

## Abstract 412

### INJECT OR NOT TO INJECT PRIOR TO SURGERY FOR ACTIVE STAGE 4 ROP

Al--Feky M.\*

*Ain Shams University, Watany Eye Hospitals ~ Cairo ~ Egypt*

#### **Introduction:**

Surgery for active stage 4 ROP is one of the surgical challenges in ophthalmology. It is assumed that intra-vitreous injection of anti-VEGF helps decrease disease activity and allows better surgical outcomes. Concerns about crunch phenomenon following injection are still there.

#### **Materials and methods:**

20 eyes with active stage 4 ROP cases who underwent lens sparing pars plana vitrectomy are collected retrospectively. 11 eyes received intravitreal injection prior to surgery, 9 eyes did not. 2 of them received intravitreal injection at the end of the surgery. Preoperative picture, effect of intravitreal injection, intraoperative activity and postoperative course are evaluated.

#### **Results:**

All surgeries went uneventful. All the 9 non-injected eyes improved post-operatively except 4 eyes of 2 patients which had exudative retinal detachment 2 weeks post-operatively and which regressed spontaneously thereafter in 2 eyes and with posterior subtenant steroids in the other 2 eyes. The 11 injected eyes had one of 3 patterns. The first favorable pattern is regression of disease activity allowing better dissection on table with good final anatomical outcome. The second is acute crunch phenomenon necessitating urgent surgical intervention and making surgery more difficult. 2 eyes of one patient again developed exudative retinal detachment which regressed with posterior subtenant steroids. The last pattern is when a persistent fetal vasculature band was there, in those cases the vascular element within the band took a months to regress.

#### **Conclusions:**

Active stage 4 ROP cases have different regarding disease activity, presence of crunch phenomenon, proximity of the ridge to the lens and presence of a persistent fetal vasculature band. An algorithm on whether or not to inject is shown at the end of the presentation.