

## TINJAUAN PUSTAKA

- Ahmed, M. . *et al.* (2019) ‘Corneal biomechanics and intraocular pressure changes after uneventful phacoemulsification surgery’, *Journal of the Egyptian Ophthalmological Society*, 112(4), p. 145. doi: 10.4103/ejos.ejos\_65\_19.
- Alabdulwahhab, K. M. (2022) ‘Senile Cataract in Patients with Diabetes with and Without Diabetic Retinopathy: A Community-Based Comparative Study’, *Journal of Epidemiology and Global Health*. Springer Netherlands, 12(1), pp. 56–63. doi: 10.1007/s44197-021-00020-6.
- Astari, P. (2018) ‘Katarak: Klasifikasi, Tatalaksana, dan Komplikasi Operasi’, *Astari, Prilly*, 45(10), pp. 748–753.
- Bayar, S. (2018) ‘PEDOMAN NASIONAL PELAYANAN KEDOKTERAN TATA LAKSANA KATARAK PADA DEWASA’, pp. 1–39.
- Beato, J. N. *et al.* (2019) ‘Intraocular pressure and anterior segment morphometry changes after uneventful phacoemulsification in type 2 diabetic and nondiabetic patients’, *Journal of Ophthalmology*, 2019(Dm). doi: 10.1155/2019/9390586.
- Çakır, B. *et al.* (2015) ‘Toxic anterior segment syndrome after uncomplicated cataract surgery possibly associated with intracameral use of cefuroxime’, *Clinical Ophthalmology*, 9, pp. 493–497. doi: 10.2147/OPTH.S74249.
- Christine, R. N., Sinurat, V. L. and Adella, T. (2022) ‘Relationship between intraocular pressure, diabetes mellitus, and hypertension with visual acuity after phacoemulsification surgery’, pp. 38–45.
- Dwi S, E. (2018) ‘Lensa dan Katarak’, *Advanced Optical Materials*, 10(1), pp. 1–9.  
Available at:  
[https://doi.org/10.1103/PhysRevB.101.089902%0Ahttp://dx.doi.org/10.1016/j.nantod.2015.04.009%0Ahttp://dx.doi.org/10.1038/s41467-018-05514-9%0Ahttp://dx.doi.org/10.1038/s41467-019-13856-1%0Ahttp://dx.doi.org/10.1038/s41467-020-14365-2%0Ahttp://dx.doi.org/1.](https://doi.org/10.1103/PhysRevB.101.089902)

- Fong, C. S. U. *et al.* (2012) ‘Visual outcomes 12 months after phacoemulsification cataract surgery in patients with diabetes’, *Acta Ophthalmologica*, 90(2), pp. 173–178. doi: 10.1111/j.1755-3768.2009.01851.x.
- Gupta, V., Rajagopala, M. and Ravishankar, B. (2014) ‘Etiopathogenesis of cataract: An appraisal’, *Indian Journal of Ophthalmology*, 62(2), pp. 103–110. doi: 10.4103/0301-4738.121141.
- Ismandari, F. (2018) ‘InfoDATIN Situasi Gangguan Penglihatan’, *Kementerian Kesehatan RI Pusat Data dan Informasi*.
- Kementerian Kesehatan RI (2018) *Apa itu Stroke ? - Direktorat P2PTM, Direktorat P2PTM*. Available at: <http://p2ptm.kemkes.go.id/infographic-p2ptm/gangguan-indera/apa-itu-katarak> (Accessed: 29 December 2021).
- Kementerian kesehatan republik indonesia (2020) ‘Tetap Produktif, Cegah Dan Atasi Diabetes Mellitus’, *pusat data dan informasi kementerian kesehatan RI*.
- Khairani, Nugrahalia, M. and Sartini (2016) ‘BioLink HUBUNGAN KATARAK SENILIS DENGAN KADAR GULA DARAH PADA PENDERITA DIABETES MELLITUS DI MEDAN Relations with Senile Cataract Blood Sugar Levels in Patients Diabetes Mellitus in Medan’, *BIOLINK (Jurnal Biologi Lingkungan Industri Kesehatan)*, 2(2), pp. 110–116. Available at: <http://ojs.uma.ac.id/index.php/biolink>.
- Kiziltoprak, H. *et al.* (2019) ‘Cataract in diabetes mellitus’, *World Journal of Diabetes*, 10(3), pp. 140–153. doi: 10.4239/wjd.v10.i3.140.
- Linardi, D. (2018) ‘Digital Commons @ Otterbein Pathophysiology of Insulin Resistance and Type II Diabetes Mellitus’.
- Lukitasari, A. (2011) ‘Katarak Diabetes’, *Jurnal Kedokteran Syiah Kuala*, 11(1), pp. 42–47.
- MASITHO, M. (2019) ‘GAMBARAN KADAR GULA DARAH SEWAKTU PADA PASIEN DIABETES MELLITUS DENGAN TINDAKAN OPERASI KATARAK DI RUMAH SAKIT KHUSUS MATA PROVINSI SUMATERA SELATAN TAHUN

- 2019', *Karya Tulis Ilmiah*.
- Parnanda, D. Z. (2017) 'Perbedaan Tekanan Intra Okular (TIO) sebelum dan sesudah operasi fakoemulsifikasi pada pasien katarak senilis di RSUP Fatmawati Tahun 2016'. Available at: <https://repository.uinjkt.ac.id/dspace/handle/123456789/37242>.
- Picoto, M. *et al.* (2014) '20 picoto\_2014\_IOP', 73(4), pp. 230–236.
- Prokofyeva, E., Wegener, A. and Zrenner, E. (2013) 'Cataract prevalence and prevention in Europe: A literature review', *Acta Ophthalmologica*, 91(5), pp. 395–405. doi: 10.1111/j.1755-3768.2012.02444.x.
- Purnaningrum, N. R. *et al.* (2014) 'Dengan Diabetes Mellitus Dan Tanpa Diabetes'.
- Putra, P. G. W., Sunariasih, N. N. and Ningrum, R. K. (2022) 'Perbedaan Tajam Penglihatan Pascaoperasi Fakoemulsifikasi Pada Pasien Katarak Dengan Diabetes Melitus dan Tanpa Diabetes Melitus', *Aesculapius Medical Journal*, 2(1), pp. 51–56.
- Sekelj, S. *et al.* (2021) 'Corneal edema recovery after phacoemulsification in type 2 diabetic versus non-diabetic patients', pp. 144–148. doi: 10.5603/DK.a2021.0003.
- Shaikh, A. R. *et al.* (2017) 'Visual outcome after phacoemulsification with lens implant in diabetic and non-diabetic patients; A comparative study', *Pakistan Journal of Medical Sciences*, 33(3), pp. 691–694. doi: 10.12669/pjms.333.12589.
- Shakya, K. *et al.* (2013) 'Corneal edema after phacoemulsification surgery in patients with type II diabetes mellitus', *Nepalese journal of ophthalmology : a biannual peer-reviewed academic journal of the Nepal Ophthalmic Society : NEPJOPH*, 5(2), pp. 230–234. doi: 10.3126/nepjoph.v5i2.8734.
- Tanda dan Gejala Diabetes - Direktorat P2PTM* (no date). Available at: <http://p2ptm.kemkes.go.id/artikel-sehat/tanda-dan-gejala-diabetes> (Accessed: 16 May 2022).
- Tsaousis, K. T. *et al.* (2016) 'Corneal oedema after phacoemulsification in the early postoperative period : A qualitative comparative case-control study between diabetics

- and non-diabetics', *Annals of Medicine and Surgery*. Elsevier Ltd, 5, pp. 67–71. doi: 10.1016/j.amsu.2015.12.047.
- Vaishali, V. (2018) 'Prinsip-prinsip Petunjuk Teknis Operasi Katarak', *Apacrs*, pp. 20–21.
- WHO (2019) 'World report on vision', *World health Organization*, 214(14), pp. 1–160.
- Zaczek, A. and Zetterstrom, C. (1998) 'Aqueous flare intensity after phacoemulsification in patients with diabetes mellitus', *Journal of Cataract and Refractive Surgery*, 24(8), pp. 1099–1104. doi: 10.1016/S0886-3350(98)80104-1.
- Zhu, B. *et al.* (2017) 'Vision-related quality of life and visual outcomes from cataract surgery in patients with vision-threatening diabetic retinopathy: A prospective observational study', *Health and Quality of Life Outcomes*. Health and Quality of Life Outcomes, 15(1), pp. 1–7. doi: 10.1186/s12955-017-0751-4.

## LAMPIRAN

### Usia

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<50 tahun	12	14.0	14.0	14.0
	50 - 69 tahun	53	61.6	61.6	75.6
	≥70 tahun	21	24.4	24.4	100.0
Total		86	100.0	100.0	

### Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Laki-laki	47	54.7	54.7	54.7
	Perempuan	39	45.3	45.3	100.0
	Total	86	100.0	100.0	

### Diagnosis

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Pasien DM	43	50.0	50.0	50.0
	Pasien non DM	43	50.0	50.0	100.0
	Total	86	100.0	100.0	

### Distribusi GDS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	GDS normal <140 mg/dl	14	32.6	32.6	32.6
	GDS 140 – 199 mg/dl	13	30.2	30.2	62.8
	GDS ≥200 mg/dl	16	37.2	37.2	100.0
Total		43	100.0	100.0	

### Mata yang dioperasi

		Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Kanan (OD)	45	52.3	52.3	52.3
	Kiri (OS)	41	47.7	47.7	100.0
	Total	86	100.0	100.0	

**Klinis**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Katarak senilis imatur	38	88.4	88.4	88.4
	Katarak senilis matur	5	11.6	11.6	100.0
	Total	43	100.0	100.0	

**VisusPreOp**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Baik (6/6 – 6/18 atau 20/20 – 20/60)	9	10.5	10.5	10.5
	2. Sedang (<6/18 – 6/60 atau <20/60 – 20/200)	29	33.7	33.7	44.2
	Buruk (<6/60 atau <20/200)	48	55.8	55.8	100.0
	Total	86	100.0	100.0	

**VisusPostOp**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Baik (6/6 – 6/18 atau 20/20 – 20/60)	37	43.0	43.0	43.0
	2. Sedang (<6/18 – 6/60 atau <20/60 – 20/200)	32	37.2	37.2	80.2
	Buruk (<6/60 atau <20/200)	17	19.8	19.8	100.0
	Total	86	100.0	100.0	

**TIOPreOp**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal (TIO: 10 – 21 mmHg)	83	96.5	96.5	96.5
	Rendah (TIO: <10 mmHg)	1	1.2	1.2	97.7
	Meningkat (TIO: >21 mmHg)	2	2.3	2.3	100.0
	Total	86	100.0	100.0	

**TIOPostOp**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal (TIO: 10 – 21 mmHg)	77	89.5	89.5	89.5
	Rendah (TIO: <10 mmHg)	1	1.2	1.2	90.7
	Meningkat (TIO: >21 mmHg)	8	9.3	9.3	100.0
	Total	86	100.0	100.0	

**InflamasiPostOp**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Inflamasi	48	55.8	55.8	55.8
	Tidak inflamasi	38	44.2	44.2	100.0
	Total	86	100.0	100.0	

**Edema Kornea PostOp**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Edema	44	51.2	51.2	51.2
	Tidak edema	42	48.8	48.8	100.0
	Total	86	100.0	100.0	

Perbedaan progress luaran (visus) pasien katarak antara pasien DM dan non-DM

<b>Ranks</b>				
	Kelompok	N	Mean Rank	Sum of Ranks
Progress Visus	DM	43	48.10	2068.50
	Non DM	43	38.90	1672.50
	Total	86		

#### **Test Statistics<sup>a</sup>**

	Progress Visus
Mann-Whitney U	726.500
Wilcoxon W	1672.500
Z	-2.070
Asymp. Sig. (2-tailed)	<b>.038</b>

a. Grouping Variable: Kelompok

Perbedaan progress luaran (TIO) pasien katarak antara pasien DM dan non-DM

<b>Ranks</b>				
	Kelompok	N	Mean Rank	Sum of Ranks
Progress TIO	DM	43	38.83	1669.50
	Non DM	43	48.17	2071.50
	Total	86		

#### **Test Statistics<sup>a</sup>**

	Progress TIO
Mann-Whitney U	723.500
Wilcoxon W	1669.500
Z	-1.967
Asymp. Sig. (2-tailed)	<b>.049</b>