

EOS 2018

27 gauge vitrectomy is smaller better?

Omar TRABELSI
K.MGHAYETH, A.BEN SAID, K.BEN AMOR,
S.MAHJOUR, B.BOUASSIDA, A.TRABELSI



Clinique Ophtalmologique de Tunis

Intoduction

- * 20 gauge 1971 (Scleral incision size: 0.9mm)
- * 25 gauge 2002 (0.5mm)
- * 23 gauge 2005 (0.7mm)
- * 27 gauge 2010 (0.4mm)



Instrumentation



- * 27-gauge incisions are 20% smaller than 25-gauge (**better self sealing, less inflammation, less post-op pain**)
- * 27 G vitrectome port is larger than 25G (0.079 mm² vs 0.066 mm²) (**faster core vitrectomy**) and closer to the cutter tip (0.211 mm vs 0.330 mm) (**complex maneuvers, segmentation and delamination**)
- * 27 G shaft length of vitreous cutter is shorter than 25 G (25 mm VS 32 mm) (**comparable stiffness to the 25-gauge vitrectomy system**)

Associated technology

- * The ULTRAVIT® High Speed Vitrectomy Probe operates at an ultrahigh-speed of 7,500cpm (reduces traction that can cause iatrogenic tears and post-operative complications)
- * ULTRAVIT associated to the duty cycle control, facilitates efficient core vitrectomy with full pedal depression and safer peripheral shaving by releasing the foot pedal to allow proportional control of the aspiration for retinal detachment surgery

illustrative cases

1 step trocar placement



Macular hole

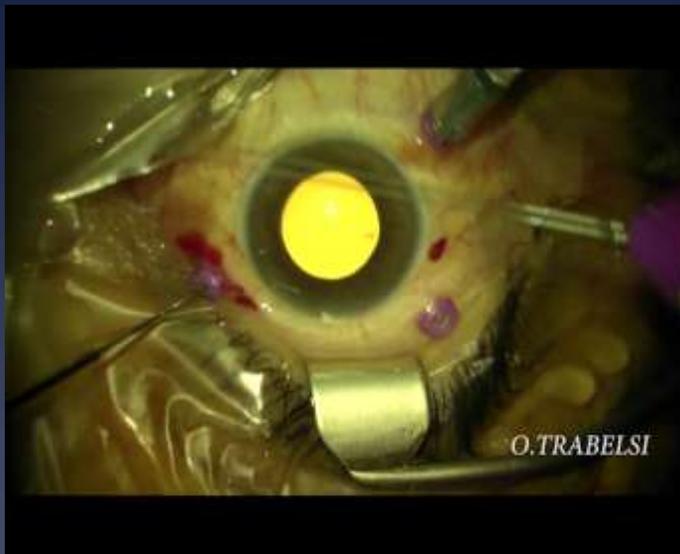


Sub-ILM heamorrhage



Retinal detachment





Diabetic retinopathy



Sum up

- * The combination of ULTRAVIT® High Speed Vitrectomy (7500cpm) and the duty-cycle control system allow **efficient and fast core vitrectomy, safer peripheral shaving**
- * The smaller size of 27-gauge incisions result in **better self sealing, less inflammation, less post-op pain, less risk of infection**
- * A larger port and closer to the cutter tip allow **faster core vitrectomy and easier complex maneuvers performance**
- * Shorter shaft length of vitreous cutter gives a **comparable stiffness to the 25-gauge vitrectomy system**
- * Silicon oil tamponade is still not possible (combine 25G)
- * Difficulty with myopic patients

Take home message

- * Despite of the fact that Silicon oil tamponade is still not possible
- * It is becoming evident, that more procedures can be performed safely and efficiently using 27-gauge vitrectomy techniques
- * These latest advances in technology have transformed our capabilities and improved our methods in vitreoretinal surgery

WOC 2018 **SCIENTIFIC PROGRAM**
INVITED COORDINATORS & SUBSPECIALTY LIAISONS

Retina

 Fernando Arevalo United States	 Markus Beysen Hong Kong	 Marta Figueroa Spain	 Moi Ching Lam Canada	 Ursula Schmidt Austria	 Omar Traboulsi Lebanon
--	---	--	--	--	--

JOIN US! BARCELONA, SPAIN
JULY 18-19, 2018
WWW.WOCPH.ORG/WOC2018

INTERNATIONAL COUNCIL OF OPHTHALMOLOGY
WOC 2018
WORLD OPHTHALMOLOGY CONGRESS

ATTEND: Academics, students, residents and general ophthalmologists	PARTICIPATE: As a speaker, exhibitor, workshop or satellite lecturer or chair	NETWORK: With more than 10,000 ophthalmologists from more than 100 countries	EXHIBIT: More than 100 exhibiting companies
---	---	--	--



**THANK YOU FOR YOUR
ATTENTION**

