



3 de Dezembro 14h30 | 16h00 – Sala 3

Moderadores | Chairs: Angelina Meireles (CHUPorto), Mário Ornelas (H. Setúbal), Carla Teixeira (HPH), Mário Alfaiate (CHUC), António Sampaio (IMO), Belmira Beltrán(HVFX)

## VD 1

## **TODAY'S SPECIAL: SUBRETINAL NOODLES**

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**Purpose:** To describe a less invasive technique of subretinal membrane (SRM) removal through a single retinotomy in combined cataract surgery and vitrectomy for rhegmatogenous retinal detachment (RRD) with proliferative vitreoretinopathy (PVR).

Methods: Combined cataract surgery and pars plana vitrectomy were performed. After adequate pupil dilation obtained with a cohesive viscosurgical device and iris retractors, phacoemulsification was accomplished using an ultrasonic OZIL® tip (CONSTELLATION®, Alcon) and a foldable acrylic intraocular lens was then inserted. Pars plana vitrectomy was performed with a 23-gauge incision. Internal limiting membrane (ILM) peeling under perfluorocarbon liquid was completed after Double Dyne® staining. A SRM extending circumferentially for 2 quadrants was then removed through an inferior retinotomy using a bimanual technique under chandelier endoillumination. It consisted in grasping the SRM with Grieshaber Maxgrip® forceps and then carefully swiveling the forceps with both hands to wrap the SRM around it. After removal of the SRM, immediate release of the retinal traction was noticed. Two additional retinotomies were performed to remove smaller SRM localized in the other quadrants via tangential pulling using Grieshaber Maxgrip® forceps. Next, endodrainage of subretinal fluid, followed by fluidair exchange and endolaser retinopexy were performed. The surgery was concluded with a silicone oil tamponade.

**Results:** A fifty-five year old myopic male patient presented with one-year history of decreased visual acuity in his right eye. Best-corrected visual acuity (BCVA) was hand motion. Ophthalmologic examination revealed a dense cataract and posterior synechiae which prevented fundus visualization. Ocular ultrasonography showed a total retinal detachment. The patient was proposed to undergo combined cataract surgery with synechiolysis and pars plana vitrectomy. After synechiae lysis and cataract extraction, a total retinal detachment with stage C PVR and extensive SRM was observed. The surgery was uneventful. One month postoperatively, both anatomical and functional improvement were accomplished, with retinal reattachment and a BCVA of 20/200. Removal of silicone oil is planned for postoperative month 3.

Conclusions: Proliferative vitreoretinopathy is the leading cause of unsuccessful RRD surgery. Subretinal membranes have been associated with long-standing RRD, compromising the success of RRD surgery by preventing retinal flattening even after meticulous removal of all pre-retinal membranes. Subretinal membranes removal often requires multiple retinotomies and/or retinectomies. This increases the risk of retinal hemorrhages, re-detachment and significant visual field defects, especially when dense and extensive SRM are present. In this video we present a less invasive approach for the removal of extensive SRM through a single retinotomy by wrapping the membrane around the forceps manipulated bimanually. This avoids enlarging the retinotomy and the need for additional retinotomies.