCE (REQUIRED) Check one (1) (a) Paper (b) Poster</p>	<p><b>EFFECTS OF ANGIOTENSIN-CONVERTING ENZYME INHIBITOR AND ANGIOTENSIN II RECEPTOR ANTAGONIST IN DIABETIC RABBIT RETINA</b> <i>Juliana Bottós, Tatiana Helfenstein, Sílvia Ihara, Francisco Fonseca, Verônica Lima, Thaiana Orsi, Maurício Maia, Eduardo Rodrigues, Michel Farah</i></p>
<p>4. The signature of the First (Presenting) Author. (REQUIRED) acting as the authorized agent for all authors, hereby certifies. That any research reported was conducted in compliance with the Declaration of Helsinki and the UNIFESP Ethical Committee"</p>	<p><b>Purpose:</b> 1. To verify the effects of the angiotensin converting enzyme inhibitor (ACEI) quinapril and the angiotensin II receptor antagonist (ARA) olmesartan on retina of hypercholesterolemic and diet-induced diabetic rabbits. 2. To present a new animal model for diabetic retinopathy in rabbit eyes. <b>Methods:</b> The study was conducted in compliance with the UNIFESP Ethical Committee. Diabetes and hypercholesterolemia were induced in New Zealand white male rabbits by a diabetogenic and cholesterol-rich diet with high-fat/high-sucrose diet (contained 10% lard and 37% sucrose). Water and chow were given <i>ad libitum</i>. The high-fat/high-sucrose diet feeding was maintained for 6 months. After 12 and 24 week period, the efficacy of the diet in inducing diabetes and hypercholesterolemia was examined by plasma glucose levels, plasma total cholesterol, high-density lipoprotein (HDL) cholesterol and triglyceride. The rabbits were divided into four groups. Groups II, III and IV received the high-fat/high-sucrose diet. Animals belonging to group I (n=10) formed the control group, and group II (n=10) formed the untreated group. Animals from group III (n=10) received the quinapril 30mg/day orally, added to the chow. Animals from group IV (n=10) received the olmesartan 5mg/kg/day orally added to the chow. <b>Clinical Analyses</b> - Fundus photographs and fluorescein angiography were performed at the third and sixth month. The prevalence of microaneurysms in each retina was determined based on standard photographs, with radius equivalent to the diameter of the average optic disc (1500 microns), considering the area within 1500microns of the border of the optic disc. The number of microaneurysms was analyzed and the animals were graduated into 4 levels: I - &lt; 10; II - 11-30; III - 31-40; IV - &gt; 40 microaneurysms. All evaluations were performed in a masked fashion. <b>Biochemical Parameters</b> - All blood samples were obtained after a 12-hour fast. Serum glucose and lipid profile were determined at base line, after 3 and 6 months by standard techniques using an enzymatic assay. <b>Results:</b> All the animals induced by the diabetogenic and cholesterol-rich diet were diabetics at 6 months after induction (glycemia <math>316.3 \pm 127.21</math> mg/dl). No differences between groups II, III and IV were observed regarding glucose levels. The control group (I) had a mean glycemia of <math>104.60 \pm 5.3</math> mg/dl. Clinical study of all diabetic groups (II, III and IV) by 12 weeks revealed the early clinical features of diabetic retinopathy included hyperfluorescent dots consistent with microaneurysms. Group II developed microaneurysms at level IV, while groups III and IV presented microaneurysms at level III. Clinical findings did not change appreciably by 24 weeks and there were no differences among the groups. <b>Conclusion:</b> 1. No significant clinical benefit was observed regarding retinal protection with the use of ACEI or ARA for the treatment of diabetic retinopathy. 2. New Zealand White rabbits fed with high-fat/high-sucrose diet seem to provide a convenient animal model for studying diabetic retinopathy.</p>
<p>Signature of First</p>	
<p>Scientific Section Descriptions (OR) ORBIT (PL) OCULAR PLASTIC SURGERY (RE) RETINA AND VITREOUS (RX) REFRACTION-CONTACT LENSES (NO) NEURO-OPHTHALMOLOGY (TU) TUMORS AND PATHOLOGY (ST) STRABISMUS (UV) UVEITIS (LS) LACRIMAL SYSTEM (LV) LOW VISION (CO) CORNEA / EXTERNAL DISEASE (GL) GLAUCOMA (RS) REFRACTIVE SURGERY (CA) CATARACT (US) OCULAR ULTRASOUND (TR) TRAUMA (LA) LABORATORY (BE) OCULAR BIODESIGNING (EP) EPIDEMIOLOGY (EF) ELECTROPHYSIOLOGY</p>	
<p>Deadline: 29/10/2007</p>	
<p>FORMAT: Abstract should contain: <b>Title, Name of Authors, Name of other authors (maximum 6), Purpose, Methods, Results, Conclusions.</b> Example: ARVO (1.10 x 1.70) Abstract Book</p>	