

## **Clinical Applications of Pentacam Scheimpflug System**

O. Ucakhan-Gunduz

*Ophthalmology, Ankara University Faculty of Medicine, Ankara, Turkey*

Corneal topography is an indispensable part of cornea and refractive surgery practice. Innovations in corneal topography systems have not only enabled these systems to take faster and more reliable measurements, but have also widened the range of their clinical applications to cover the whole anterior segment. Among the new generation systems, Scheimpflug photography (Pentacam CES, Oculus GmbH, Germany) is capable of taking direct height measurements from the cornea as well as the anterior chamber, and therefore can provide reliable anterior and posterior corneal curvature and elevation data, corneal thickness maps, corneal wavefront data, anterior chamber depth and chamber angle data and crystalline lens opacity measurements, which have already been proved to be very helpful in clinical practice. This talk will focus on the clinical uses and interpretation of data obtained from the Pentacam system.

## **Optimizing Strategies for Bevacizumab Injections in ARMD: a Randomized Controlled Trial**

T. Lushchyk<sup>2</sup>, G. Baarsma<sup>1,2</sup>, J. Martinez-Ciriano<sup>1</sup>, L. Van den Born<sup>1</sup>, T. Missotten<sup>1</sup>

<sup>1</sup> *Medical Retina, ARMD, The Rotterdam Eye Hospital,* <sup>2</sup> *Clinical Research Dpt, Medical Retina, R.O.I, Rotterdam, The Netherlands*

**Purpose:** Information on the optimal number of anti-VEGF injections required to control exudative ARMD without reduction of potential beneficial outcome is currently unavailable. This RCT studies the influence of frequency of administration of Bevacizumab injections on functional and anatomical outcomes.

**Setting:** Tertiary centre medical retina department

**Methods:** ongoing prospective randomised controlled study. Patients were allocated to 1 of 3 groups: 4 weekly, 6 weekly or 8 weekly injections with 1.25mg/0.05cc Bevacizumab injections for 1 year.

**Results:** so far 121 of 180 patients were included, 91 reached the 3 months, 53 the 6 months, 35 the 9 months and 3 patients the 12 months time point. At 3 and 6 months, no significant differences in gained letters ( $6.6 \pm 7.9$  letters in the 4 weekly group,  $3.0 \pm 5.8$  in the 6 weekly and  $5.2 \pm 10.0$  in the 8 weekly injection group) were not significant different ( $p=0.18$ ). No significant differences in reduction of OCT minimal foveal thickness could be observed at this point ( $p=0.47$ ); reduction of  $90 \pm 55$   $\mu\text{m}$ ,  $57 \pm 88$   $\mu\text{m}$  and  $57 \pm 77$   $\mu\text{m}$  in the 4, 6 and 8 weekly groups respectively. In 15% of patients visual improvement occurred in the presence of increased minimal foveal thickness measurements.

**Conclusions:** at the 6 months follow-up point, no optimal interval between Bevacizumab injections for ARMD could be observed.