

DAFTAR PUSTAKA

- Ahern, D. P., Kelly, M. E., Courtney, D., Rausa, E., & Winter, D. C. (2017). The management of penetrating rectal and anal trauma: A systematic review. *Injury*, *48*(6), 1133–1138. <https://doi.org/10.1016/j.injury.2017.03.002>
- Altomare, D. F. (2017). Anal and rectal trauma. *Coloproctology*, 371–376. https://doi.org/10.1007/978-3-662-53210-2_32
- Alves, R., & Grimalt, R. (2017). A review of platelet-rich plasma: History, biology, mechanism of action, and classification. *Skin Appendage Disorders*, *4*(1), 18–24. <https://doi.org/10.1159/000477353>
- Bi, H., Li, H., Zhang, C., Mao, Y., Nie, F., Xing, Y., Sha, W., Wang, X., Irwin, D.M., & Tan, H. (2019). Stromal vascular fraction promotes migration of fibroblasts and angiogenesis through regulation of extracellular matrix in the skin wound healing process. *Stem Cell Research & Therapy*, *10*(1). <https://doi.org/10.1186/s13287-019-1415-6>
- Black, C. T., Pokorny, W. J., McGill, C. W., & Harberg, F. J. (1982). Ano-rectal trauma in children. *Journal of Pediatric Surgery*, *17*(5), 501–504. [https://doi.org/10.1016/s0022-3468\(82\)80097-3](https://doi.org/10.1016/s0022-3468(82)80097-3)
- Brown, J. C., & Katz, A. J. (2019). Stem cells derived from fat. *Principles of Regenerative Medicine*, 295–305. <https://doi.org/10.1016/b978-0-12-809880-6.00019-9>
- Choi, M., Ban, T., & Rhim, T. (2014). Therapeutic use of stem cell transplantation for cell replacement or cytoprotective effect of microvesicle released from mesenchymal stem cell. *Molecules and cells*, *37*(2), 133–139. <https://doi.org/10.14348/molcells.2014.2317>
- Dick, M. K. (2021, August 4). *Histology, fibroblast*. StatPearls [Internet]. Retrieved October 18, 2021, from <https://www.ncbi.nlm.nih.gov/books/NBK541065/>.
- Encyclopædia Britannica, inc. (2018, November 22). *Fibroblast*. Encyclopædia Britannica.

Retrieved October 18, 2021, from <https://www.britannica.com/science/fibroblast>.

- Eppley, B. L., Pietrzak, W. S., & Blanton, M. (2006). Platelet-rich plasma: a review of biology and applications in plastic surgery. *Plastic and reconstructive surgery*, 118(6), 147e–159e. <https://doi.org/10.1097/01.prs.0000239606.92676.cf>
- Givel, J.-C., & McC, M. N. J. (2010). *Anorectal and colonic diseases: A practical guide to their management*. Springer.
- Hausman, G. J., & Richardson, R. L. (2004). Adipose tissue angiogenesis. *Journal of animal science*, 82(3), 925–934. <https://doi.org/10.2527/2004.823925x>
- Herzig, D. (2012). Care of the patient with anorectal trauma. *Clinics in Colon and Rectal Surgery*, 25(04), 210–213. <https://doi.org/10.1055/s-0032-1329391>
- Jeganathan, A., Cannon, J., & Bleier, J. (2017). Anal and perineal injuries. *Clinics in Colon and Rectal Surgery*, 31(01), 024–029. <https://doi.org/10.1055/s-0037-16021>
- Karina, Samudra, M. F., Rosadi, I., Afini, I., Widyastuti, T., Sobariah, S., Remelia, M., Puspitasari, R. L., Rosliana, I., & Tunggadewi, T. I. (2019). Combination of the stromal vascular fraction and platelet-rich plasma accelerates the wound healing process: pre-clinical study in a Sprague-Dawley rat model. *Stem cell investigation*, 6, 18. <https://doi.org/10.21037/sci.2019.06.08>
- Kakudo, N., Kushida, S., & Kusumoto, K. (2011). Adipose-derived stem cells and platelet-rich plasma: Implications for regenerative medicine. *Stem Cells and Cancer Stem Cells, Volume 2*, 315–321. https://doi.org/10.1007/978-94-007-2016-9_34
- Kendall, R. T., & Feghali-Bostwick, C. A. (2014). Fibroblasts in fibrosis: Novel roles and mediators. *Frontiers in Pharmacology*, 5. <https://doi.org/10.3389/fphar.2014.00123>
- Komlatsè Akakpo-Numado, G. (2015). Anorectal traumas in children. *Neonatology & Clinical Pediatrics*, 2(1), 1–5. <https://doi.org/10.24966/ncp-878x/100004>
- Laididing, S. R., Josh, F., Francisca, Faruk, M., Palissei, A. S., Satria, B., Warsingih,

- Bukhari, A., Massi, M. N., & Islam, A. A. (2020). Combination of platelet-rich plasma and stromal vascular fraction on the level of transforming growth factor- β in rat subjects experiencing deep dermal burn injury. *Annals of Medicine and Surgery*, 60, 737–742. <https://doi.org/10.1016/j.amsu.2020.11.088>
- Ni, X., Shan, X., Xu, L., Yu, W., Zhang, M., Lei, C., Xu, N., Lin, J., & Wang, B. (2021). Adipose-derived stem cells combined with platelet-rich plasma enhance wound healing in a rat model of full-thickness skin defects. *Stem cell research & therapy*, 12(1), 226. <https://doi.org/10.1186/s13287-021-02257-1>
- Rigotti, G., Charles-de-Sá, L., Gontijo-de-Amorim, N. F., Takiya, C. M., Amable, P. R., Borojevic, R., Benati, D., Bernardi, P., & Sbarbati, A. (2016). Expanded Stem Cells, Stromal-Vascular Fraction, and Platelet-Rich Plasma Enriched Fat: Comparing Results of Different Facial Rejuvenation Approaches in a Clinical Trial. *Aesthetic surgery journal*, 36(3), 261–270. <https://doi.org/10.1093/asj/sjv231>
- Singer, A. J., & Clark, R. A. (1999). Cutaneous wound healing. *The New England journal of medicine*, 341(10), 738–746. <https://doi.org/10.1056/NEJM199909023411006>
- Sultan, A. H., Rane, T., & Dee, F. E. (2009). *Perineal and anal sphincter trauma diagnosis and clinical management*. Springer.
- Tajima, S., Tobita, M., Orbay, H., Hyakusoku, H., & Mizuno, H. (2015). Direct and indirect effects of a combination of adipose-derived stem cells and platelet-rich plasma on bone regeneration. *Tissue Engineering Part A*, 21(5-6), 895–905. <https://doi.org/10.1089/ten.tea.2014.0336>
- Turksen, K. (Ed.). (2018). *Wound healing: Stem cells repair and restorations: Basic and clinical aspects* (1st ed.). Wiley Blackwell.
- Vinay Kumar Kapoor, M. B. B. S. (2021, June 14). *Anal Canal Anatomy: Gross anatomy, tissue, nerves, and muscles, pathophysiologic variants*. *Anal Canal Anatomy: Gross*

Anatomy, Tissue, Nerves, and Muscles, Pathophysiologic Variants. Retrieved
October 16, 2021, <https://emedicine.medscape.com/article/1990236-overview>.

Wendell-Smith, C. P. (2000). Anorectal nomenclature. *Diseases of the Colon & Rectum*,
43(10), 1349–1358. <https://doi.org/10.1007/bf0223662>

Lampiran 1. Rekomendasi Persetujuan Etik



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
 UNIVERSITAS HASANUDDIN FAKULTAS KEDOKTERAN
 KOMITE ETIK PENELITIAN UNIVERSITAS HASANUDDIN
 RSPTN UNIVERSITAS HASANUDDIN
 RSUP Dr. WAHIDIN SUDIROHUSODO MAKASSAR
 Sekretariat : Lantai 2 Gedung Laboratorium Terpadu
 JL.PERINTIS KEMERDEKAAN KAMPUS TAMALANREA KM.10 MAKASSAR 90245.
 Contact Person: dr. Agussalim Bukhari, MMed,PhD, SpGK. TELP. 081241850858, 0411 5780103, Fax : 0411-581431



REKOMENDASI PERSETUJUAN ETIK

Nomor : 768/UN4.6.4.5.31/ PP36/ 2022

Tanggal: 30 Nopember 2022

Dengan ini Menyatakan bahwa Protokol dan Dokumen yang Berhubungan Dengan Protokol berikut ini telah mendapatkan Persetujuan Etik :

No Protokol	UH22110713		No Sponsor Protokol	
Peneliti Utama	dr. Stevent Richardo		Sponsor	
Judul Peneliti	Penilaian Faktor Histopatologi Fibroblas Dalam Penyembuhan Trauma Anus Pada Tikus Wistar Yang Diberikan Stromal Vascular Fraction (SVF) dan Platelet Rich Plasma (PRP)			
No Versi Protokol	1	Tanggal Versi	16 Nopember 2022	
No Versi PSP		Tanggal Versi		
Tempat Penelitian	Laboratorium Hewan FKUH dan Laboratorium HUM-RC Makassar			
Jenis Review	<input type="checkbox"/> Exempted <input checked="" type="checkbox"/> Expedited <input type="checkbox"/> Fullboard Tanggal		Masa Berlaku 30 Nopember 2022 sampai 30 Nopember 2023	Frekuensi review lanjutan
Ketua KEP Universitas Hasanuddin	Nama Prof.Dr.dr. Suryani As'ad, M.Sc.,Sp.GK (K)	Tanda tangan 		
Sekretaris KEP Universitas Hasanuddin	Nama dr. Agussalim Bukhari, M.Med.,Ph.D.,Sp.GK (K)	Tanda tangan 		

Kewajiban Peneliti Utama:

- Menyerahkan Amandemen Protokol untuk persetujuan sebelum di implementasikan
- Menyerahkan Laporan SAE ke Komisi Etik dalam 24 Jam dan dilengkapi dalam 7 hari dan Laporan SUSAR dalam 72 jam setelah Peneliti Utama menerima laporan
- Menyerahkan Laporan Kemajuan (progress report) setiap 6 bulan untuk penelitian resiko tinggi dan setiap setahun untuk penelitian resiko rendah
- Menyerahkan laporan akhir setelah Penelitian berakhir
- Melaporkan penyimpangan dari prokol yang disetujui (protocol deviation / violation)
- Mematuhi semua peraturan yang ditentukan

Lampiran 2. Biodata Penulis

BIODATA PENULIS

I. DATA PRIBADI

Nama lengkap : dr. Stevent Richardo
Tempat/ tanggal lahir : Jakarta, 05 September 1986
Jenis Kelamin : Laki-laki
Status kewarganegaraan : Indonesia
Agama : Kristen
Alamat Korespondensi : Jln. Merbabu blok C. no 104, kelurahan Harapan Jaya,
kecamatan Bekasi Utara, kota Bekasi
Telepon : 082190958558
E-Mail : steventmksr2018@gmail.com

II. RIWAYAT KELUARGA

Nama orang tua
Ayah : Elly Sinlaeloe
Ibu : Helena Leyn
Alamat : Jln. Gunung Tonasa blok B. no 211, kelurahan Harapan Jaya,
kecamatan Bekasi Utara, kota Bekasi

III. RIWAYAT PENDIDIKAN

1992 – 1998 : SD Negeri Harapan Jaya VI
1998 – 2001 : SMP Negeri 1 Bekasi
2001 – 2004 : SMA Negeri 1 Bekasi
2004 – 2008 : Program Studi Sarjana Kedokteran Fakultas Kedokteran
Universitas Kristen Krida Wacana
2008 – 2010 : Program Studi Profesi Dokter Fakultas Kedokteran
Universitas Kristen Krida Wacana
2018 – 2023 : Program Studi Ilmu Bedah Universitas Hasanuddin

IV. RIWAYAT ORGANISASI

Anggota IDI

V. RIWAYAT PENELITIAN DAN PUBLIKASI

1. PENILAIAN FAKTOR HISTOPATOLOGI FIBROBLAS DALAM PENYEMBUHAN TRAUMA ANUS PADA TIKUS WISTAR YANG DIBERIKAN STROMAL VASCULAR FRACTION (SVF) DAN PLATELET RICH PLASMA (PRP)

Makassar, Januari 2023

dr. Stevent Richardo

Lampiran 3. Data Penelitian

NO	KLP	KODE	SKOR EPITELISASI	SKOR KOLAGEN	PMN	FIBROBLAST	KAPILER
1	KONTROL	K1	4	0	1/2/2	36/37/56	2/6/6
2		K2	4	0	1/2/2	25/30/33	6/5/5
3		K3	4	0	0/0/0	14/19/18	13/14/13
4		K4	4	0	0/0/1	30/35/34	4/4/7
5	TRAUMA – OBAT H1	C1	0	0	48/75/40	5/5/18	14/19/14
6		C2	0	0	63/137/62	10/15/11	28/32/18
7		C3	0	0	129/135/81	22/18/25	5/10/14
8		C4	0	0	133/10/97	19/20/19	12/8/15
9	TRAUMA + OBAT H1	Z1	0	0	79/101/47	19/6/17	8/5/5
10		Z2	1	0	138/137/77	30/45/22	11/21/12
11		Z3	1	0	121/100/97	29/25/39	31/38/34
12		Z4	1	0	133/117/97	18/13/35	18/29/39
13	TRAUMA – OBAT H7	B1	1	1	86/97/87	36/38/33	8/5/5
14		B2	0	0	89/27/115	44/88/40	11/21/12
15		B3	0	0	93/184/127	7/26/16	31/38/34
16		B4	2	3	36/112/71	17/42/35	18/29/39
17	TRAUMA + OBAT H7	Y1	1	0	108/113/61	27/24/67	11/16/10
18		Y2	4	3	4/10/5	25/40/34	9/3/6
19		Y3	4	3	6/3/9	39/49/50	4/8/5
20		Y4	2	3	18/36/42	14/72/52	8/11/11
21	TRAUMA – OBAT H14	A1	2	0	36/26//12	69/60/50	19/9/10
22		A2	4	2	23/20/28	55/50/47	11/15/11
23		A3	4	3	4/10/2	17/19/11	7/6/3
24		A4	4	3	2/0/5	8/11/22	14/12/4
25		A5	4	3	6/2/1	23/38/18	8/5/8
26	TRAUMA + OBAT H14	X1	4	3	4/1/2	27/34/31	3/2/1
27		X2	4	3	5/0/0	60/92/47	9/4/3
28		X3	4	3	0/0/1	19/28/20	5/3/7
29		X4	4	4	4/3/1	50/48/28	2/1/2

SKOR EPITELISASI & SKOR GRANULASI =PERBESARAN 100X
 PMN, FIBROBLAST, KAPILER = PERBESARAN 400X (3 LAPANG PANDANG)