

Ads by Google

New Stem Cell Treatment
Macular Degeneration treated using Retrobulbar Stem Cell Injections...
www.XCell-Center.com/MacularDege

50 Hotels in Granada
Compare hotels and save up to 75% Save time, book at Booking.com
www.booking.com/HotelsGranada

Vaginismus? Pelvic Pain?
You Are Not Alone! Connect With Women & Read About Treatment Here
www.Vaginismus.com

Ultimate Optical Tables
Buy From Trusted Name In Research Facilities Worldwide. Order Today!
www.KineticSystems.com

Image processing
Solutions for process automation and quality control
www.graphikon.de

Official Site: Femara®
For MDs: Get Information About Femara® (letrozole)
www.femarainfo.com

Optical Turnstile China
Quality-Assured Manufacturer Waist High Turnstile, Optical Turnstile!
www.gsautomatic.com/Turnstile

Cursos Esteve
Dudas en EPOC dirigida al colectivo de médicos de familia
www.esteve.es

Eye Envy
Tear Stain Remover for Dogs and Cats Contains no bleach or peroxide/safe
www.eyeenvy.com

Granada Apartments
Holiday Rentals in Andalucia Best prices, Best locations Granada
www.visitalltheworld.com

ALS is Not Rare
Rapid and Relentless, it will kill someone you know. Stop ALS Now!
www.als.net/StopALS

View Image Analysis Demo
Specialized BIOQUANT image analysis systems for biomedical research.
www.bioquant.com

Free!

Free Magazines



Recent Comments

University neurologists launch multiple sclerosis research study (5)

Don escribió: I'm interested in getting tested with Dr. Zamboni'... [Mas]

Cats have no sweet tooth (2)
Anonymous Cat Owner escribió:

Search

Search

<< Free, confidential HIV testing at Northern California 'Out of the Closet' locations | Prospect Medical Holdings extends exchange offer of its Series B 12¾% Senior Secured Notes, due 2014 >>

UGR scientists provide early diagnosis of eye disorders through optical technique

26. Noviembre 2009 03:29

Researchers from the University of Granada have provided an early diagnosis of certain ocular diseases that are very common today, such as age-related macular degeneration and keratitis, by applying an existing optical technique that, nevertheless, had never before been used for this purpose.

Scientists from the UGR have studied the image quality in subjects affected by one of these two pathologies, finding a greater amount of ocular aberrations and a higher level of scattering (term associated with the dispersion that light suffers when passing through the various ocular media) in affected eyes compared with results in healthy eyes. This significantly affects visual performance.

Optical Table Accessories

Get Laser Port, Tabletop Enclosures & More. Visit For Quality Products!
www.KineticSystems.com

Image processing

Solutions for process automation and quality control
www.graphikon.de

Boletín electrónico

Magazine digital destinado al profesional sanitario
www.esteve.es

Official Site: Femara®

For MDs: Get Information About Femara® (letrozole)
www.femarainfo.com

Anuncios Google

This work has been performed by the researcher **Carolina Herrera Ortiz**, from the Optics Department at the University of Granada, and directed by professors **Jos- Ram-n Jim-nez Cuesta** and **Francisco P-rez Oc-n**.

Age-related macular degeneration (ARMD) is the leading cause of central vision loss in developed countries, and mainly affects people of over 50 years of age. As far as keratitis is concerned, this condition causes inflammation of the cornea and can cause blindness, due to the severe alterations that the corneal surface may suffer.

Optical instruments

To carry out this work, the scientists measured the image quality with two optical instruments and used a psychophysical test for assessing visual performance. Results from patients with ARMD were compared with those obtained from a control group of similar age without any ocular pathology. Thus, the researchers could verify that for individuals affected by this condition there is an increased level of ocular scattering that could be mainly due to the disruption suffered by the light reflected in the damaged retina of the ARMD eyes, because a priori optics are not expected to be altered, since it is a retinal pathology.

On the other hand, optical quality and visual performance have also been studied in patients affected by keratitis. Eyes affected by keratitis present a poorer optical quality and a reduced visual performance that improves significantly after the resolution of the pathology. Nevertheless, once medical treatment ends, eyes that suffered from keratitis still have a worse image quality compared to the contralateral healthy eye, a result that significantly influences visual performance even having reached the normal values of visual acuity.

Visual quality characterization

The results of this research carried out at the UGR will make a full and objective characterization of visual quality in patients affected by any of these ocular pathologies. So far, the use of new techniques for assessing objectively the optic quality of the eye has been limited to studies on refractive or cataract surgery. However, as Carolina Ortiz Herrera suggests, this work "may be of particular interest to establish an early diagnosis of certain ocular diseases such as age-related macular degeneration, the main cause of central vision loss in developed countries."

Furthermore, this technique allows researchers to carry out a monitoring of possible stages of both diseases. Ortiz Herrera stresses the importance of including "both in the clinical practice of optometry and ophthalmology" the use of new techniques that, objectively, could indicate deterioration in vision even when the visual acuity values are normal, since "vision is not only seeing well, but providing quality and comfort."

Source: [University of Granada](http://www.unh.es)

Sea el primero en calificar este post

Posted in: [Medical Condition News](#)

Tags: [Blindness](#), [Cataract](#), [Macular Degeneration](#), [Ophthalmology](#), [Pathology](#)

 **SHARE**    ...

[Permalink](#) | [Comentarios \(0\)](#)

Publicaciones relacionadas

Green tea holds hope for prevention of oral cancer

Green tea extract has shown promise as cancer prevention agent for oral cancer in patients with a pr...

Thrombogenics issues business update and half year results