

Final Program

July 9-11, 2014

**Bangkok Convention Centre  
at Central World  
Thailand**

# AOS

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FIRST  
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ASEAN OPHTHALMOLOGY SOCIETY

**Ten Countries, One Society, One Vision**

Hosted by



The Royal College of  
Ophthalmologists of Thailand

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ASEAN OPHTHALMOLOGY SOCIETY

February 19-21, 2014 / Bangkok, Thailand

## 1<sup>st</sup> AOS Congress Newsletter

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Metta Eye Center,  
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Dr. Ruben Lim  
Bon Siong  
St. Luke's International  
Eye Institute, Philippines



July 10, 2014: 10.30-12.00

FP4-4-L7: Sir Harold Ridley, Who cures  
Aphakia

Chairman: Puwat Charukamnoetkanok

Sir Harold Ridley, who cures Aphakia- *Pornchai Simaraj*  
(Thailand)

Lotus 7

FP4

Free Paper Public Health

Chairman: Watanee Jenchitr

Co-chairman: Farida Sirlan

Judge: Apirak Chalwiratana

FP4-01: High prevalence of myopia among first year-medical  
students of Faculty of Medicine Universitas Gadjah Mada,  
Yogyakarta, Indonesia – *Agung Nugroho (Indonesia)*

FP4-02: Diabetic retinopathy screening in Brunei Darussalam-  
*Nadir Ali (Brunei Darussalam)*

FP4-03: Visual acuity improvement and cost saving of  
vitrectomy between local anesthesia and general anesthesia-  
*Gilbert WS Simanjuntak (Indonesia)*

FP4-05: Validation study to prevalence of blind resulted from  
NHBR 2013- *Farida Sirlan (Indonesia)*

FP4-06: A retrospective review on the causes of blindness and  
visual impairment among children who were enrolled in a school  
for the blind in Manila Philippines from 1999 to 2012-  
*Carlos Chua (Philippines)*

FP4-07: Prevalence of glaucoma and diabetic retinopathy in the  
elderly Javanese Indonesian population: The Yogyakarta eye  
study- *Suhardjo Ranu (Indonesia)*

Lotus 12

10.00-10.30: Coffee Break and E-Poster Presentation

Convention B

July 11, 2014: 08.30-10.00

SYM 8-L5: Oculoplastic

Lotus 5-6

FP6

Lotus 12

Instruction Course II : Diagnosis and Management of  
Lacrimal Diseases

Chairman: Sunisa Sintuwong

Co-chairman: Thanyapat Benjhawaleemas

How to diagnose the tearing patient and office procedures for  
tearing patients- *Kyung In Woo (Korea)*

Pearls for endoscopic lacrimal surgery- *Bobby S Korn (US)*

The Jet door flap- *Nattawut Wanumkarng(Thailand)*

The failed DCR: What next - *Don O Kikkawa (US)*

Retina Free Paper

Chairman: Sherman Valero

Co-chairman: Young Shao Onn

Judge: Mansing Ratanasukon

FP6-01: Foveal sensitivity after half-dosage Visudyne with  
photodynamic therapy in Central Serous Chorioretinopathy  
(CSCR)- *Prapapan Pitujaturont (Thailand)*

FP6-02: Membrane peeling and shorter waiting time increase  
succesfull rate of retinal detachment surgery-  
*Gilbert w s Simanjuntak (Indonesia)*

FP6-03: Incidence of Post-Intravitreal Anti-VEGF endophthal-  
mitis at Thammasat University Hospital- *Duangmontree  
Rojdamrongratana (Thailand)*

FP6-05: Diffuse unilateral subacute neuroretinitis in central  
region of Thailand- *Atiporn Surawongsin (Thailand)*

FP6-06: Deep range imaging optical coherence tomography  
(DRI-OCT): A Novel imaging technique for polypoidal choroidal  
vasculopathy- *Daniel shu wei Ting (Singapore)*

SYM 8-L7: ASEAN Eye Hospital Association

Lotus7

FP7

Lotus 12

Information Technology : Electronic Medical Records  
and Mobile Eye Apps Changing Delivery of Eye Care  
World-wide

Chairman: Sirithorn Rutnin

Co-chairman: -

Implementation of EMR in Jakarta Eye Center: Paperless  
records, steps for faster service- *Johan Hutaurak  
(Indonesia)*

EMR implementations in eye hospitals in the USA: Successes  
& challenges- *Robert Betz (USA)*

Mobile apps and automation: Enhancements for fast and  
seamless patient care- *Jean-Pierre Dumas (Thailand)*

Mobile Apps improving patient care and collaborative with  
eye care providers- *Charity Wai (Singapore)*

Pediatric Ophthalmology Free Paper

Chairman: Supaporn Tengtrisorn

Co-chairman: Parnchal Pukrushpan

Judge: Pantipa Wongwai

FP7-01: Marfan syndrome management- *Maretha Amrayni  
(Indonesia)*

FP7-02: Risk factors in developing retinopathy of prematurity  
in newborns in a private tertiary institution in the Philippines-  
*Carlos Chua (Philippines)*

FP7-03: Using of ocular biometric values from donor's ey  
es to create a new formula for horizontal strabismic correction-  
*Sumet Supalaset (Thailand)*

10.00-10.30: Coffee Break and E-Poster Presentation

Convention B



## FP4-03

### Visual acuity improvement and cost saving of vitrectomy between local anesthesia and general anesthesia

Gilbert W S Simanjuntak

<sup>1</sup>Department of Ophthalmology, Christian University of Indonesia, Jakarta, Indonesia

<sup>2</sup>Department of Ophthalmology, Cikini CCI Hospital, Jakarta, Indonesia

Presenting author e-mail: retinaid@yahoo.com

Contact E-mail: retinaid@yahoo.com

#### Abstract:

**Objective:** To report cost-effectiveness analysis of vitrectomy between local and general anesthesia for rhegmatogenous retinal detachment.

**Methods:** Retrospective cohort study in two hospitals with 100 subjects that fulfill inclusion and exclusion criteria. Effectiveness was visual acuity improvement in two or more logMAR scale after vitrectomy, and units cost data were given by both hospitals.

**Results:** The amount of Rp. 23.959.000,- was needed to achieve effectiveness 32% in general anesthesia. The amount of Rp. 15.950.200,- was needed to achieve effectiveness 80% in local anesthesia. These data interpretation and extrapolation should be done cautiously. There is cost-minimization 50,12% when doing vitrectomy under local versus general anesthesia.

**Conclusions:** Vitrectomy for rhegmatogenous retinal detachment can be done under local anesthesia with higher effectiveness and lower cost.

**Keywords:** Local anesthesia, retinal detachment, cost-effective analysis

## FP4-05

### Validation study to prevalence of blind resulted from NHBR 2013

Farida Sirian<sup>1</sup>, Lulu Fattah<sup>2</sup>, Nylvia Sardi<sup>3</sup>, Yeni Dwi Lestari<sup>3</sup>

<sup>1</sup>Vice President, Indonesia Ophthalmologist Association, Indonesia

<sup>2</sup>Research and Development Section, IOA, Indonesia

<sup>3</sup>Community Program Section, IOA, Indonesia

Presenting author e-mail: sirianfarida@gmail.com

Contact E-mail: sirianfarida@gmail.com

#### Abstract:

#### Objective:

- to know validity of the data of Blind n VI from NBHR 2013
- to find the correction factor of the data of Blind and VI from NBHR 2013

**Method:** The data of blind and visual impairment (n: 150) reported by NHBR will be reconfirmed by IOA enumerators in 3 provinces selected and will use stata 12 for data analyzing.

**Results:** will be presented later

**Conclusion:** will be presented later

**Keywords:** Prevalence of blind, validity, NHBR 2013

## Foveal sensitivity after half-dosage Visudyne with Photodynamic therapy in Central Serous Chorioretinopathy (CSCR)

Phasapan Pitujaturont<sup>1</sup>, Thuss Sanguansak<sup>2</sup>, Tanapat Rotanapakorn<sup>1</sup>, Suthasinee Srinawat<sup>1</sup>, Chavakij Bhoomibunchoo<sup>1</sup>, Yosanan Yospaiboon<sup>1</sup>

<sup>1</sup>Ophthalmology, Khonkean university, Thailand

Presenting author e-mail: yueoph06@gmail.com

Contact E-mail: yueoph06@gmail.com

### Abstract:

**Objective:** To study foveal sensitivity in patient who got half-dosage visudyne with full fluence photodynamic therapy (HD-PDT)

**Methods:** 24 patients, were diagnosed CSCR and treated with HD-PDT were enrolled in this study. Both oculars were examined including best corrected visual acuity (BCVA) in LogMAR, macular thickness ( $\mu\text{m}$ ), macular volume ( $\text{mm}^3$ ) and IS/OS junction, computerized tomography visual field in program 10-2 with foveal threshold (dB) and mean retinal sensitivity (dB) both eccentric and quadrant area. The data of study eye was compared with the data of another as control. Spot size of LASER ( $\mu\text{m}$ ), duration (week) before treatment and after treatment was recored. STATA was statistic analysis.

**Results:** 17-patient was male and mean age was 46-year-old (36-68). BCVA bfore and after HD-PDT was  $0.26 \pm 0.3$  LogMAR and  $0.075 \pm 0.15$  LogMAR, respectively ( $p < 0.05$ ). Mean spot size of LASER was  $2.216 \mu\text{m}$  ( $1.086-4.398 \mu\text{m}$ ), mean duration time before treatment was 32 weeks (15-96 weeks) and after treatment was 130 weeks (48-216 weeks). Foveal threshold was  $28.75 \pm 6.52$  dB in study eye and  $32.33 \pm 3.35$  dB in control eye, ( $p < 0.05$ ). The 5-patient was loss IS/OS junction and the 2-patient was subretinal fluid persistent.

**Conclusion:** HD-PDT can promote clinically statistical significant improving visual acuity but it can be affect the foveal and retinal sensitivity. Monitoring in foveal sensitivity and visual acuity may be necessary in long-term follow-up.

**Keywords:** CSCR, Photodynamic therapy, foveal sensitivity

## Membrane peeling and shorter waiting time increase succesfull rate of retinal detachment surgery

Gilbert W S Simanjuntak<sup>1,2</sup>

<sup>1</sup>Department of Ophthalmology, Christian University of Indonesia, Jakarta, Indonesia

<sup>2</sup>Department of Ophthalmology, Cikini CCI Hospital, Jakarta, Indonesia

Contact E-mail: retinaid@yahoo.com

### Abstract:

**Objective:** To report vitrectomy result of retinal detachment.

**Methods:** Retrospective cohort study in two hospitals with 100 subjects that fulfill inclusion and exclusion criteria. Effectiveness was visual acuity improvement in two or more logMAR scale after vitrectomy. Surgical procedure was recorded, and analized.

**Result:** Effectiveness was 80% under local anesthesia, and 32% under general anesthesia. These data interpretation and extrapolation should be done cautiously. Multivariate analysis of effectiveness and cost showed that variables of detachment duration if less than 4 weeks (RR 1.85) and of local anesthesia (RR 2.58) were contributing for better surgical outcome. Shorter waiting time (time needed for surgery after diagnosed), and more membrane peeling done in local anesthesia group were different variabels ( $p < 0.00$ ) between two groups significantly.

**Conclusions:** Membrane peeling and shorter waiting time increase successful rate of vitrectomy for retinal detachment.

**Keywords:** Successful rate, health service, membrane peeling

<u>Last Name</u>	<u>Session</u>	<u>Last Name</u>	<u>Session</u>
Pukrushpan, P	SYM9-L1	Srivannaboon, S	SYM4-PL
Pw, L	O-01-01, PO-03-02	Srivatsa, P	SYM4-PL
Quah, B	SYM1-L1,SYM10-L1	Sugiarti, E	FP5-04
Ranu, S	FP4-07	Supakontanasan, W	SYM9-L3
Reinprayoon, U	SYM7-PL	Supalaseth, S	FP7-03
Rojanapongpun, P	SYM3-PL, SYM5-L7	Surawongsin, A	FP6-05
Rojanaporn, D	SYM7-L1	Suwan, Y	FP3-06
Rojanaporn, D	FP1-09	Suwan-apichon, O	SYM5-PL
Rojdamrongratana, D	FP6-03	Tan, D	SYM5-PL, SYM7-PL
Ruamviboonsuk, P	SYM3-L1	Tananuwat, N	SYM5-PL
Rutnin, S	SYM9-L7	Tantisevi, V	SYM2-L3
Sai, D	PO-03-03, PO-08-02	Teo, K	FP2-04
Sakiyaluk, D	SYM5-L7	Thanathanee, O	FP3-09
Sansanayudh, W	SYM10-L7	Thiamthat, W	SYM10-L1
Santhirathelagan, C	SYM7-PL	Ting, D	FP6-06
Saonanon, P	FP1-04	Tsai, A	FP8-09
Saovaprut, C	SYM3-PL, SYM5-L3	Tulvatana, W	SYM3-L5
Sarmiento - clemente, R	FP1-05	Tuyet, T	SYM9-L3
Satjapakasit, O	PO-06-04	Uranchimeg, D	SYM7-L7
Shidik, S	FP2-03	Uy, H	SYM4-L3
Sidhu, N	PO-01-04	Valero, S	SYM4-L3, SYM5-L3
Silva, P	SYM3-L1	Van anh, C	PO-08-08
Simanjuntak, G	FP4-03, FP6-02	Vatanavicharn, S	FP1-02
Simaroj, P	SYM4-L7, SYM5-L5	Vierlia, W	PO-01-02
Singha, P	SYM9-L1	Viet hung, B	PO-08-03
Sirlan, F	FP4-05	Wai, C	SYM8-L7
Sittivarakul, W	SYM2-L7, FP8-08	Wangtiraumnuy, N	SYM10-L1
Solanki, P	PO-09-02	Wanichwecharunguang, B	SYM9-L3
Sothornwit, N	SYM1-L3	Wanumkarng, N	SYM6-L5, SYM8-L5, SYM10-L2
Sovani, I	SYM4-L3, SYM5-L3	Wiriyasatiankun, P	FP3-02





## ASEAN OPHTHALMOLOGY SOCIETY

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Dear Gilbert W S Simanjuntak,

Thank you very much for your kind submission. The recommendation on your abstract submission is as below for your kind information. If your status is accepted, you are requested to register by 20<sup>th</sup> December 2013, 24.00 hrs at GMT+7 to include your abstract in final program book.

**Your initial submission:**

Submission number: ABS0040

Abstract presentation type : Either Oral or PosterPresentation

Abstract topic area : Public Health Ophthalmology

Abstract title: Visual Acuity Improvement and Cost Saving of Vitrectomy Between Local Anesthesia and General Anesthesia

**Your abstract was accepted as oral presentation.**

**Your recommended topic area is Public Health Ophthalmology**

We thank you very much for your kind participation and we remain available for any query.

**Best Regards,**

**Paisan Ruamviboonsuk MD.**

*Chairperson of 1st AOS 2014 Organizing Committee*

Congress Secretariat: [conference@aos2014bangkok.org](mailto:conference@aos2014bangkok.org)

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# Visual Acuity Improvement and Cost Saving of Vitrectomy Between Local Anesthesia and General Anesthesia

**Gilbert W S Simanjuntak**

<sup>1</sup>Department of Ophthalmology, Christian University of Indonesia, Jakarta, Indonesia

<sup>2</sup>Department of Ophthalmology, Cikini CCI Hospital, Jakarta, Indonesia

Presenting author e-mail: retinaid@yahoo.com

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**Keywords:** *Local anesthesia, retinal detachment, cost-effective analysis*

# CERTIFICATE OF APPRECIATION

This is to certify that  
**Gillbert W. S. Simanjuntak**  
has been awarded  
the BEST PAPER in session of  
**RETINA**

THE 1<sup>st</sup> CONGRESS OF ASEAN OPHTHALMOLOGY SOCIETY 2014

‘Ten Countries, One Society, One Vision’

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Centara Grand & Bangkok Convention Centre at CentralWorld, Bangkok, Thailand



Paisan Ruamviboonsuk, MD  
Chairman, Organizing Committee



Jutalai Tanterdtham, MD  
Scientific Committee Chair

# CERTIFICATE OF ORAL PRESENTATION

This is to certify that

**Gilbert W. S. Simanjuntak**

has attended in session of PUBLIC HEALTH

**THE 1<sup>st</sup> CONGRESS OF ASEAN OPHTHALMOLOGY SOCIETY 2014**

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ASEAN OPHTHALMOLOGY SOCIETY

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Gilbert W S Simanjuntak

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Cikini CCI Hospital, Jakarta, Indonesia

Presenting author e-mail: [retinaid@yahoo.com](mailto:retinaid@yahoo.com)

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# Visual Acuity Improvement and Cost Saving of Vitrectomy Between Local Anesthesia and General Anesthesia

Gilbert WS Simanjuntak

Dept. of Ophthalmology Medical Faculty UKI  
Cikini Eye Institute/Cikini CCI Hospital  
Jakarta, Indonesia



no financial interest in items discussed



# Introduction

- ✓ Paradigm shift from general anesthesia to local anesthesia, even topical
  - ✓ Safer, lower cost and comfortable
  - ✓ Since 1980s
  - ✓ Cochrane systematic review (226 randomised clinical trial) involving 1284 cataract : similar result. [Fedorowicz Z, 2006]
- ✓ Local anesthesia is not a standard for vitrectomy
- ✓ Cost effectiveness analysis never conducted on local versus general anesthesia for vitrectomy

# Objective

- ✓ To report vitrectomy result and cost saving of retinal detachment from two different anesthesia procedure

# Methods

- ✓ Retrospective cohort study in two hospitals with 100 subjects that fulfill inclusion and exclusion criteria.
- ✓ Improvement was visual acuity increased two or more logMAR scale after vitrectomy.
  - ✓ Surgical procedure was recorded, and analyzed.
  - ✓ Cost effectiveness analysis, units cost data were given by both hospitals



## Pre operative equality:

- Initial VA
  - Funduscopy finding including
  - Tear size
  - Duration of detachment
  - Media clarity
- ◎ Surgical procedure : complete procedure  
(BB + PPV  $\pm$  MP  $\pm$  HF + EL + Tamponade)  
LA/GA

# Result (equality preoperative)

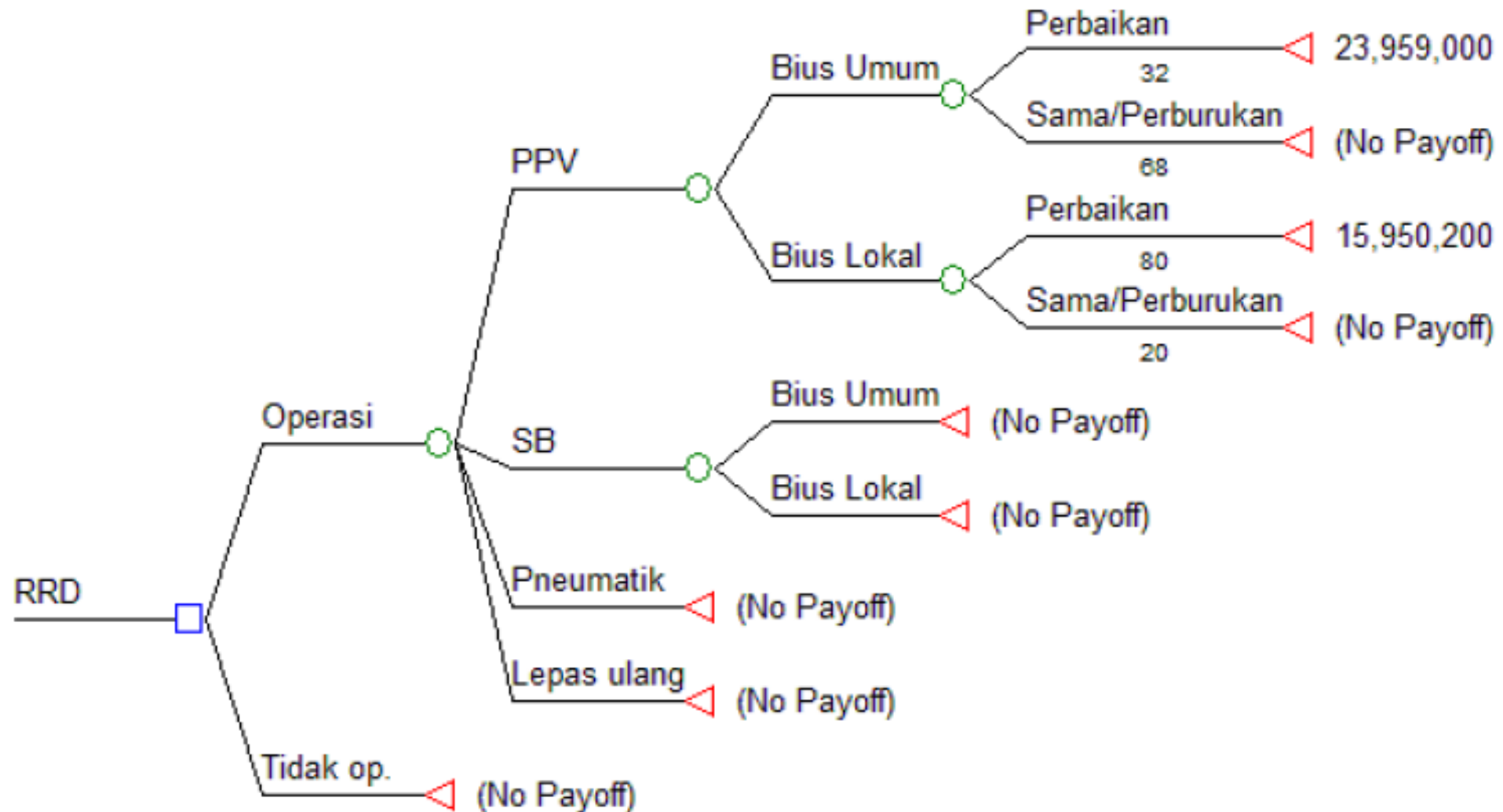
Characteristic		Group 1	Group 2	p
Demography:				
-Age (year)		46,42 ± 16,25	50,28 ± 13,36	0,20
-Education	High	35 (70 %)	42 (84 %)	0,15
	Medium-	15 (30 %)	8 (16 %)	
	Low			
-Gender	Male	27 (54 %)	27 (54 %)	0,58
	Female	23 (46 %)	23 (46 %)	
Ophthalmology :				
-Detachment (day)		110,80 ± 24,13	85,08 ± 17,52	0,43
-Initial BCVA		2,10 ± 0.622	1,97 ± 0,92	0,42
General condition:				
-Hemoglobin		15,11 ± 0,94	15,51 ± 1,17	0,17
-Leukocyte		7,48 ± 0,89	7,68 ± 0,78	0,71
-Thrombocyte		240,40 ± 25,15	247,88 ± 30,20	0,28
-Blood sugar		89,82 ± 9,80	88,62 ± 9,70	0,77
-Prothrombine time		12,72 ± 0,76	12,40 ± 0,57	0,06

Variable		Result				Total	<i>p</i>	RR	95% CI
		Improvement		Not improve					
		N	%	N	%				
<b>Main</b>									
Anesthesia	Local	40	80	10	20	50	0,00	2,50	1,63 – 3,80
	General	16	32	34	68	50			
<b>Others</b>									
Age	<50 years	20	41,7	28	58,3	48	0,00	0,60	0,41 – 0,88
	≥50 years	36	69,2	16	30,8	52			
Hospita- lization	I and VIP	12	66,7	6	33,3	18	0,31	1,24	0,85 – 1,82
	II and III	44	53,7	38	46,3	82			
PVR/MP (done)	Yes	13	72,2	5	27,8	18	0,13	1,38	0,97 – 1,96
	No	43	52,4	39	47,6	82			
Education	≥ High	44	57,1	33	42,9	77	0,67	1,10	0,71 – 1,70
	< Medium	12	52,2	11	47,8	23			
Detachment duration	< 4 weeks	14	77,8	4	22,2	18	0,04	1,51	1,10 – 2,10
	≥ 4 weeks	42	52,4	40	48,8	82			
Gender	Male	32	59,3	22	40,7	54	0,48	1,14	0,80 – 1,62
	Female	24	52,2	22	47,8	46			
<b>Total</b>		56	56	44	44	100			

		General Anesth	Local Anesth	Difference*	
		(Rp)	( Rp)	Rp.	%
Improvement		32 %	80 %	-	48
Unit cost	Preoperative cost	754.000	895.200	+ 141.200	15,77
	Operative cost	19.650.000	13.000.000	- 6.650.000	-51,15
	Anesthesia cost	2.800.000	1.400.000	- 1.400.000	-50
	Postoperative cost	755.000	655.000	- 100.000	-15,26
	Total	23.959.000	15.950.200	- 8.008.800	-50,21



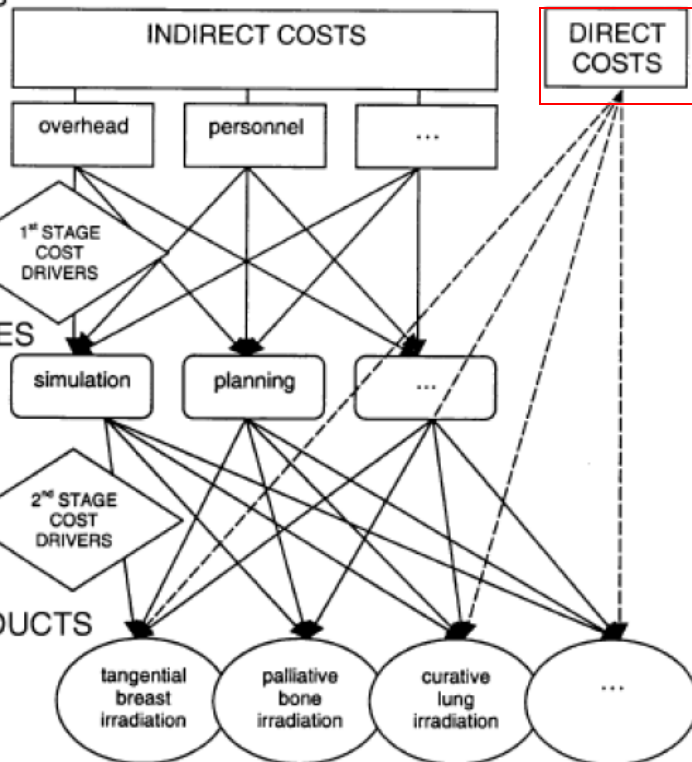
# Decision Tree



# Discussion

- ◎ Big difference (%) between anesthesia procedure
- ◎ Local anesthesia (intervention), RR 2.58 (95%CI 2.04 – 13.35) for chance of improvement after surgery
  - Paradigm shift, lower cost and safer. Meta-analysis study. [Fedorowicz Z,2006]
  - Shorter time for postoperative mobilization, positioning post op
  - Big contribution toward cost reduction (cost saving, 50%)

# COSTS



MOST PRECISE



LEAST PRECISE

## Micro-costing

Each component of resource use (e.g. laboratory tests, days of stay by ward, drugs) is estimated and a unit cost derived for each.

## Case-mix group

Gives the cost for each category of case or hospital patient. Takes account of length of stay. Precision depends on the level of detail in specifying the types of cases.

## Disease-specific per diem (or daily cost)

Gives the average daily cost for treatments in each disease category. These may still be quite broad (e.g. orthopaedic surgery).

## Average per diem (or daily cost)

Averages the per diem over all categories of patient. Available in most health care systems.

Cost-matrix	Labor costs				Material costs				Infrastructure costs	
	Physicians	Nursing	Medical/technical staff	Drugs general	Drugs individual	Implants and grafts	Material	Material individual	Medical	Non-medical
Cost category groups										
Cost-center groups										
Ward	Care days	Weighted minutes	Care days	Weighted minutes		-	Weighted minutes		Care days	
Intensive care	Weighted hours					Actual usage/unit costs	Weighted hours		Weighted hours	
Dialysis	Weighted dialysis					-	Weighted dialysis		Weighted dialysis	
Operating rooms	Surgery times and setup time		Surgery times and setup time		Actual usage/unit costs	Actual usage unit costs	Surgery times and setup time		Surgery times and setup time	
Anesthesia	Anesthesia times		Anesthesia times			-	Anesthesia times		Anesthesia times	
Delivery ward	Time in delivery ward		Time in delivery ward			-	Time in delivery ward	Actual usage/unit costs	Time in delivery ward	
Cardiac diagnostics/therapy	Point system/duration		Point system/duration			Actual usage/unit costs	Point system/duration		Point system/duration	
Endoscopic diagnostics/therapy	Point system		Point system				Point system		Point system	
Radiology	Point system		Point system				Point system		Point system	
Laboratories	Point system/duration						Point system/duration		Point system/duration	
Further diagnostics/therapy							Point system/duration		Point system/duration	

Voegl, 2008

Drummond, 1999

## Conclusion

1. Significant factor for improvement and cost reduction are detachment duration (RR 1.85) if  $< 4$  minggu, and local anesthesia (RR 2.58)
2. Vitrectomy under local anesthesia are more affordable than general anesthesia, cost reduction 50%



THANK YOU