Clinical Cases with Automated Gonioscopy

GS-1 Gonioscope

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Contributing professionals

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Professor of Ophthalmology
Chairman of Clinica Oculistica University of Genova
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AAO Achievement Award, FARVO
President, EU EYE
Chairman, EGS Foundation Board
Medical director, FBOMJ Eye Bank of Genova
Executive Committee Member, Istituto David Chiossone Genova

Assist. Prof. Luis Abegão Pinto, MD, PhD

Ophthalmology Dept, Hospital Santa Maria, Lisbon, Portugal
Prof. Luis Abegão Pinto is the Head of the Glaucoma Clinic of the Department of Ophthalmology of Portugal’s largest Hospital (Hospital Santa Maria) and serves as Assistant Professor of Ophthalmology at the Faculty of Medicine of Lisbon University, Portugal. He has authored or co-authored 50 indexed, peer-reviewed papers in Glaucoma. He is actively engaged in a number of scientific ophthalmological societies, including the European Glaucoma Society (EGS) and European Vision and Eye Research (EVER).

Assoc. Prof. Vikas Chopra, MD

Associate Professor, Ophthalmology
David Geffen School of Medicine at UCLA
Steward and Hildegard Warren Endowed Chair
Doheny Eye Institute
Principal Investigator, Doheny Image Reading Center
Medical Director, UCLA Doheny Eye Centers - Pasadena

60+ Peer-reviewed publications
AAO Achievement Award
Active Member: AAO, AGS, ABO
The Gonioscope was developed to capture the entire 360 degrees of the angle using a unique 16 surface multi-mirrored prism lens. By optimizing the multimirror prism lens, a white LED is projected into the angle, simulating indirect static gonioscopy. Captured images can be stitched together to provide a view of the entire angle to support angle assessment and clinical findings.

Introduction
Clinical evaluation

**Synechia**

*Images courtesy of Prof. C. E. TRAVERSO, MD, Clinica Oculistica, Di.N.O.G.M.I., University of Genova - Ospedale Policlínico S. Martino, Italy*

Comment
Closed angle
Trabecular meshwork is not visible.

**Iris processes**

*Images courtesy of Assist. Prof. Luis Abegão Pinto, MD, PhD, University of Lisbon, Portugal*

Comment
This is different from synechiae.

**Neo-vessels**

Comment
White arrows: same vessel in both pictures
Black arrows: increased neovascularization, indicating progressive disease

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*1 Images courtesy of Prof. C. E. TRAVERSO, MD, Clinica Oculistica, Di.N.O.G.M.I., University of Genova - Ospedale Policlínico S. Martino, Italy

*2 Images courtesy of Assist. Prof. Luis Abegão Pinto, MD, PhD, University of Lisbon, Portugal*
Angular recession

Comment
Cyclodialysis + Iridodialysis with sclera visible through cleft

Angle closure

Comment
Minor gap between the full length synechia

Sea-serpent

Comment
A physiological vessel circling the iris, not to be confused with neovascularization

*1 Images courtesy of Vikas Chopra, MD, Doheny Eye Institute, UCLA, USA
*2 Images courtesy of Assist. Prof. Luis Abegão Pinto, MD, PhD, University of Lisbon, Portugal
Surgical evaluation

Drainage system implantation*¹

Trabeculectomy*²

Post-vitreous surgery*²

Comment
Linear stitching and individual images

Comment
Black arrow: Scleral window
White arrows: Iridectomy beneath the scleral hole

Comment
Silicone oil covering the entire superior angle

*¹ Images courtesy of Prof. C. E. TRAVERSO, MD, Clinica Oculistica, Di.N.O.G.M.I., University of Genova - Ospedale Policlínico S. Martino, Italy

*² Images courtesy of Assist. Prof. Luis Abegão Pinto, MD, PhD, University of Lisbon, Portugal
Synechiae

Iridoplasty

Synechiae

Images courtesy of Prof. C. E. TRAVERSO, MD, Clinica Oculistica, Di.N.O.G.M.I., University of Genova - Ospedale Policlínico S. Martino, Italy
Surgical evaluation

Phakic IOL implantation *1

Comment
White arrow: Haptic of phakic IOL
Black arrows: Epithelial ingrowth covering the angle

MIGS device 1 *2

Comment
Trabecular bypass microstent within Schlemm’s canal

MIGS device 2 *1

Comment
Focusing on the device

*1 Images courtesy of Assist. Prof. Luis Abegão Pinto, MD, PhD, University of Lisbon, Portugal
*2 Images courtesy of Vikas Chopra, MD, Doheny Eye Institute, UCLA, USA
Comment
Blue arrow: MIGS implant
Green arrows: Trabeculectomy ostium
Orange arrow: Pigment deposit inferiorly
Red arrow: Iris torn from the root
Brochure and listed features of the device are intended for non-US practitioners.

More clinical information available online

https://www.nidek-intl.com/education/