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European Society
of Ophthalmology
(SOE)



AMERICAN ACADEMY
OF OPHTHALMOLOGY
The Eye M.D. Association
(AAO)

4-7 June 2011

Geneva
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Abstract Book



The Joint Congress of SOE/AAO 2011

4-7 June, 2011, Geneva, Switzerland

Abstracts

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EP-RET-624

Adverse rate of adverse reactions to intravenous fluorescein angiography in a paediatric population

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Purpose: The objective of this study is to report the incidence of adverse effects to intravenous fluorescein angiography (IVFA) in a paediatric population in an out-patient, clinical setting.

Methods: A retrospective chart review of all adverse reactions to IVFA performed at the Toronto Hospital for Sick Children between January 2002 and May 2009 was carried out. A total of 373 fluorescein angiograms were included in the study.

Results: Patients 18 years and younger were seen in an out-patient setting for a variety of ocular conditions and all reactions to IVFA using 10% fluorescein were documented. 75 adverse reactions were documented (20.1%), most of which were mild (97.3%). Nausea and/or vomiting were the most common reactions (72.0%). There were no severe reactions or mortalities.

Conclusions: Our study is the largest review to date of paediatric patients that have undergone IVFA. Paediatric populations may experience a higher overall adverse reaction rate as compared to reported adult rates, ranging from 1.1% to 5.17%. Although this study reports a higher rate of adverse reactions, the findings are still consistent with nausea and/or vomiting being the most commonly experienced reaction in both adult and paediatric populations.

EP-RET-625

Learning curve of transconjunctival self sealing 20g vitrectomy

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Purpose: To report surgical learning curve of technique and outcome of sutureless 20G vitrectomy.

Methods: Interventional study of surgical management in vitrectomy. Sclerotomy done after heavy conjunctival diathermy, with long beveled tunnel. No additional surgical instruments used.

Results: There were 32 patients (35 eyes) with age 34-82 years. Self sealing achieved in 32 eyes. Three cases with non-self sealing port due to repeated insertion of surgical instruments in PDR, 1 port in each failed cases. Fluid tamponade used in 7 eyes, air tamponade in 8 eyes, SF6 20% in 18 eyes and 2 cases with silicone oil. No sign of hypotony seen after surgery on operating table and postoperatively. One week after surgery, conjunctiva wound healing appears without significant inflammation. Follow-up varies 4-8 weeks. Surgical time and keratometry reading recorded.

Conclusions: Short learning curve achieved without any additional instrument with self sealing 20g vitrectomy.

EP-RET-626

Early results of a RCT comparing micropulse 577nm yellow laser and conventional 532nm green laser for diabetic macular oedema (YELL-1 Study)

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Purpose: To compare micropulse yellow 577nm laser (MYL) with conventional green 532 nm laser (CGL) as a treatment for clinically significant macular oedema (CSMO).

Methods: Randomised controlled double-blind trial. Eyes with CSMO due to diabetes mellitus were randomised to receive either MYL (Quantel Supra) at 15% Duty Cycle 0.3s duration, or CGL (Zeiss Visulas) according to ETDRS guidelines. Main outcome measures were best-corrected visual acuity (BCVA), central subfoveal thickness (CST), macular volume (MV) and average macular thickness (AMT) based on optical coherence tomography (OCT).

Results: To date, 45 eyes of 34 patients with CSMO were randomly assigned to MYL (n=22) or CGL (n=23). All eyes completed 6 months follow up. Mean improvement in BCVA for the MYL and CGL groups were 7.5 and 4.6 letters respectively (p=0.95). Mean improvement in CST was 33.73 µm in the MYL group compared with 7.82 µm in the CGL group. This was statistically significant with p=0.0473. There was a decrease in MV of 0.24mm³ in the both the CGL and MYL group (p=0.99). Mean AMT decreased by 6.27µm and 4.41µm in the CGL and MYL group respectively (p=0.75). There were no laser scars seen in the MYL group compared to the CGL group.

Conclusions: MYL appears to be as effective as CGL in the treatment of diabetic macular oedema in the short term. At 6 months follow-up, reduction in central subfoveal thickness in the MYL group compared to the CGL group was statistically significant. The main advantage of MYL appears to be the lack of laser scars seen after treatment.

EP-RET-627

12-Month efficacy and safety evaluation of dexamethasone intravitreal implant in patients with macular edema due to central retinal vein occlusion

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Purpose: To evaluate the efficacy and safety of dexamethasone intravitreal implant (DEX implant, Ozurdex®) in patients with macular edema (ME) due to central retinal vein occlusion (CRVO).

Methods: Two identical, masked, sham-controlled trials evaluated patients with ME due to CRVO or branched RVO. Of the CRVO patients, 136 received DEX implant 0.7 mg and 147 received a sham procedure. At day 180, patients received open-label treatment with DEX implant 0.7 mg if best-corrected visual acuity (BCVA) was <84 letters or retinal

Learning Curve of Sutureless Transconjunctival 20 Gauge Vitrectomy

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Background : To report learning curve of sutureless transconjunctival vitrectomy.

Methods : The study design was descriptive study. A 20G MVR blade was introduced beveled, slowly, parallel with the limbus, creating conjunctivo-scleral tunnel incision as long as possible. Unnecessary exchange of the instrument through the tunnels was avoided. At the end of the operation intraocular pressure was normalized. Automated-keratometry was done pre-operatively (K1) and day 7 postoperatively (K2). Intraocular pressure was measured preoperatively; day 1, day 3 postoperatively. Surgical time was count in the beginning of surgery (T1); and after the whole intraocular procedure was done, remain closing the wound (T2). Sum of T1 and T2 was Total Time (T3). Healed inflammation was evaluated at 3 weeks. All patents grouping in 3 groups consisted of 10, 10 and 12 patients.

Results : Of 32 consecutive patients underwent vitrectomy with the technique, the surgeon observed no difficulties for maneuverings while doing vitrectomy as with conventional 20G vitrectomy. Comparing induced astigmatism, there was no significant difference between early learning curve (group 1 consist of 10 patient) with other groups. The similar was seen when comparing time to make sclerotomy (T1) and closing sclerotomy (sutureless [T2]). The only significant difference was total time (sum of T1 + T2) between group 1 with group 2, 0.97 minutes. It was shown that clinically, the true learning curve were the first three patient as seen in group 1, and the rest cases need almost similar Total Time.

Conclusion : Transconjunctival sutureless 20G needs short learning curve.

Short title : Sutureless Transconjunctival 20GVitrectomy

Proprietary Interest: None

Financial Support : None

Key Words: sutureless, vitrectomy, 20G, learning curve

Introduction

Since Machemer invented a closed intraocular microsurgery on 1971[1], the practice of PPV using 20-gauge vitrectomy instruments through the sclera, following reflection of the conjunctiva, was become the standard for decades. However, there are numbers of problems with 20-gauge vitrectomy were identified, including iatrogenic retinal breaks, particularly those associated with the sclerotomies and long duration surgery. Therefore, the development of transconjunctiva sutureless (TCS) vitrectomy was developed toward several advantages such as less postoperative inflammation and less operative corneal change.[2-4]

Fujii et al introduced 25-gauge TCS vitrectomy, which allowed smaller sclerotomies that were thought to reduce surgically induced trauma.[5-6] Eckardt then developed the 23-gauge TCS vitrectomy to combine the minimally invasive TCS with the benefits of sturdier, larger instruments for more complex maneuvers.[7] Moreover, recently developed 27-Gauge TCS by Oshima[8] promised more safety from wound leakage and endophthalmitis. Despite the advantages, these small gauge instruments have many disadvantages include increased flexibility of smaller instruments, breaking of fragile instruments, small vitrector port size, and the initial learning curve in wound construction. These inventions also involved cost in purchasing these new hand pieces on 23-gauge, 25-gauge and 27-gauge, since these methods require additional specially designed intraocular instruments other than standard 20-gauge

A 20-gauge transconjunctival technique using standard instrumentation without wound sutures has recently been introduced with promising results.[9-10] This technique has advantages of small port TCS system without the needed of new instrumentation other than the 20-gauge standard. This technique also has other 20-gauge advantages including efficient surgery time and the instrument rigidity. However, using 20-gauge system required learning curve since this technique has different approach comparing with ordinary 23 or 25 gauge that commercially available.

In this study, we report our experience from the use of 20-gauge TCS in order to assess the efficiency and reliability of this surgical technique including the transition from the conventional to the sutureless system.

Methods

The study was done at the Department of Ophthalmology, Christian University of Indonesia/Cikini Church Hospital, Jakarta, Indonesia. Informed consent was obtained from the study participants, and conducted following the tenets of the Declaration of Helsinki. The Christian University of Indonesia Institutional Review Board granted approval for this study. The study design was descriptive study. The inclusion criteria were vitrectomized patients with transconjunctival sutureless 20G technique. Patients with opened and sutured conjunctiva (patient with encircling band, etc) were excluded

from the study. Sutureless transconjunctival 20 g vitrectomy was performed in all patients; intra and postoperative complications were documented.

Surgical Technique

Surgical technique was described in details by Gotzaridis.[10] The technique begins with heavy diathermy of the conjunctiva using a 'short neck' wide tip diathermy probe over the areas of the side ports. The diathermy of the conjunctiva was broad and intense as to prevent leakage of intra ocular fluid into subconjunctiva. The probe presses and stretches the conjunctiva over the sclera. The conjunctiva becomes thin or very thin and some times creates an opening with gradually thinning rim that is sealed with the underlying sclera. The visible end point of the conjunctival burn is a white circle the size of which must be large enough (4-5 mm diameter).

A 20G MVR blade was introduced beveled, slowly, parallel with the limbus, creating conjunctivo-scleral tunnel incision as long as possible. The blade then directed vertically toward optic nerve as the surgeon felt no resistance, to create a better wound sealing at the end of the operation. A 6 mm cannula was used in this port without a suture. Superotemporal and superonasal conjunctivo-sclerostomies were then made with similar technique. Since our chandelier light pipe (DORC[®]) was easier to penetrate through the port, it was introduced first through cutter port, just to open the wound, to facilitate introducing the cutter intra ocular.

Unnecessary exchange of the instrument through the sclera tunnels was avoided, to prevent enlargement of the ports and unnecessary wound leakage. The vitrectomy procedures were performed for all spectrums of retinal cases. All vitreous tamponades were used as per indication. At the end of the operation intraocular pressure was normalized by tamponade injection if low or aspiration if too high. Immediate massage with a cotton tip over the port will allow sealing of the wound. To ensure no leakage, especially in air/gas filled eye, fluid was drop on the wound to check the air bubble. In cases where hypotony were noticed additional SF6 20% gas or fluid were injected through pars plana with a 26 gauge needle followed by oral pressure reducer medication postoperatively.

Whenever the surgeon was not sure with for the sealing of the port, the wound was sutured with 8-0 Vicryl. Subconjunctival injections of antibiotics and corticosteroids were used at the end of the procedure.

Automated-keratometry (Tomey[®]) was done pre-operatively (K1) and day 7 postoperatively (K2). Intraocular pressure was measured preoperatively; and day 1, day 3 postoperatively. Surgical time was counted after the placement of the speculum and the grasping of the conjunctiva in the beginning of surgery (T1); and while closing the wound (T2), after the whole intraocular procedure was performed. Sum of T1 and T2 was Total Time (T3). Healing/ inflammation were evaluated at 3 weeks postoperatively. Patients were followed up for at least 6 months. All subjects divided in 3 groups (10 or more subjects per group) in order to see any difference between learning curve. SPSS version 13.0 (SPSS, Inc., Chicago, IL) was used for all statistical analysis, and $P < 0.05$ was considered significant.

Results

The study consisted of 32 eyes from 32 consecutive patients who underwent pars plana vitrectomy performed by single surgeon (GWSS). Surgery was performed under local anesthesia with 2 ml lidocaine 2% and 3 ml bupivacaine. Conjunctival diathermy performed until the conjunctiva appears attached on the sclera below. The attached conjunctiva seen as marked white area and subtle blood vessel seen. In case of thick Tenon seen, it required longer time to diathermy until conjunctiva attached on sclera. Conjunctivo-scleral tunnel was done simply by puncturing at the diathermized conjunctiva, making tunnel as long as possible, directed parallel with the limbus. Some patient had thinner sclera than others and sclera tunnel was performed easier. Since the direction was parallel with the limbus, forcing too much could possibly cause double penetration; therefore insertion was performed slowly and the blade was directed toward optic nerve once we believed that the blade was intraocular.

The surgeon observed no difficulties while performing vitrectomy and all surgical maneuvers were similarly done as with conventional 20G vitrectomy. There was no need for additional instruments during the transition to the sutureless technique and/or during vitrectomy procedures. There was an only small difficulty while introducing the instruments initially through the tunnels.

Of the 32 consecutive patients who underwent vitrectomy with the described technique, the duration of surgery was measured with video recording for the first 2 cases, and the rest measured while surgery. The study started since the third case using the technique and the first recorded two cases was included to avoid bias of learning curve. Distribution between sexes was equal between male and female. The procedure was done to all spectrums of retinal surgical surgery. Demographics of the patients is shown in Table 1.

As far as the induced astigmatism is concerned, there was no significant difference between early learning curve (group 1 consisted of 10 patient) with other groups. Similarly there was no difference when comparing the time to make sclerotomy (T1) and closing sclerotomy (sutureless [T2]). The only significant difference was total time (sum of T1 + T2) between group 1 with group 2, 0.97 minutes [Table 2], and there was no difference between group 2 and 3. It was shown that clinically, the true learning curve were the first three patient as seen in group 1, and the rest cases need almost similar Total Time [Figure 1] [Figure 2].

There were 3 cases where the scleral port had to be sutured; 1 port in each case, 3 of 32 cases (9.3 %) or 3 of 96 ports (2.9 %). The first 2 sutured ports (case # 6 and 10) occurred during the early cases (group 1) and the last (case # 25) occurred probably due to the frequent in- out instrument while doing membrane peeling which induce irregular lips of sclerotomy.

There was one case with ballooning conjunctiva during vitrectomy, which obscured the port. In that case conjunctiva was then incised and drained but at the end of surgery, the port was self sealing. The intraocular pressure of the eyes at the end of the operation

was either normal or slightly low. No choroidal detachment, hypotony, hypotonic maculopathy, endophthalmitis, or other complications were observed during the postoperative period caused by hypotony or by wound leakage from the scleral port. There was no compromised illumination, and cutting was convenient as in conventional 20g vitrectomy.

Discussion

The recent years sutureless vitrectomy is becoming more and more popular to vitreoretinal surgeons. The advantages of sutureless surgery include minimization of ocular trauma and suture-induced astigmatism as well as the fact that postoperative inflammation is less in the operated eyes. However, small gauge sutureless vitrectomy systems may sometimes not be suitable, especially for complex cases. Disadvantages of 23 and 25g vitrectomy is the prolonged surgical time as well as the increased flexibility of smaller instruments that may be a disadvantage in more demanding cases.[9-11] Additionally, slow vitreous removal and dim illumination are problems with 25 or 23 gauge technology at present, addressed by new vitrectomy machine, but with high cost. Small gauge vitrectomy may require new modified instruments not always available. Therefore, using 20 G sutureless system may be an interesting alternative, combining the advantages of sutureless vitrectomy on the one hand and on the other, the advantages of 20g instruments such as reducing the surgical time and the need for new and more expensive instruments.

The transition from conventional 20g to 20g sutureless vitrectomy includes a learning curve to achieve maximum efficiency. However, in our results, the curve was short enough for the adaptable surgeon. Despite the significant difference between early learning curve to the next group, but clinically time difference 0.97 minute of group 1 and two means less for the whole surgery time of vitrectomy [Table 2]. The only difference of the sutureless technique comparing to vitrectomy with conventional port, is while structuring and closing the sclerotomy. The vitrectomy procedure is similar without need for a technique modification or transition time for the surgeon. There is also no compromise in the intraoperative illumination, and cutting is faster, in comparison to smaller gauge vitrectomy in the technique with similar machine's feature.

For the surgeon, accustomed to performing 20-gauge vitrectomy, the transition is easy. Rigidity of instrument, flow and aspiration of the vitreous cutter is comfortable. The construction of the incision must be meticulous using tunnel or angled incision to reduce postoperative hypotony.

Wound architecture is the most important aspect of this surgery, and the hardest thing for the surgeon to learn, which may cause hypotony and potentially increased endophthalmitis rate and hypotonic maculopathy. However, the learning curve is short enough for the adaptable surgeon. In conclusion, the 20-gauge transconjunctival vitrectomy through a single-step entry cannula system is a relatively safe procedure,

allowing the use of stiff 20-gauge instruments that is particularly valuable in procedures requiring more tissue dissection and manipulation. Also, it offers an economic advantage for allowing surgeons to use some existing 20-gauge instrumentation. When suturing was required, a single transconjunctival absorbable stitch postoperatively was adequate. Our initial experience shows that, although approximately one third of sclerotomies were sutured, this system offers another option to vitreoretinal surgeons interested in a transconjunctival approach to vitrectomy. Further studies are required to confirm our findings and to investigate the differences between trocar and trocarless vitrectomy something that was not addressed in our study.

Figure 1. Time required to make sclerotomy.

Legend : — Sclerotomy_Time_1
 - - - - - Sclerotomy_Time_2
 - - - Sclerotomy_Time_3

Figure 2. Total surgical time in each group of learning curve.

References

1. Machemer, R., Buettner, H., Norton, E.W. & Parel, J.M. Vitrectomy: a pars plana approach. *Trans Am Acad Ophthalmol Otolaryngol* 1971;**75**: 813-20.
2. Kadosono K, Yamakawa T, Uchio E, Yanagi Y, Tamaki Y, Araie M et al. Comparison of visual function after epiretinal membrane removal by 20-gauge and 25-gauge vitrectomy. *Am J Ophthalmol* 2006; **142**:513-515.
3. Yanyali A, Celik E, Horozoglu F, Oner S, Nohutcu AF. 25-gauge transconjunctival sutureless pars plana vitrectomy. *Eur J Ophthalmol* 2006;**16**: 141-147.
4. Yanyali A, Celik E, Horozoglu F, Nohutcu AF. Corneal topographic changes after transconjunctival (25-gauge) sutureless vitrectomy. *Am J Ophthalmol* 2005;**140**: 939-941.
5. Fujii GY, De Juan E Jr, Humayun MS, Pieramici DJ, Chang TS, Awh C, Ng E, Barnes A, Wu SL, Somerville DN. A new 25-gauge instrument system for transconjunctival sutureless vitrectomy surgery. *Ophthalmology* 2002;**109**: 1807-12; discussion 1813
6. Fujii GY, De Juan E Jr, Humayun MS, Chang TS, Pieramici DJ, Barnes A, Kent D. Initial experience using the transconjunctival sutureless vitrectomy system for vitreoretinal surgery. *Ophthalmology* 2002;**109**: 1814-20.
7. Eckardt, C. Transconjunctival sutureless 23-gauge vitrectomy. *Retina* 2005;**25**: 208-11.
8. Oshima, Y., Wakabayashi, T., Sato, T., Ohji, M. & Tano, Y. A 27-gauge instrument system for transconjunctival sutureless microincision vitrectomy surgery. *Ophthalmology* 2010;**117**: 93-102 e2.
9. Lee, J.E., Kim, K.H., Kim, I.K., Jea, S.Y. & Kim, W.S. Comparison of 20-gauge transconjunctival sutureless vitrectomy with conventional vitrectomy. *Retina* 2010;**30**: 1496-504.

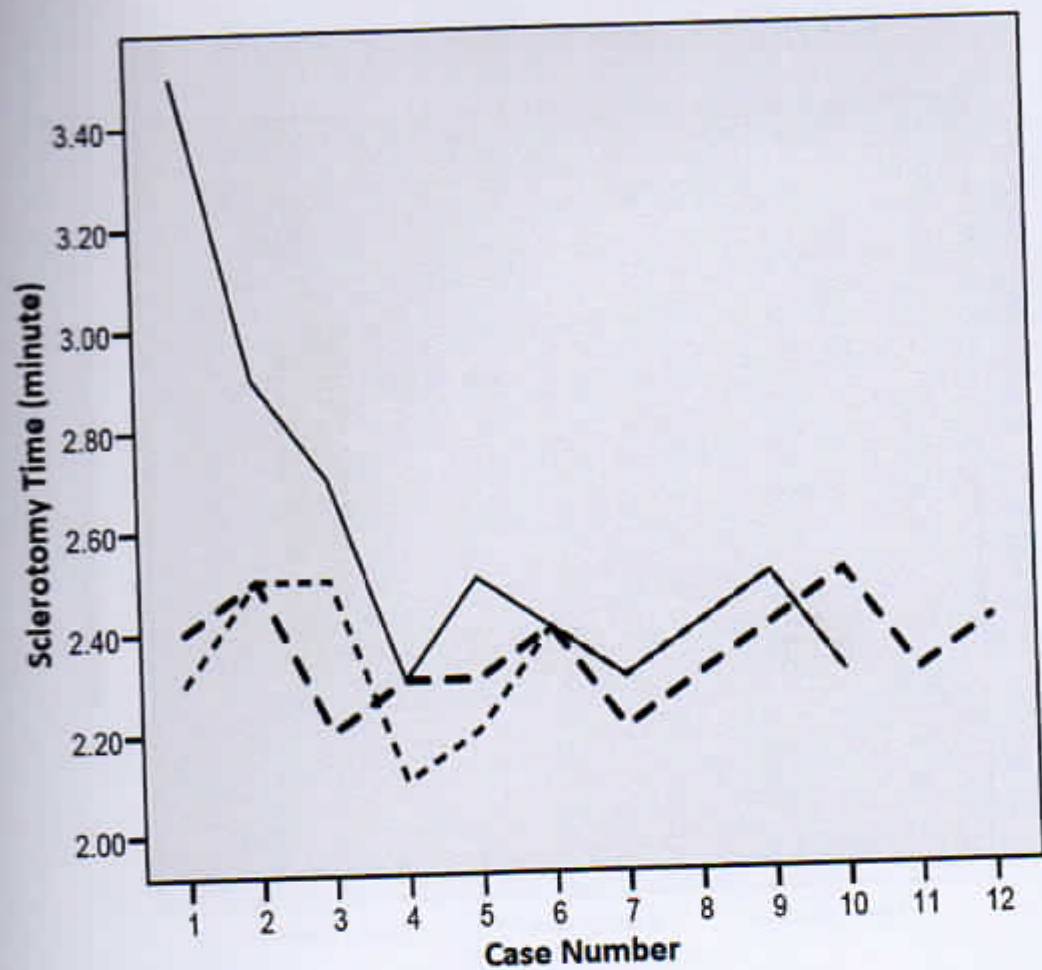
10. Gotzaridis, E.V. Sutureless Transconjunctival 20 Gauge pars plana Vitrectomy. *Semin. Ophthalmol.* 2007; **22**: 179-83.
11. Kim, J.E., Shah, S.N., Choi, D.L., Han, D.P. & Connor, T.B. Transconjunctival 20-gauge pars plana vitrectomy using a single entry cannulated sutureless system. *Retina* 2009; **29**:1294-8.

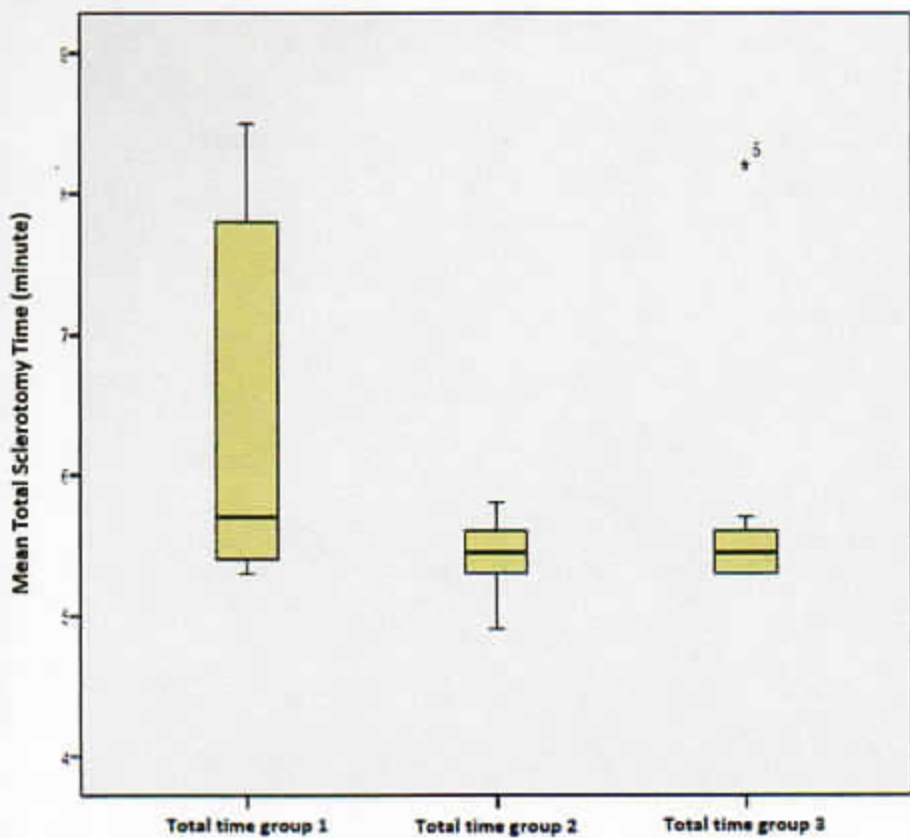
Table 1. Demography of the patient (n=32).

| | | | |
|------------------|-------------------|-------------|-----------|
| Sex | Male | 15 (46.9 %) | |
| | Female | 17 (53.1 %) | |
| | | | |
| Age (years) | | 54,69 | (28 – 72) |
| | | | |
| Diagnose | PDR/VH/TRD | 10 (32 %) | |
| | Rhegmatogenous RD | 7 (22.4 %) | |
| | Vein occlusion | 4 (12.8%) | |
| | Macular hole | 3 (9.6 %) | |
| | Macular Pucker | 3 (9.6 %) | |
| | Others | 5 (16 %) | |
| | | | |
| Systemic disease | DM | 12 (38.2 %) | |
| | Hypertension | 7 (22.4 %) | |

Table 2. Induced astigmatism and surgical time of consecutive surgery.

| Variable | Group | Mean \pm SD | P value | CI |
|------------------------------|----------|-----------------|---------|--------------|
| Induced astigmatism | 1 (n=10) | 0.44 \pm 0.39 | | |
| | 2 (n=10) | 0.34 \pm 0.18 | 0.45 | -0.18 – 0.39 |
| | 3 (n=12) | 0.41 \pm 0.29 | 0.52 | -0.29 – 0.15 |
| | | | | |
| Sclerotomy Time (T1) | 1 (n=10) | 2.58 \pm 0.38 | | |
| | 2 (n=10) | 2.35 \pm 0.14 | 0.08 | -0.04 – 0.50 |
| | 3 (n=12) | 2.35 \pm 0.10 | 1.00 | -0.10 – 0.10 |
| | | | | |
| Closing Sclerotomy Time (T2) | 1 (n=10) | 3.81 \pm 1.26 | | |
| | 2 (n=10) | 3.07 \pm 0.17 | 0.08 | -0.13 – 1.61 |
| | 3 (n=12) | 3.31 \pm 0.83 | 0.37 | -0.81 – 0.31 |
| | | | | |
| Total Time (T3) | 1 (n=10) | 6.39 \pm 1.28 | | |
| | 2 (n=10) | 5.42 \pm 0.25 | 0.04 | 0.04 – 1.90 |
| | 3 (n=12) | 5.67 \pm 0.81 | 0.37 | -0.80 – 0.31 |







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**AMERICAN ACADEMY
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CERTIFICATE OF ATTENDANCE

This is to certify that

has attended the Joint Congress of the European Society of Ophthalmology
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