

## DAFTAR PUSTAKA

- Al-Awar A, Kupai K, Veszelka M, Szucs G, Attieh Z, Murlasits Z, et al. Experimental Diabetes Mellitus in Different Animal Models. *J Diabetes Res.* 2016;2016.
- Apriasari, M. L., Ainah, Y., Febrianty, E., & Carabelli, A. N. (2019). Antioxidant Effect of Channa Micropeltes in Diabetic Wound of Oral Mucosa. *Int. J. Pharmacol.*, 15(1), 137–143. <https://doi.org/10.3923/ijp.2019.137.143>
- Asfar, M., & Tawali, A. B. (2019). Ekstraksi albumin ikan gabus (Channa striata) pada titik isoelektriknya. *J Agercolere*, 1(1), 6–12.
- Bates, D. O., & Jones, R. O. P. (2003). The International Journal of Lower Extremity The Role of Vascular Endothelial Growth Factor in Wound Healing. *International Journal of Lower Extremity Wounds*, 2(2), 107–120. <https://doi.org/10.1177/1534734603256626>
- Bazzaz, A., Bukhari, F., Bazzaz, Z., & Chelebi, N. (2013). In vivo assesment of growth promoting activity of a synthetic  $\beta$ -FGF in wound healing of rat's skin. *European Scientific Journal*, 3, 222–239.
- Brem, H., & Tomic-canic, M. (2007). Cellular and molecular basis of wound healing in diabetes. *J Clin Invest*, 117(5), 1219–1222. <https://doi.org/10.1172/JCI32169>
- Cavalcante, G., de Paula, R., de Souza, L., Sousa, F., Mota, M., & Alves, A. (2011). Experimental model of traumatic ulcers in the cheek mucosa of rats. *Acta Cir Bras*, 26(3).
- Chandan, K. Sen, Sashwati, R., & Gordillo, G. (2020). Wound healing. In *Plastic Surgery* (Fourth Edi). Elsevier Inc. <https://doi.org/10.1016/B978-0-323-35694-7.00013-8>
- Cheng, KY., Lin, Z., Cheng, Y., Chiu, H., & Yeh, N. (2018). Wound Healing in Streptozotocin- Induced Diabetic Rats Using Atmospheric-Pressure Argon Plasma Jet. *Nature*, July, 1–15. <https://doi.org/10.1038/s41598-018-30597-1>

Daud, *et al.* (2010) ‘Amino and fatty acid compositions in haruan traditional extract (HTE)’, *Boletin Latinoamericano y Del Caribe de Plantas Medicinales y Aromaticas*, 9(5), p. 414-29.

Dorsett-martin, W. A. (2004). Rat models of skin wound healing : A review. *Wound Rep Reg*, 12, 591–598.

Dwijayanti, D. R., Djati, M. S., Ibrahim, M., & Rifa, M. (2015). The Potential of VipAlbumin ® to Chronic Inflammation in Type 2 Diabetes Mellitus Balb / C Mice Model. *American Journal of Immunology*, 11(2), 56–67.  
<https://doi.org/10.3844/ajisp.2015.56.67>

Fajri, U. N., Hadisaputro, S., & Soejoenoes, A. (2018). The Effect of Snake Fish Extract (*Channa striata*) on Post Cesarean Section Wound Status in Postpartum Anemia Mothers. *Indonesian Journal of Medicine*, 3(2), 84–88.  
<https://doi.org/10.26911/theijmed.2018.03.02.04>

Fatma N., Metusalach, Taslim N. A., *et al.* (2020). Nurimala M. The protein and albumin contents in some species of marine and brackishwater fish of South Sulawesi, Indonesia. *ACCL Bioflux*, 13(4), 1976-84.

Fauzan M.R., Dahlan C. K., Taslim N. A., Syam A. (2020). The effect of giving fish extract (Pujimin Plus) on intake of protein and hemoglobin hypoalbuminemic patients. *Enfermeria clinica*, 30, Suppl4, 452-455. <https://doi.org/10.1016/j.enfcli.2020.03.009>

Filippo, C. Di, Marfella, R., Cuzzocrea, S., Piegari, E., Petronella, P., Giugliano, D., Rossi, F., & Amico, M. D. (2005). Hyperglycemia in Streptozotocin-Induced Diabetic Rat Increases Infarct Size Associated With Low Levels of Myocardial HO-1 During Ischemia/Reperfusion. *American Diabetes Association*, 54(March), 803–809.

Gallagher, K. A., Liu, Z., Xiao, M., Chen, H., Goldstein, L. J., Buerk, D. G., Nedea, A., Thom, S. R., & Velazquez, O. C. (2007). Diabetic impairments in NO-mediated endothelial progenitor cell mobilization and homing are reversed by hyperoxia and SDF-1  $\alpha$ . *J. Clin. Invest*, 117(5), 1249–1259. <https://doi.org/10.1172/JCI29710.blood>

Gibson, R. (1983). Acid and m-3 Polyunsaturated Fatty Acids. *Lipids*, 18(11), 743–752.

Gonzalez, A., Andrade, Z. de A., Costa, T. F., & Medrado, A. (2016). Wound healing - A literature review. *An Bras Dermatol*, 91(5), 614–620. <https://doi.org/10.1590/abd1806-4841.20164741>

Gottrup, F., Ågren, M. S., & Karlsmark, T. (2000). Models for use in wound healing research: A survey focusing on in vitro and in vivo adult soft tissue. *Wound Repair and Regeneration*, 8(2), 83–96. <https://doi.org/10.1046/j.1524-475X.2000.00083.x>

Hendriati, L., Kuncorojakti, S., Widodo, T., Meitasari, H. K., & Prasasti, W. (2019). The Influence of Channa Striata Extract Emulgel on Incision Wound Healing in White Rats. *Trad. Med. J*, 24(3), 210–215. <https://doi.org/10.22146/mot.45080>

IACUC. (2020). *Anesthesia (Guideline) - Vertebrate animal research*. American Association for Laboratory Animal Science. <http://animal.research.uiowa.edu/iacuc-guidelines-anesthesia>

Izzaty, A., Dewi, N., & Pratiwi, DIN. (2014). Ekstrak haruan (Channa striata) secara efektif menurunkan jumlah limfosit fase inflamasi dalam penyembuhan luka. *Dentofasial*, 13(3), 176–181.

Kemeterian Kesehatan RI. (2018). *Infodatin Diabetes*. Pusat Data dan Informasi Kementerian Kesehatan RI.

Kim, M., Liu, W., Borjesson, D. L., Curry, F. E., Miller, L. S., Cheung, A. L., Liu, F., Isseroff, R. R., & Simon, S. I. (2008). Dynamics of Neutrophil Infiltration during Cutaneous Wound Healing and Infection Using Fluorescence Imaging. *Journal of Investigative Dermatology*, 128(7), 1812–1820. <https://doi.org/10.1038/sj.jid.5701223>

King, Aileen J. (2012). The use of animal models in diabetes research. *British Journal of Pharmacology*, 166, 877–894. <https://doi.org/10.1111/j.1476-5381.2012.01911.x>

Kuhlmann, M. et al. (2019) ‘Wound healing characteristics of a novel wound healing ointment in an abrasive wound model: A randomized, intra-individual clinical investigation’, *Wound Medicine*, 24(1), pp. 24–32. doi: 10.1016/j.wndm.2019.02.002.

Lansdown, A. B. G. (2002). Calcium: A potential central regulator in wound healing in the skin. *Wound Repair and Regeneration*, 10(5), 271–285. <https://doi.org/10.1046/j.1524-475X.2002.10502.x>

Laurence D, Bacharach A. (1964). Evaluation of drug activities: pharmacometrics. Volume 1. New York: Academic Press Inc; p. 161.

Lenzen S. The mechanisms of alloxan- and streptozotocin-induced diabetes. *Diabetologia*. 2008;51(2):216–26.

Lin, P. H., Sermersheim, M., Li, H., Lee, P. H. U., Steinberg, S. M., & Ma, J. (2018). Zinc in wound healing modulation. *Nutrients*, 10(1), 1–20. <https://doi.org/10.3390/nu10010016>

Masoko, P., Picard, J., & Eloff, J. N. (2010). The use of a rat model to evaluate the in vivo toxicity and wound healing activity of selected Combretum and Terminalia (Combretaceae) species extracts. *Onderstepoort J. Vet. Res.*, 77(1). <https://doi.org/10.4102/ojvr.v77i1.2>

Mat Jais, A. M. (2007). Pharmacognosy and pharmacology of Haruan (*Channa striatus*), a medicinal fish with wound healing properties. *Boletin Latinoamericano y Del Caribe de Plantas Medicinales y Aromaticas*, 6(3), 52–60.

Mat Jais, A. M. (2008). Antifungal activity of *Channa striatus* (haruan) crude extracts. *Int J Trop Med*, 3, 43–48.

Mogford, J., & Mustoe, T. (2001). Experimental models of wound healing. In V. Falanga (Ed.), *Cutaneous wound healing* (pp. 109–122). Martin Dunitz.

Mohammadpour, M., Behjati, M., Sadeghi, A., & Fassihi, A. (2013). Wound healing by topical application of antioxidant iron chelators: kojic acid and deferiprone. *Int Wound J*, 10, 260–264. <https://doi.org/10.1111/j.1742-481X.2012.00971.x>

National Research Council. (1995). Nutrient Requirements of Laboratory Animals. Subcommittee on Laboratory Animal Nutrition, Committee on Animal Nutrition, Board

on Agriculture, National Research Council. In *The Quarterly Review of Biology* (4th ed., Vol. 70, Issue 4). <https://doi.org/10.1086/419223>

Oentaryo, G., & Soesilawati, P. (2016). Acceleration of fibroblast number and FGF-2 expression using Channa striata extract induction during wound healing process : in vivo studies in wistar rats. *Dental Journal*, 49(56), 125–132.  
<https://doi.org/10.20473/j.djmkg.v49.i3.p125-132>

Olczyk, P., Mencner, L., & Komosinska-Vassev, K. (2014). The Role of the extracellular matrix components in cutaneous wound healing. *BioMed Research International*, 2014, 1–8.

Oskeitzian, C. A. (2012). Mast Cells and Wound Healing. In *Advances in Wound Care* (Vol. 1, Issue 1). <https://doi.org/10.1089/wound.2011.0357>

Prestes, M. A., Ribas, C., Filho, J., & Martindale, Robert, et al. (2012). Wound healing using ionic silver dressing and nonocrystalline silver dressing in rats. *Acta Cirúrgica Brasileira*, 27(11), 761–766. <https://doi.org/10.1590/S0102-86502012001100004>

Rahman, M., Molla, M., Shaikh, M., & Chowdhury, S. (2018). SF Journal of Biotechnology and Biomedical Engineering Snakehead Fish ( Channa striata ) and Its Biochemical. *Journal of Biotechnology and Biomedical Engineering*, 1(1), 1–5.

Ravikanth, M., Soujanya, P., Manjunath, K., Saraswathi, T. R., & Ramachandran, C. R. (2011). Heterogeneity of fibroblasts. *Journal of Oral and Maxillofacial Pathology*, 15(2), 247–250. <https://doi.org/10.4103/0973-029X.84516>

Razzaghi, R., Pidar, F., Momen-Heravi, M., Bahmani, F., Akbari, H., & Asemi, Z. (2018). Magnesium Supplementation and the Effects on Wound Healing and Metabolic Status in Patients with Diabetic Foot Ulcer: a Randomized, Double-Blind, Placebo-Controlled Trial. *Biological Trace Element Research*, 181(2), 207–215.  
<https://doi.org/10.1007/s12011-017-1056-5>

Said, S., Taslim, N. A., & Bahar, B. (2016). Gizi dan Penyembuhan Luka: Hubungan IMT dan kadar albumin berhubungan dengan penyembuhan luka. *Jurnal Keperawatan Padjajaran*, 4(n1), 60-9. <http://repository.unhas.ac.id/gizidanpenyembuhanluka.pdf%0A>

Setiawan, M. R., Dewi, N., & Oktaviyanti, I. K. (2015). Extract of haruan (*Channa striata*) increases neocapillaries count in wound healing process. *Dentofasial*, 14(1), 1–5.

Schultz, G., Moldawer, L., & Diegelmann, R. (2011). Principles of wound healing. In R. Fitridge & M. Thompson (Eds.), *Mechanisms of vascular disease*. University of Adelaide Press. <https://doi.org/10.1017/UPO9781922064004.024>

Shafri, M., & Mat Jais, A. M. (2012). Therapeutic Potential of the Haruan ( *Channa striatus* ): From Food to Medicinal Uses. *Mal J Nutr*, 18(1), 125–136.

Shakya, S., Wang, Y., Mack, J. A., & Maytin, E. V. (2015). *Hyperglycemia-Induced Changes in Hyaluronan Contribute to Impaired Skin Wound Healing in Diabetes : Review and Perspective*. 2015.

Siswanto, A., Dewi, N., & Hayatie, L. (2016). Effect of haruan ( *channa striata* ) extract on fibroblast cells count in wound healing. *J Dentomaxillofac Sci*, 1(2), 1–6.  
<https://doi.org/10.15562/jdmfs.v1i2.3>

Smith, J., & Mangkoewidjojo, S. (1998). *Pemeliharaan, Pembibitan, dan Penggunaan Hewan Percobaan di Indonesia*. Media Penelitian dan Pengembangan Kesehatan.

Srinivasan, K., & Ramarao, P. (2007). Animal models in type 2 diabetes research : An overview. *Indian J Med Res*, 125(2007), 451–472.

Stojadinovic, O., Brem, H., Fallon, J., Stallcup, M., & Merchant, A. (2005). Molecular Pathogenesis of Chronic Wounds : The Role of  $\beta$ -Catenin and c-myc in the Inhibition of epithelialization and wound healing. *American Journal of Pathology*, 7(1), 59–67.

Taslim N A., Healthy Hidayanty, Nurhaedar Jafar. (2006). Pengaruh pemberian kapsul konsentrat ikan gabus pada pasien pasca bedah di RSU Wahidin Sudirohusodo Makassar. Makassar.

Taslim NA. Nilai tambah ikan gabus [Internet]. (2009) Jun 4 [cited 2016 June 1]. Available from : <http://bukantokohindonesia.blogspot.com/2009/06/nurpudji-astuti>

Taslim NA *et al.* (2005). Laporan Penelitian Ikan Gabus. Pusat Penelitian Pangan, Gizi dan Kesehatan Unhas. Makassar

Taslim, N.A. *et al.* (2011). Produk Konsentrat Protein Ikan Gabus sebagai suplemen makanan sumber albumin.(Protein-Concentrate Product from Snake Fish and the Use as Albumin-Source Food Supplement). ID P0027593 B. 16 Februari 2011

Wijaya I., Taslim N. A., Natzir R., Aman M., Hatta M., *et al.* (2020). Molecular and immunological mechanisms of Channa striata in diabetic wound. International Journal of Pharmaceutical Research, 13(1). <https://doi.org/10.31838/ijpr/2020.SP2.046>

Wilgus, T. A., Roy, S., & McDaniel, J. C. (2013). *Neutrophils and Wound Repair : Positive Actions and Negative Reactions* (Vol. 2, Issue 7).  
<https://doi.org/10.1089/wound.2012.0383>

Wright, J. A., Richards, T., & Srai, S. K. S. (2014). The role of iron in the skin and cutaneous wound healing. *Frontiers in Pharmacology*, 5 JUL(July), 1–8.  
<https://doi.org/10.3389/fphar.2014.00156>

Zuraini, A., Somchit, M., Solihah, M., & Al, E. (2006). Fatty acid and amino acid composition of three local Malaysian Channa spp. *Fish Food Chem*, 97, 674–678.

**LAMPIRAN SURAT ETIK PENELITIAN, HASIL & FOTO KEGIATAN**



KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN  
UNIVERSITAS HASANUDDIN FAKULTAS KEDOKTERAN

KOMITE ETIK PENELITIAN KESEHATAN

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, M.Med., Ph.D., Sp.GK TELP. 081241850858, 0411 5780103, Fax : 0411-581431



### **REKOMENDASI PERSETUJUAN ETIK**

Nomor : 209/UN4.6.4.5.31 / PP36/ 2021

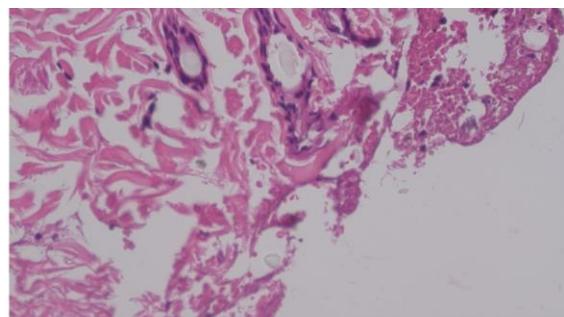
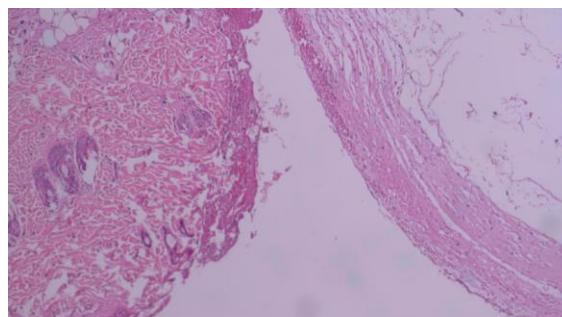
Tanggal: 31 Maret 2021

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

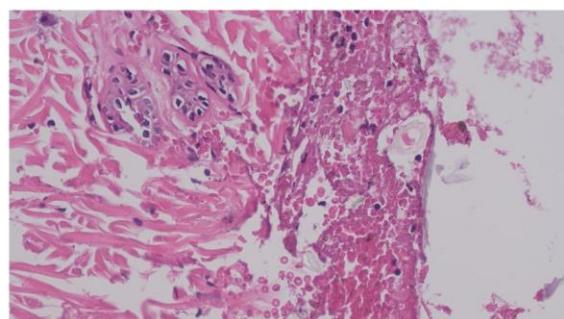
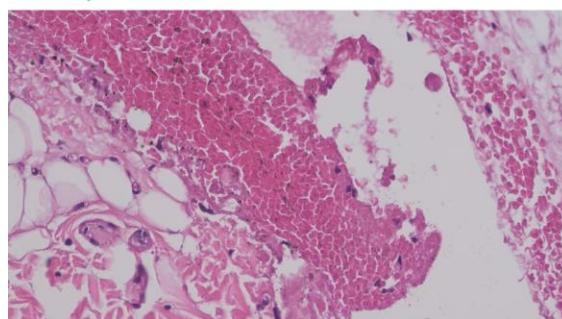
No Protokol	UH20080368	No Sponsor Protokol	
Peneliti Utama	<b>Prof.Dr.dr. Nurpudji Astuti, MPH</b>	Sponsor	
Judul Peneliti	Efek ekstrak Channa striata (ikan gabus) terhadap proses penyembuhan luka akut pada tikus hiperglikemia yang di induksi streptozocin (Analisis terhadap Neutrophil Lymphocyte Ratio (NLR) , Albumin, dan Jaringan Luka).		
No Versi Protokol	2	Tanggal Versi	30 Maret 2021
No Versi PSP		Tanggal Versi	
Tempat Penelitian	<b>Laboprtorium Hewan Fakultas Kedokteran Universitas Hasanuddin Makassar</b>		
Jenis Review	<input type="checkbox"/> Exempted <input checked="" type="checkbox"/> Expedited <input type="checkbox"/> Fullboard Tanggal	Masa Berlaku <b>31 Maret 2021</b> sampai <b>31 Maret 2022</b>	Frekuensi review lanjutan
Ketua Komisi Etik Penelitian Kesehatan FKUH	Nama <b>Prof.Dr.dr. Suryani As'ad, M.Sc.,Sp.GK (K)</b>	Tanda tangan 	
Sekretaris Komisi Etik Penelitian Kesehatan FKUH	Nama <b>dr. Agussalim Bukhari, M.Med., Ph.D., Sp.GK (K)</b>	Tanda tangan 	

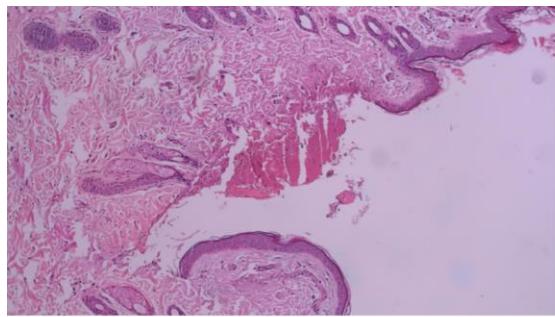
Kewajiban Peneliti Utama:

- Menyerahkan Amandemen Protokol untuk persetujuan sebelum di implementasikan
- Menyerahkan Laporan SAE ke Komisi Etik dalam 24 Jam dan dilengkapi dalam 7 hari dan Lapor 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 protokol yang disetujui (protocol deviation / violation)
- Mematuhi semua peraturan yang ditentukan

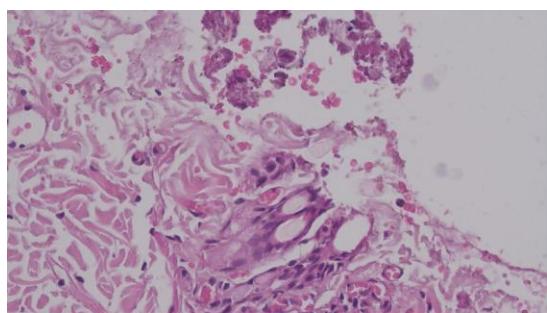
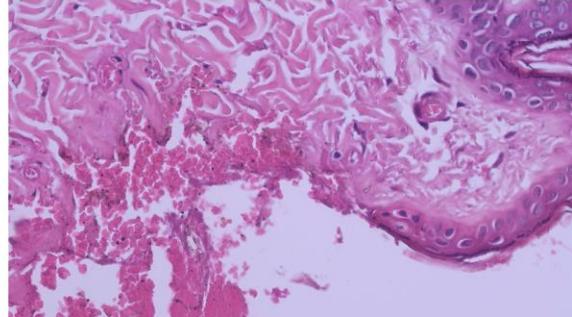
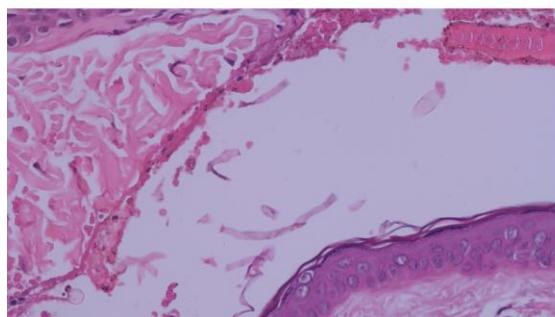
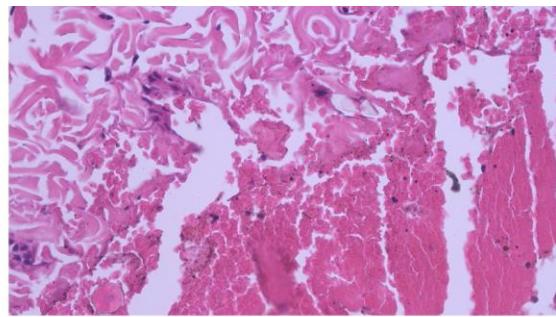


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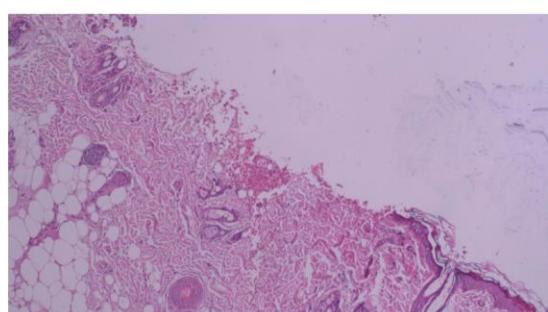
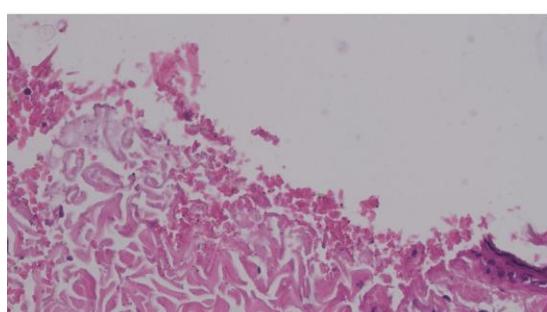
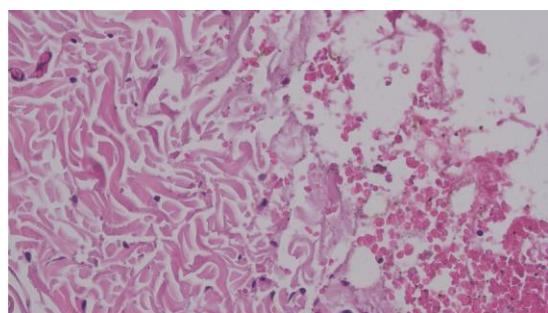


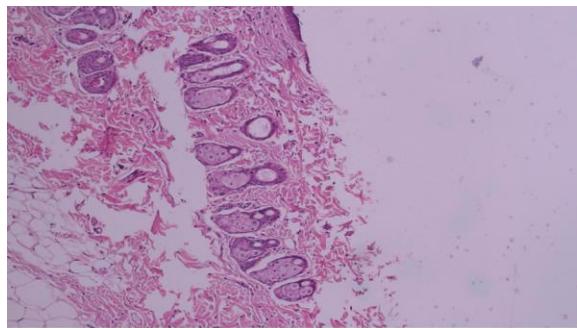


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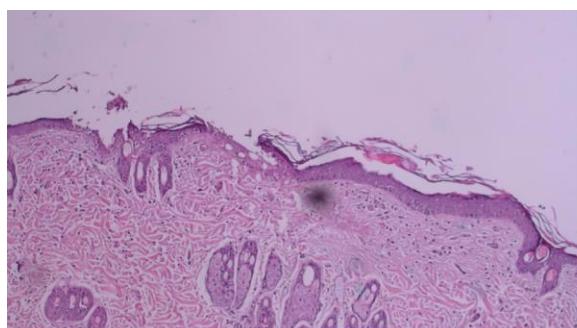
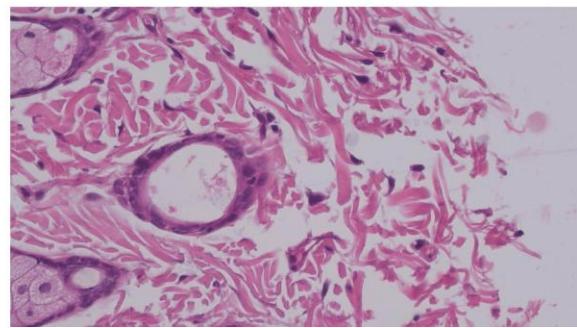
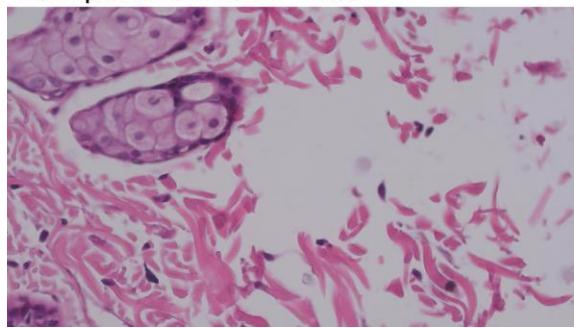
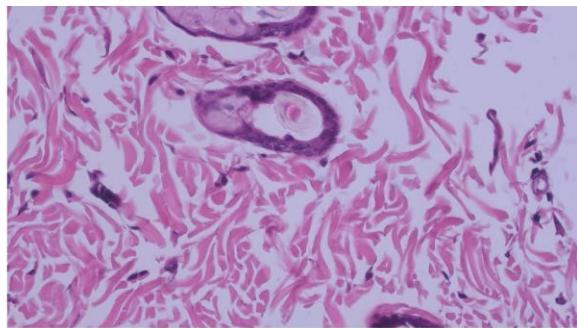


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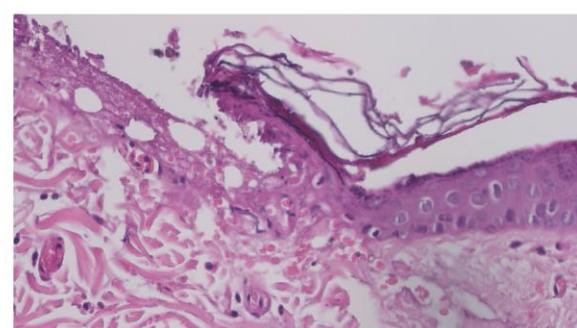
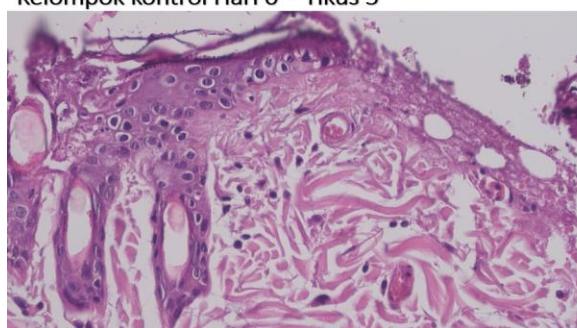
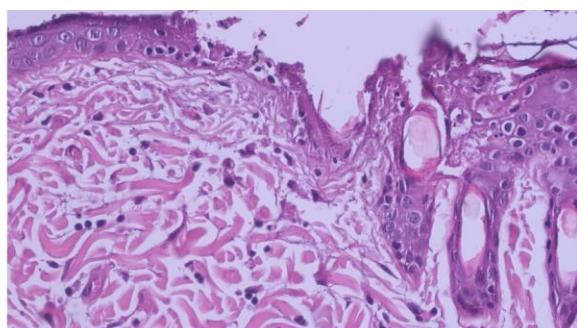


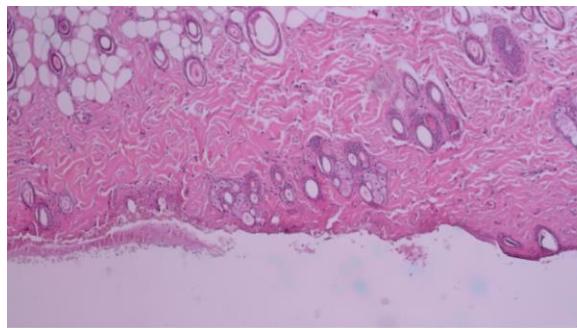


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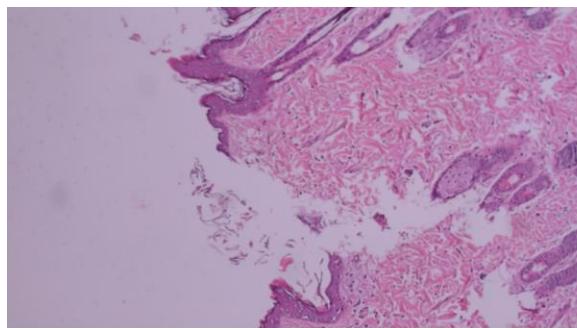
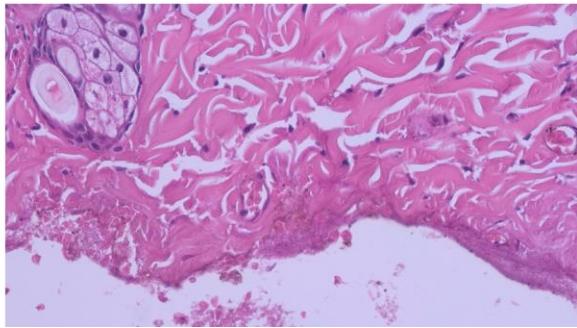
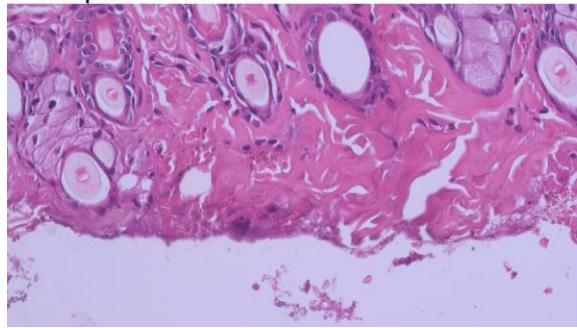
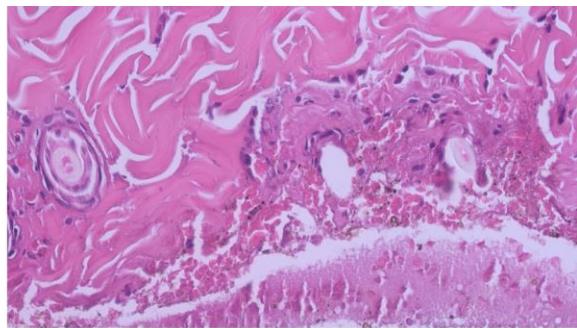


Kelompok kontrol Hari 0 – Tikus 5

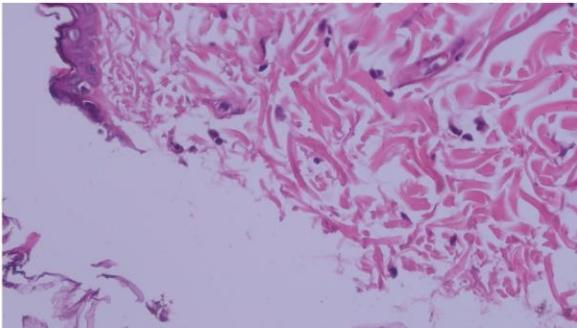
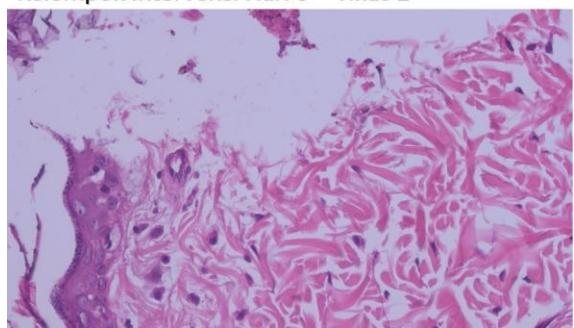
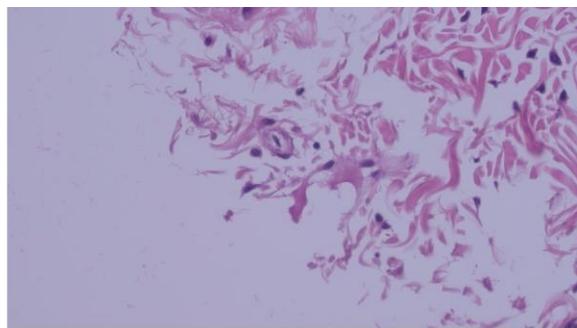


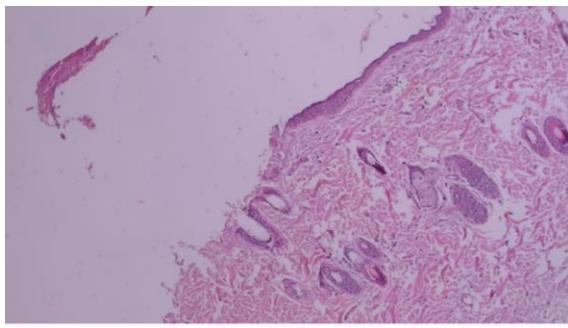


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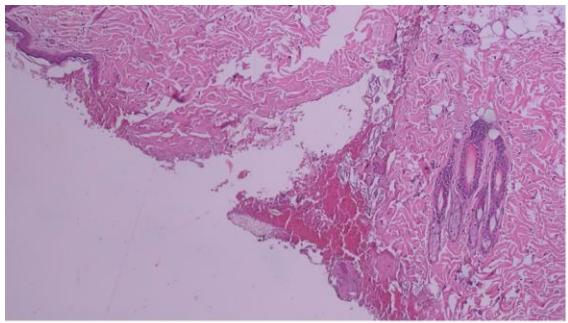
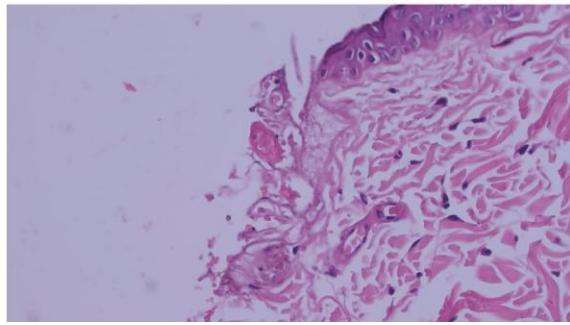
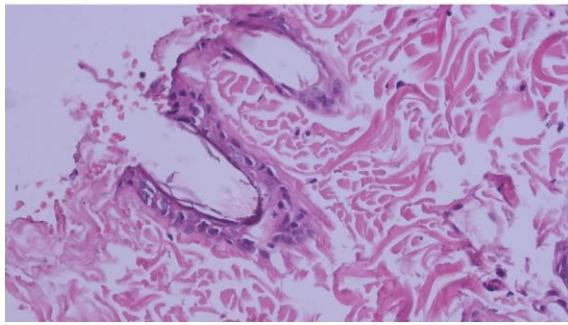
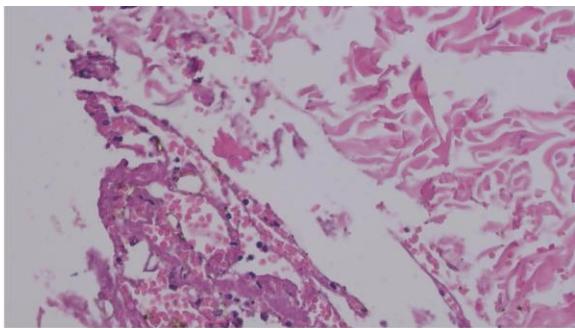


Kelompok Intervensi Hari 0 – Tikus 2

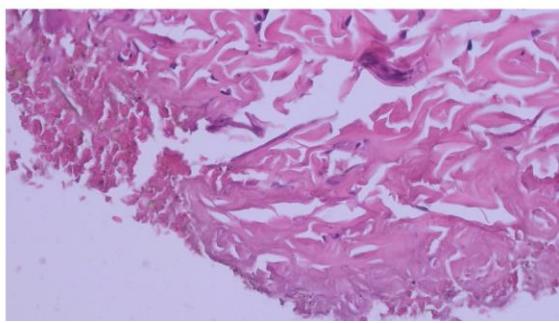
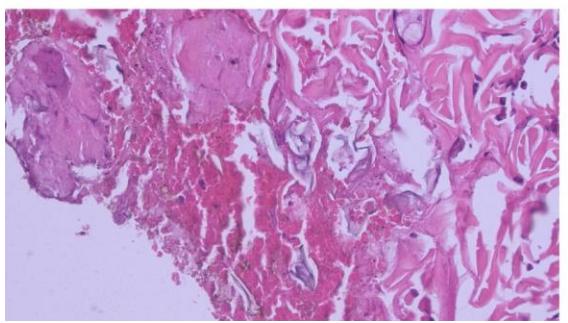
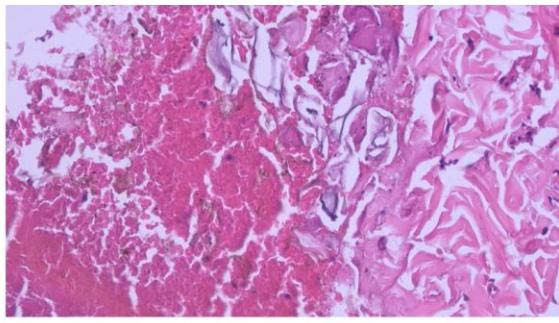


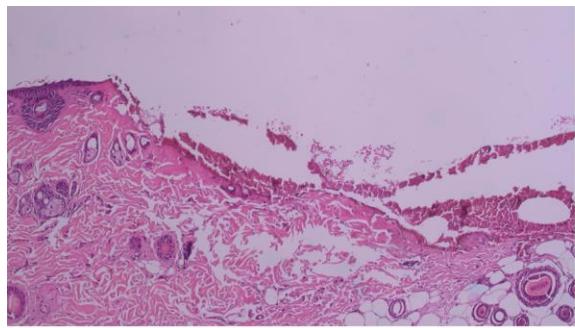


Kelompok Intervensi Hari 0 – Tikus 3

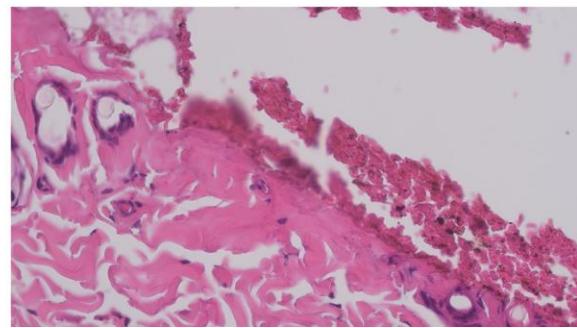
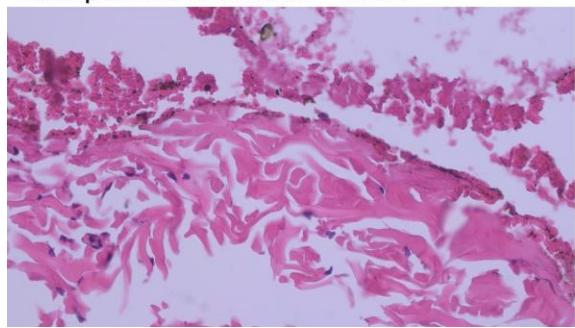
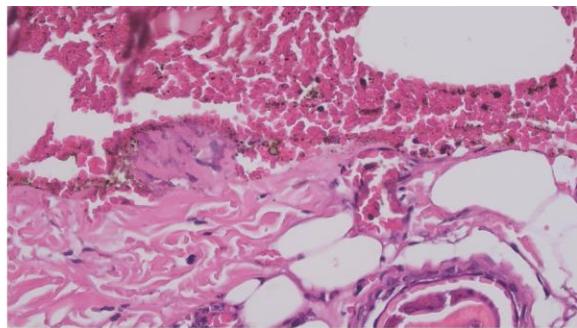


Kelompok Intervensi Hari 0 – Tikus 4

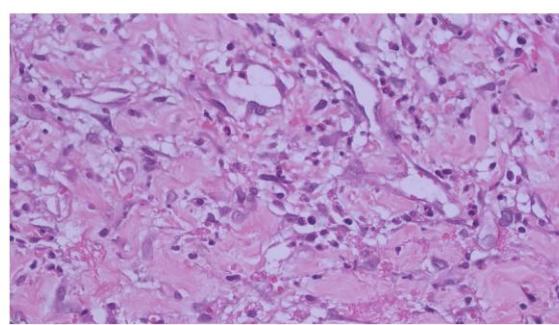
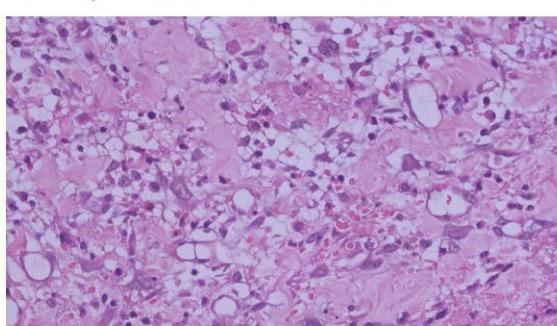
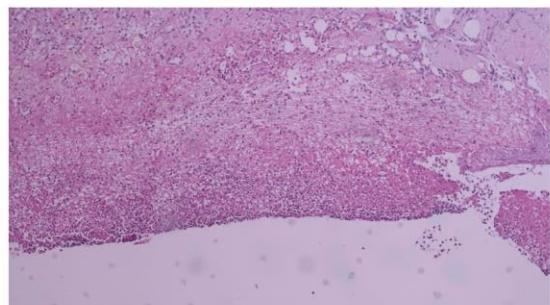


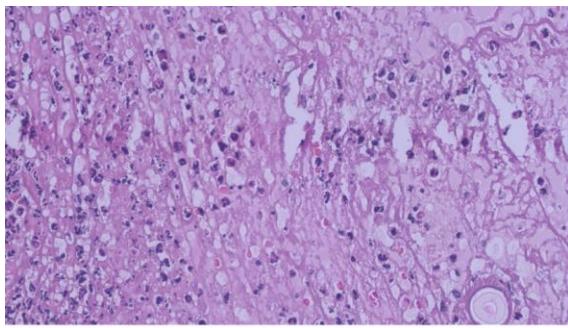


Kelompok Intervensi Hari 0 – Tikus 5

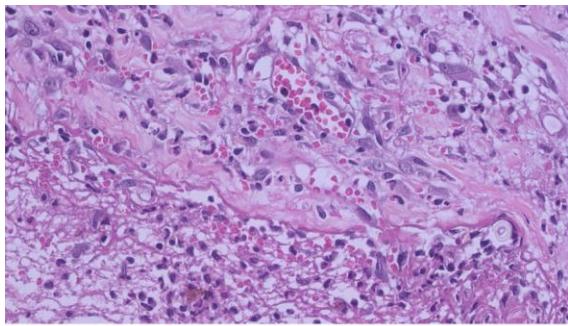
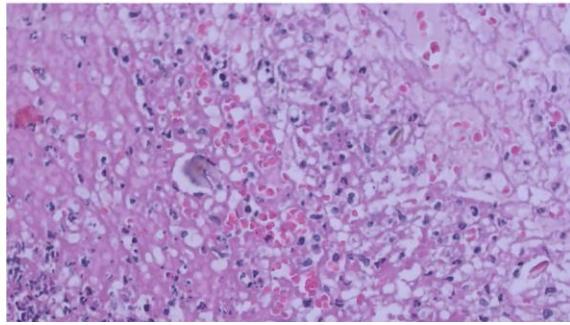
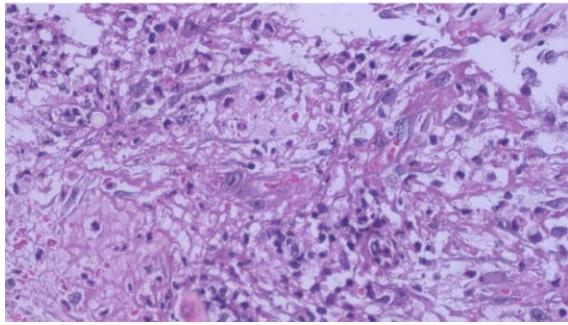
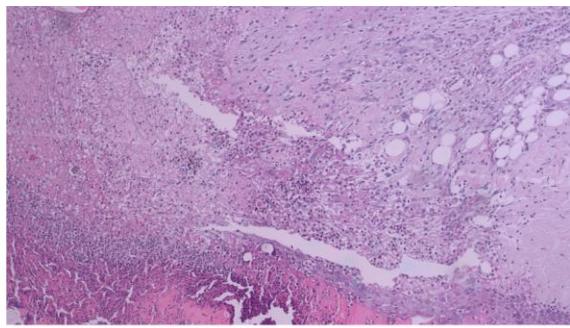


Kelompok Kontrol Hari 3 – Tikus 1

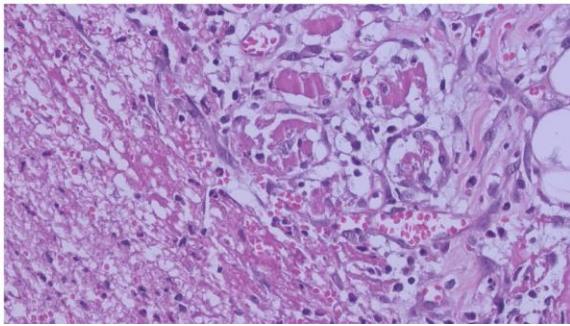
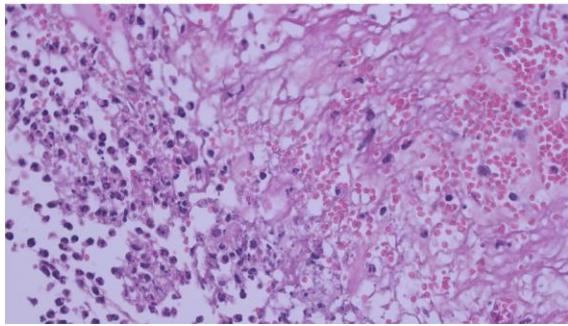
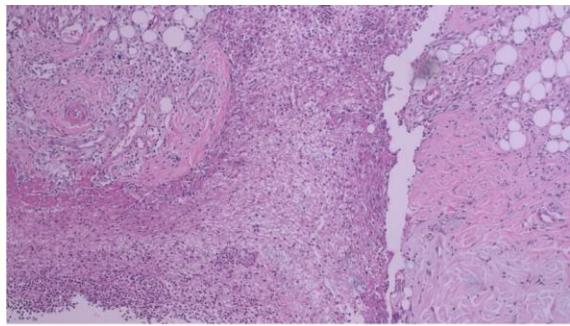


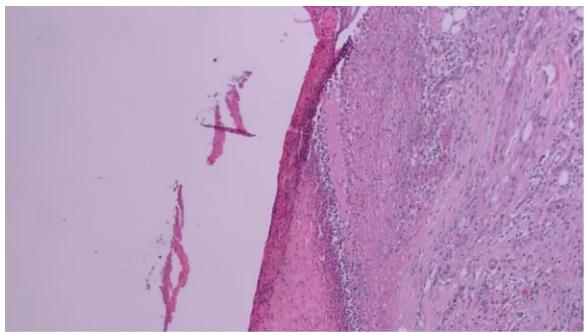


Kelompok Kontrol Hari 3 – Tikus 2

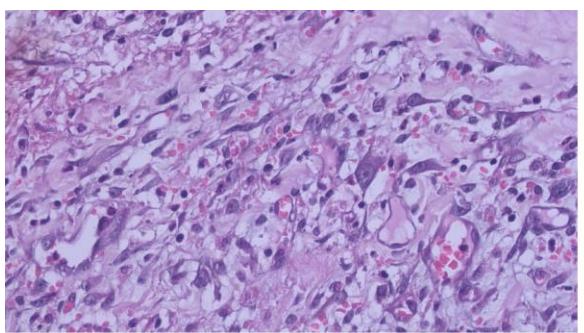
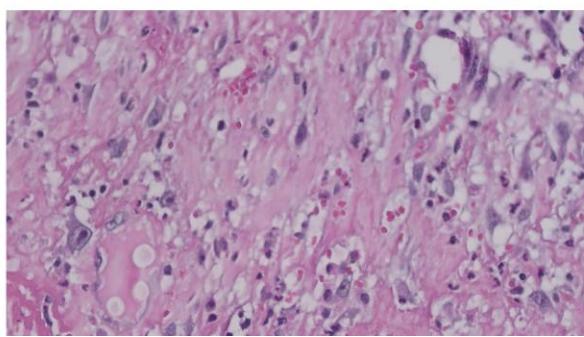
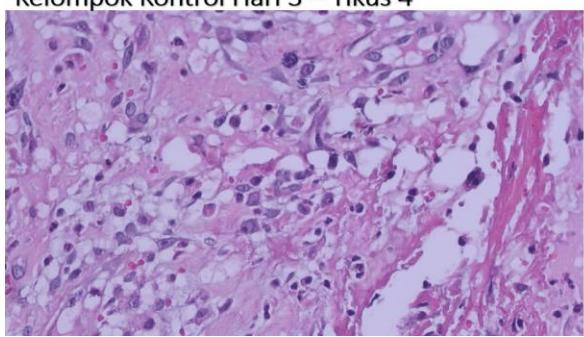
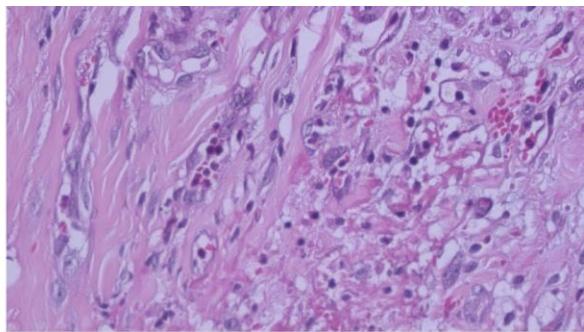


Kelompok Kontrol Hari 3 – Tikus 3

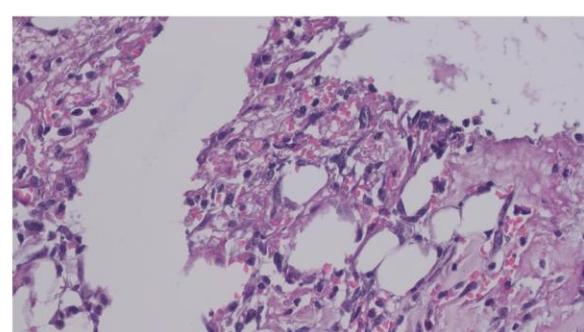
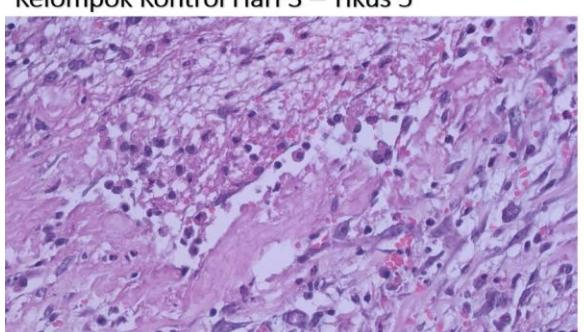
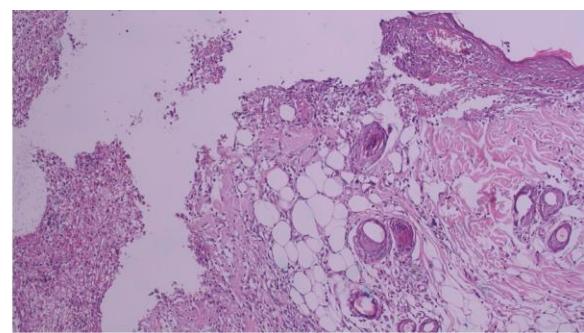


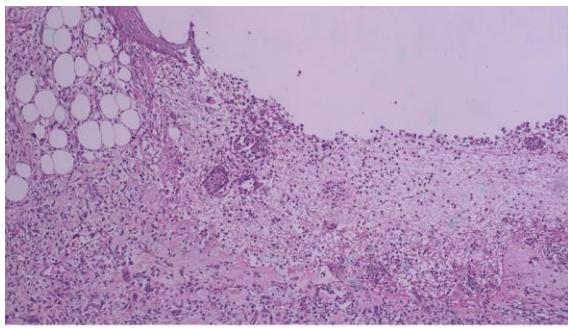


Kelompok Kontrol Hari 3 – Tikus 4

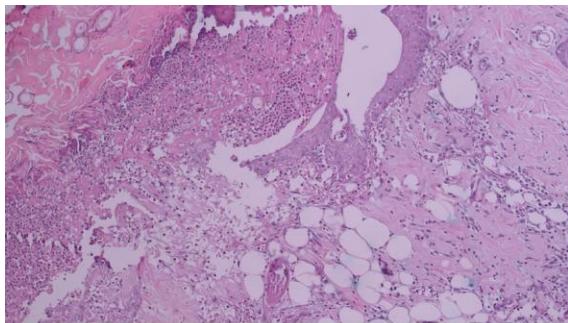
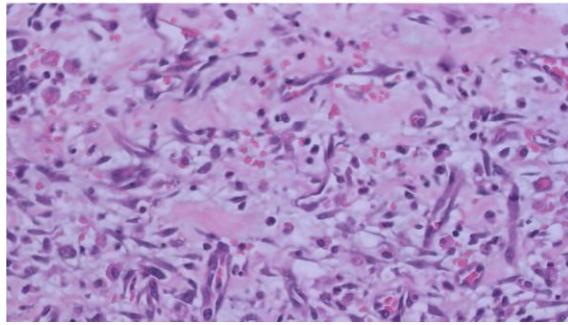
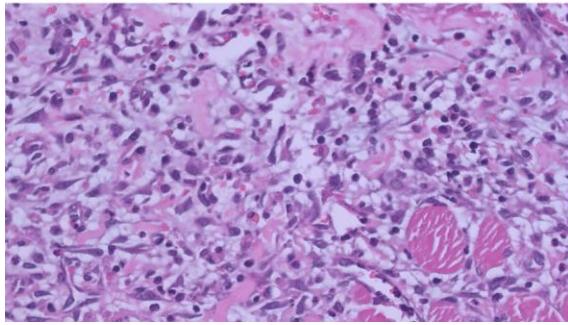
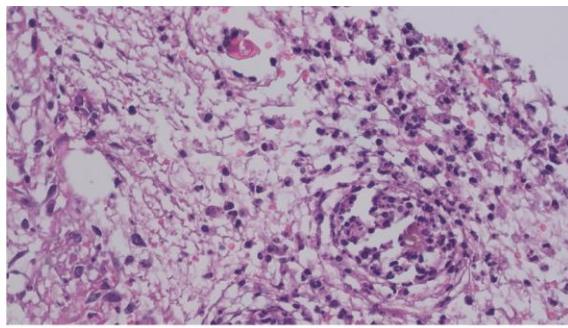


Kelompok Kontrol Hari 3 – Tikus 5

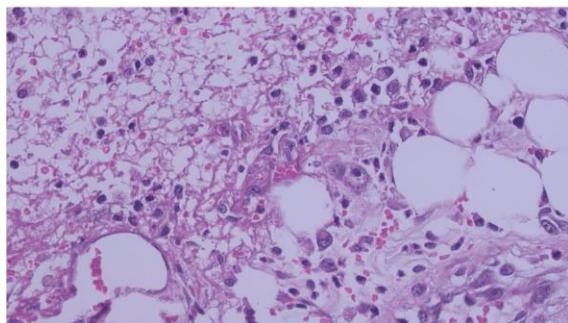
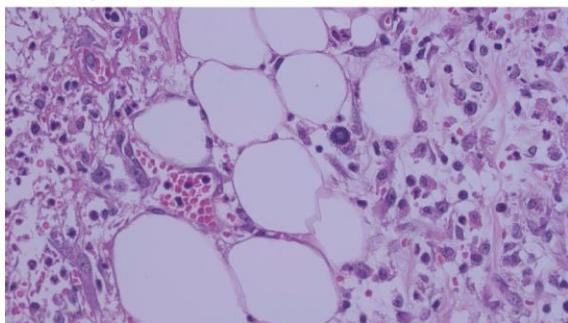
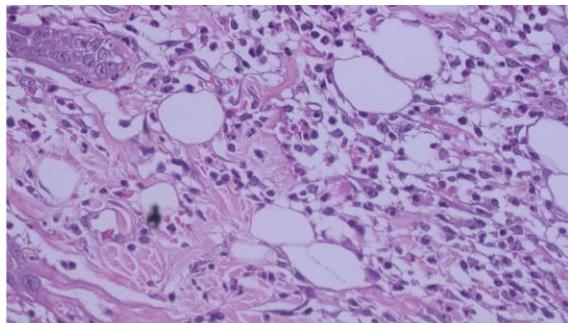


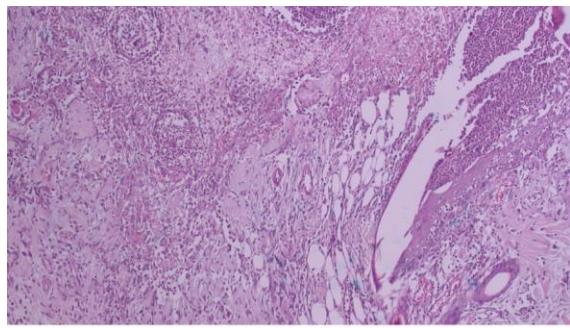


Kelompok Intervensi Hari 3 – Tikus 1

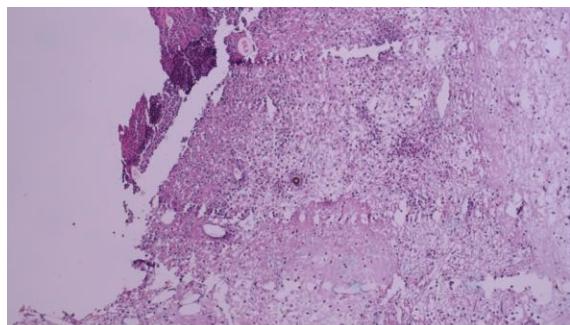
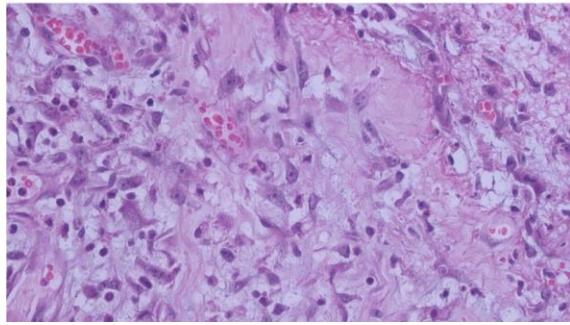
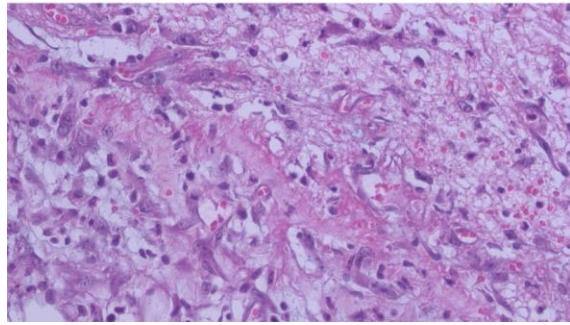
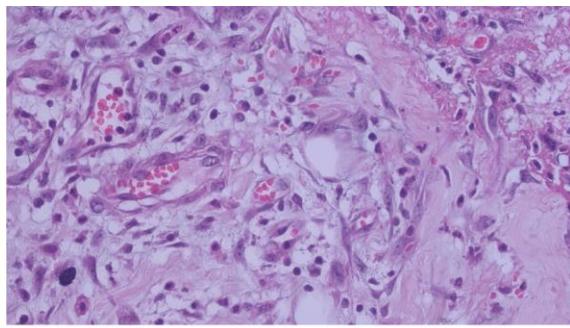


Kelompok Intervensi Hari 3 – Tikus 2

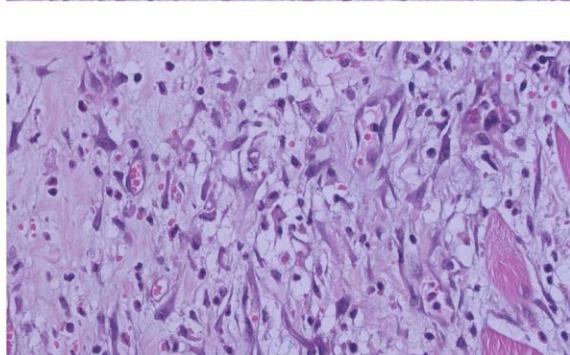
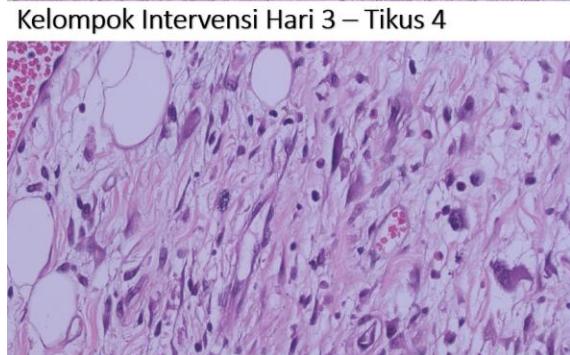
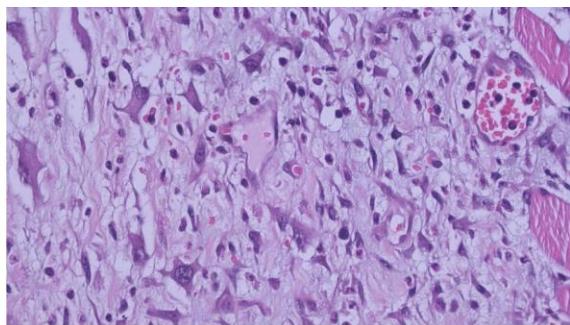


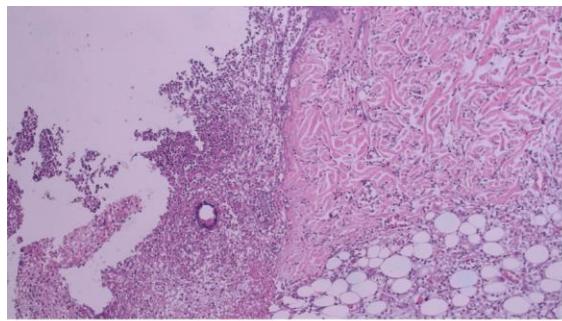


Kelompok Intervensi Hari 3 – Tikus 3

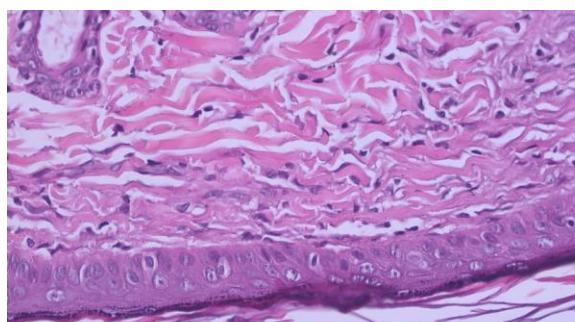
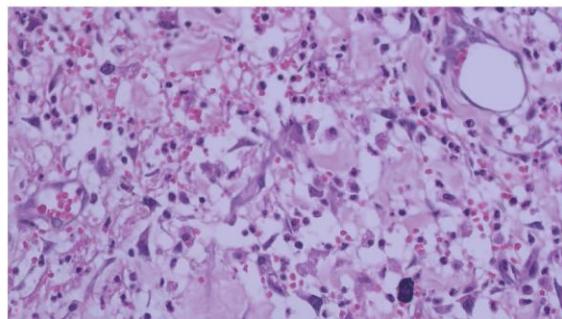
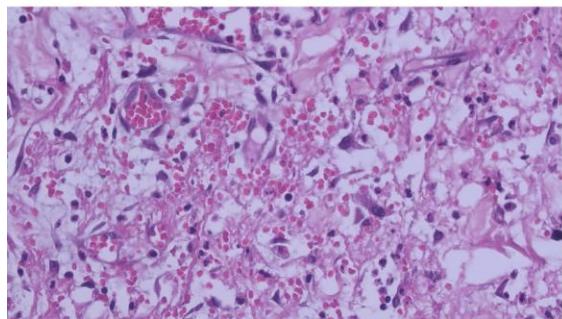
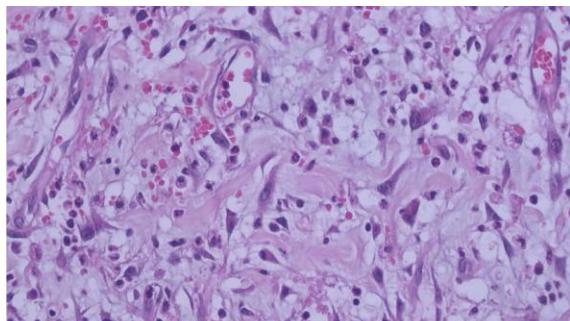


Kelompok Intervensi Hari 3 – Tikus 4

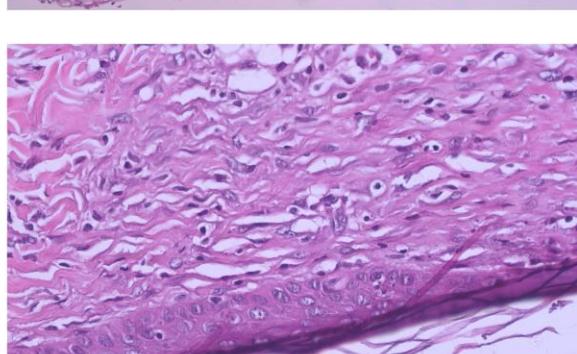
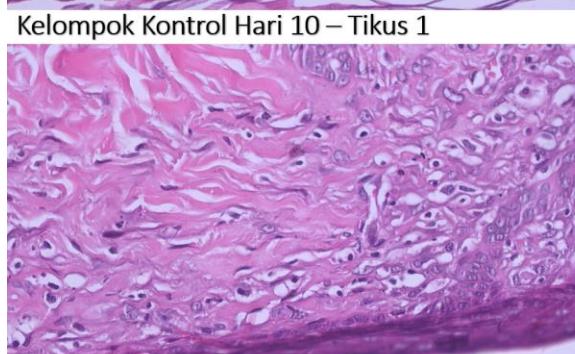
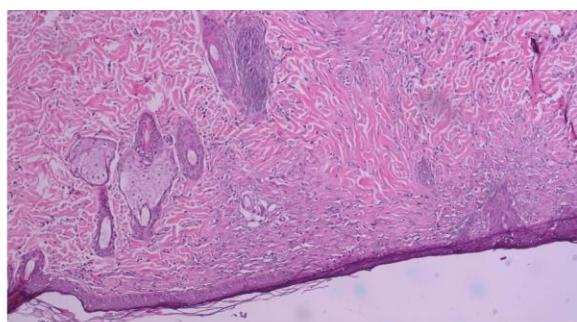


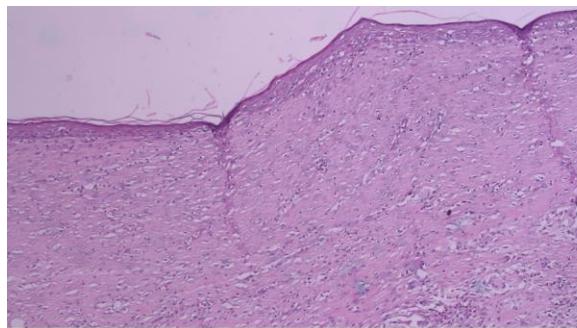


Kelompok Intervensi Hari 3 – Tikus 5

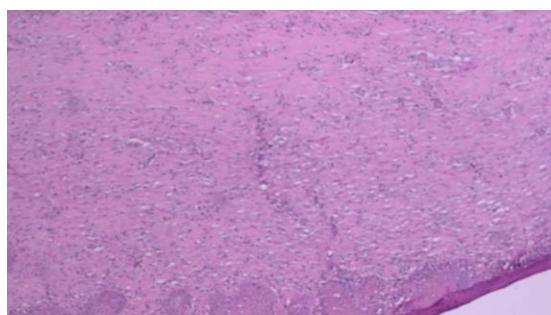
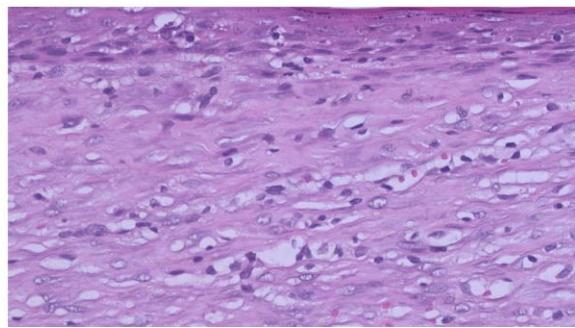
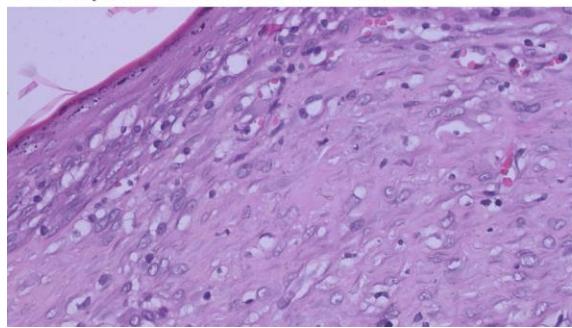
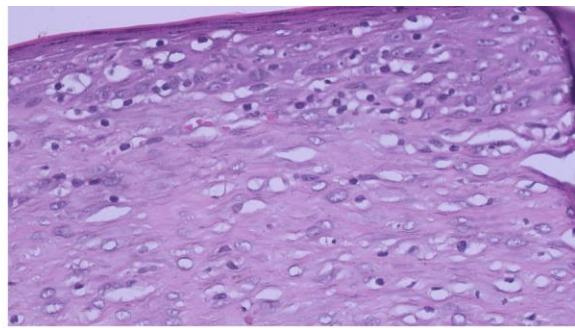


Kelompok Kontrol Hari 10 – Tikus 1

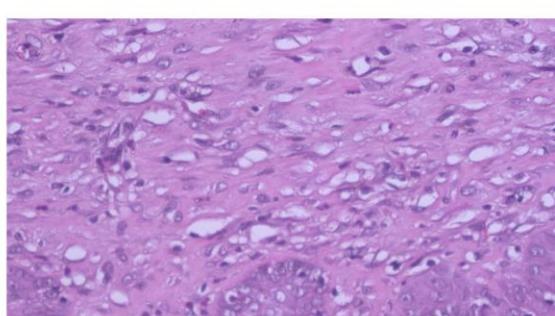
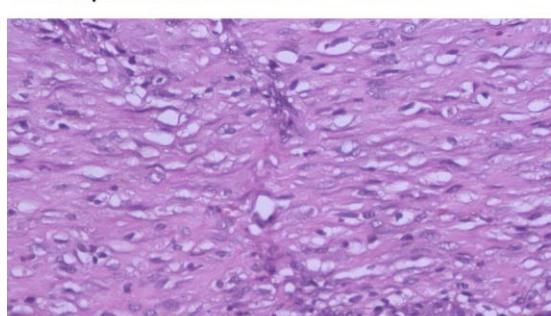
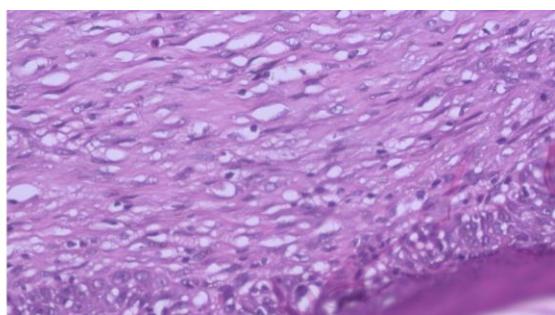


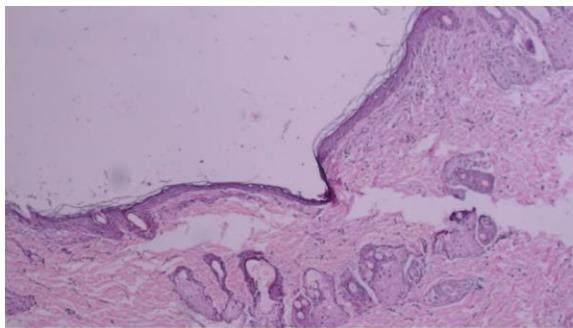


Kelompok Kontrol Hari 10 – Tikus 2

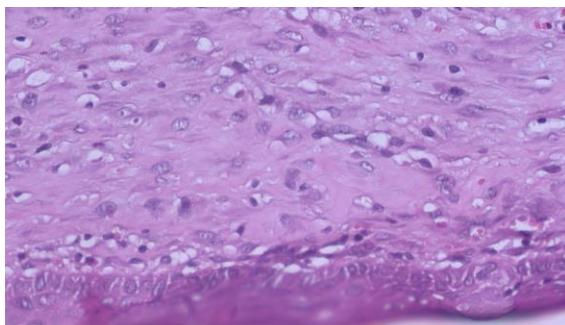
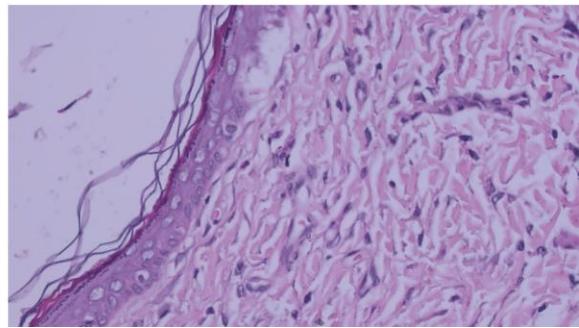
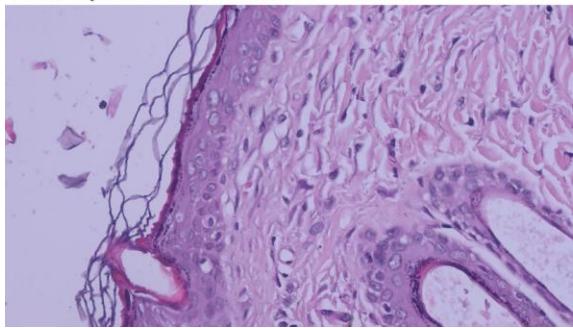
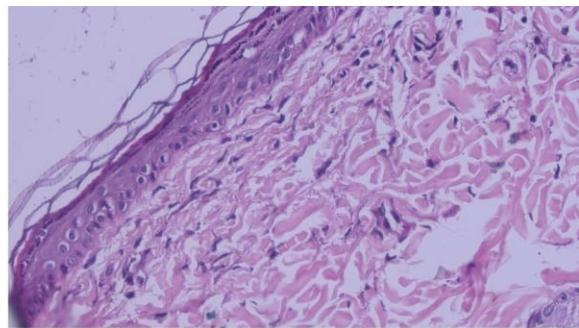


Kelompok Kontrol Hari 10 – Tikus 3

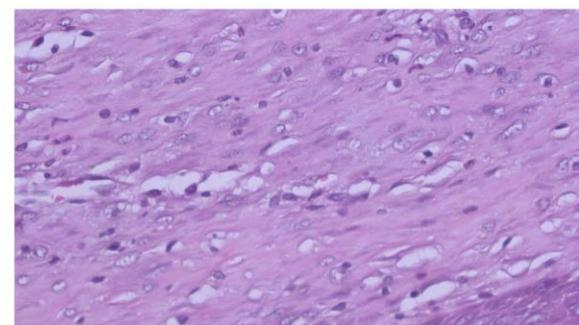
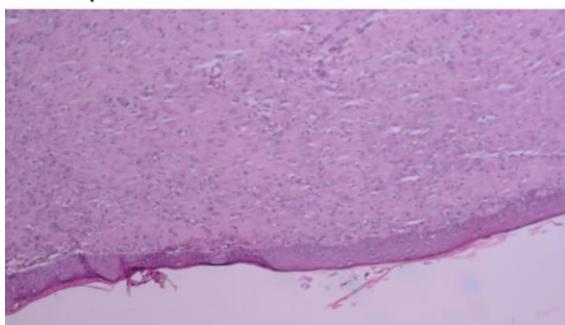
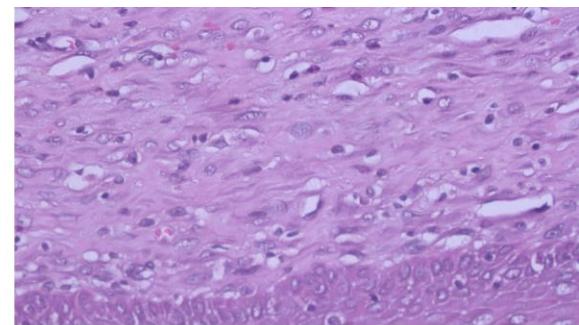


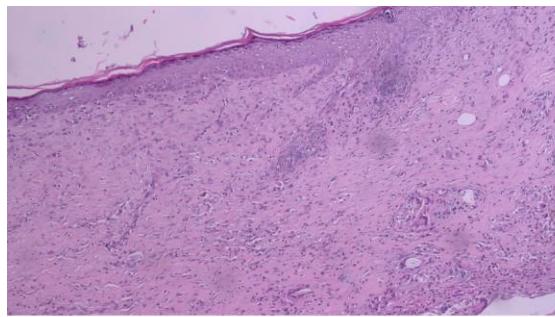


Kelompok Kontrol Hari 10 – Tikus 4

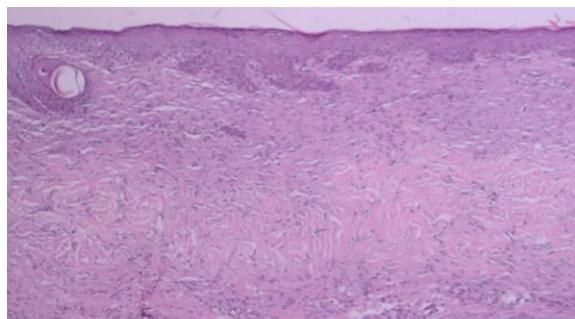
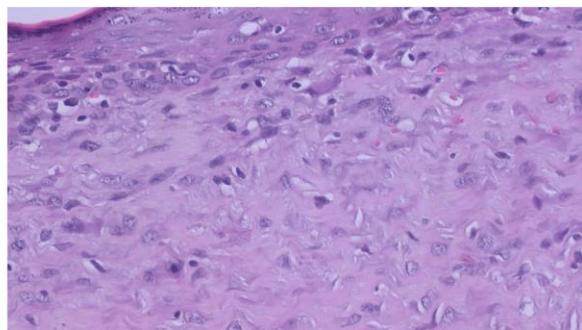
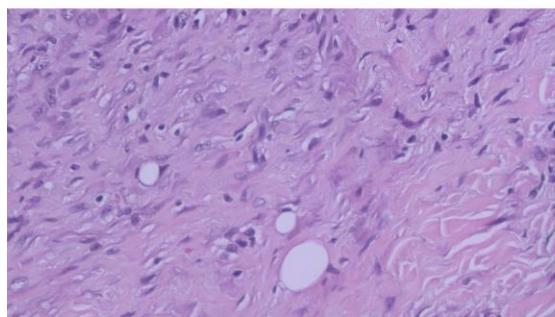


Kelompok Intervensi Hari 10 – Tikus 1

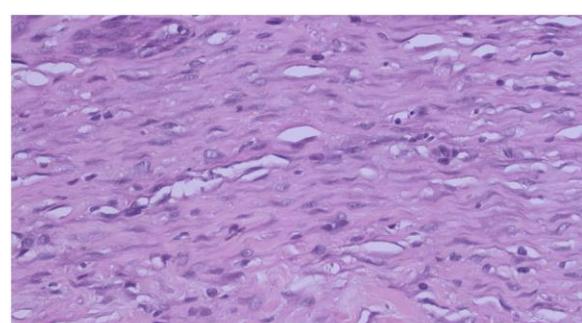
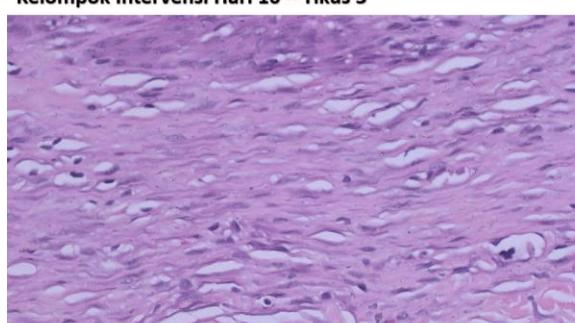
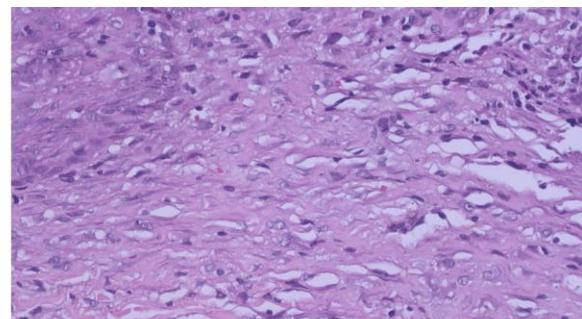


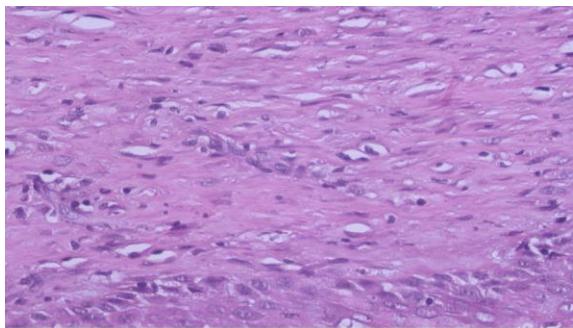


Kelompok Intervensi Hari 10 – Tikus 2

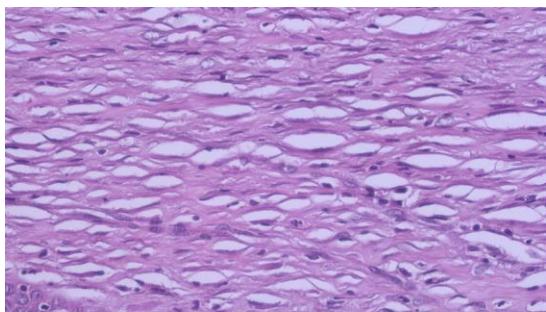
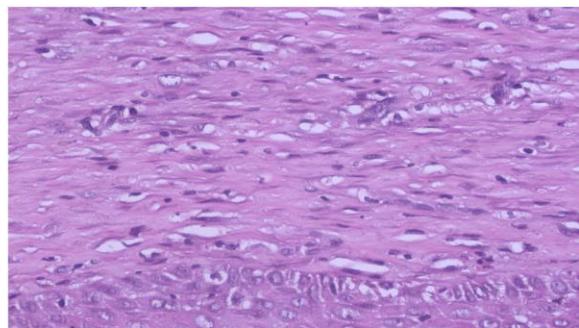
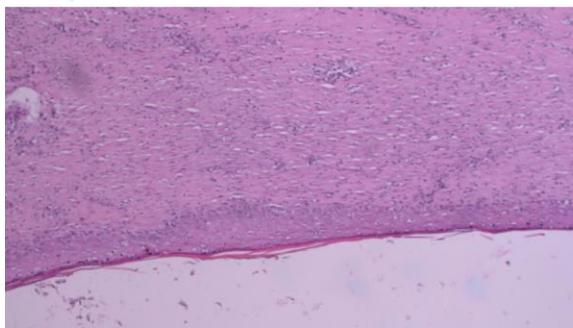


Kelompok Intervensi Hari 10 – Tikus 3

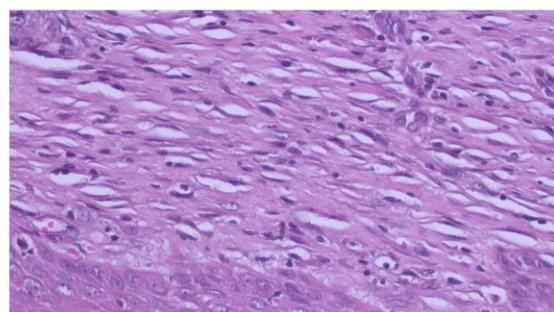
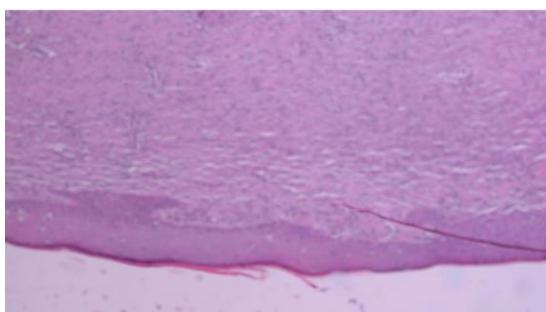




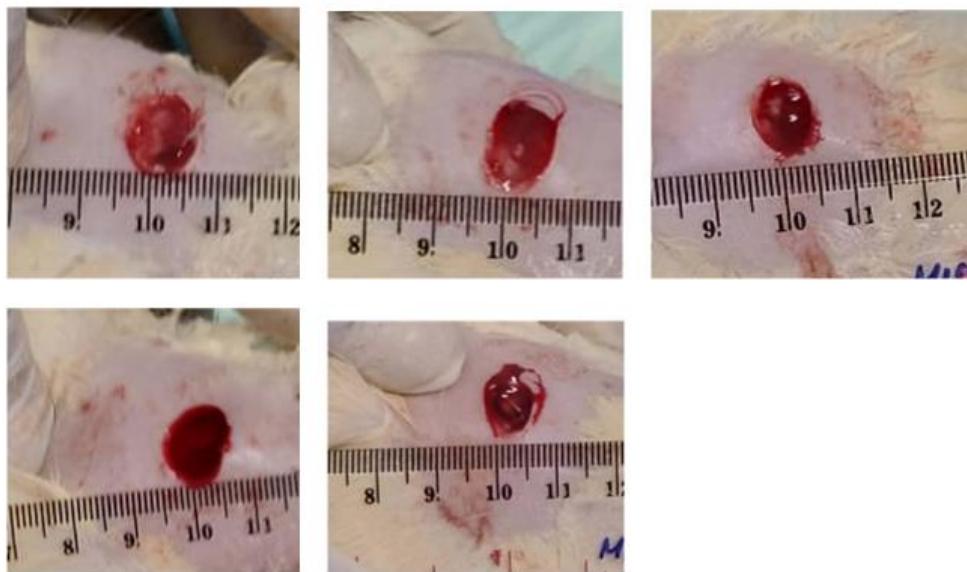
Kelompok Intervensi Hari 10 – Tikus 4



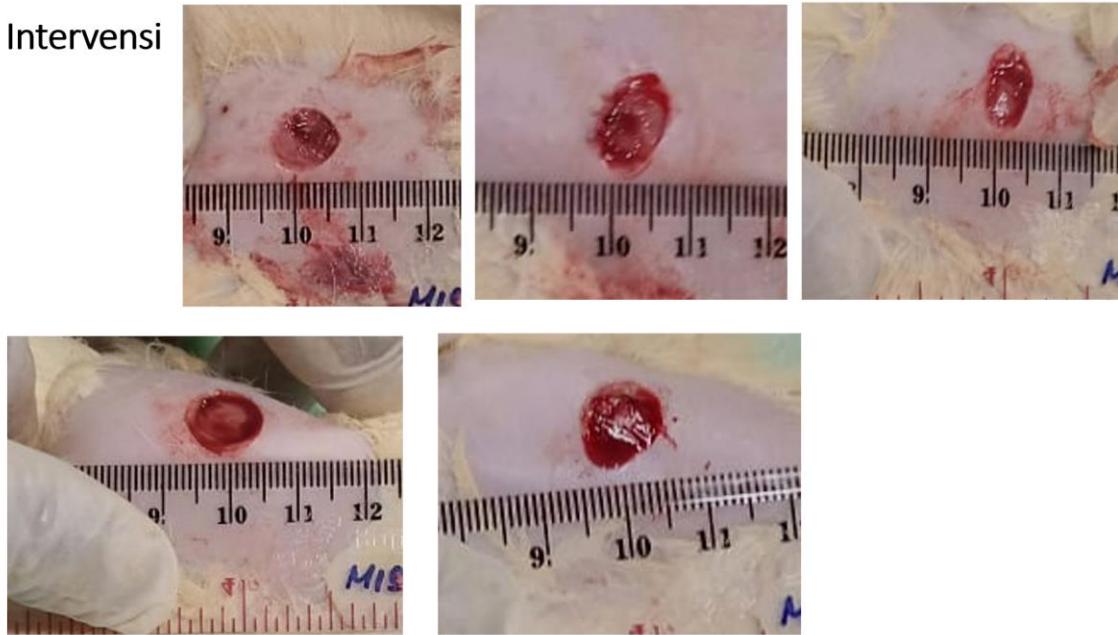
Kelompok Intervensi Hari 10 – Tikus 5



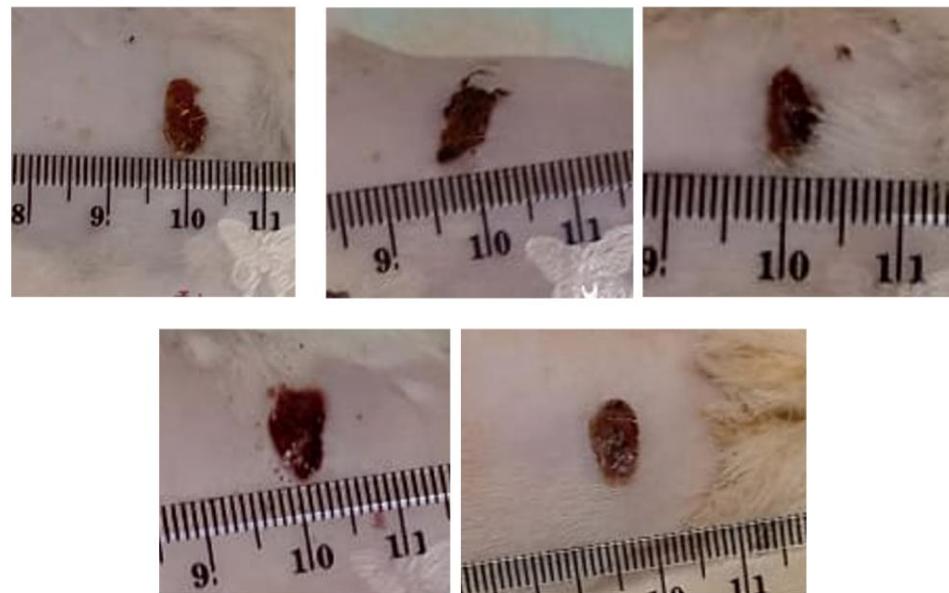
H0 Kontrol



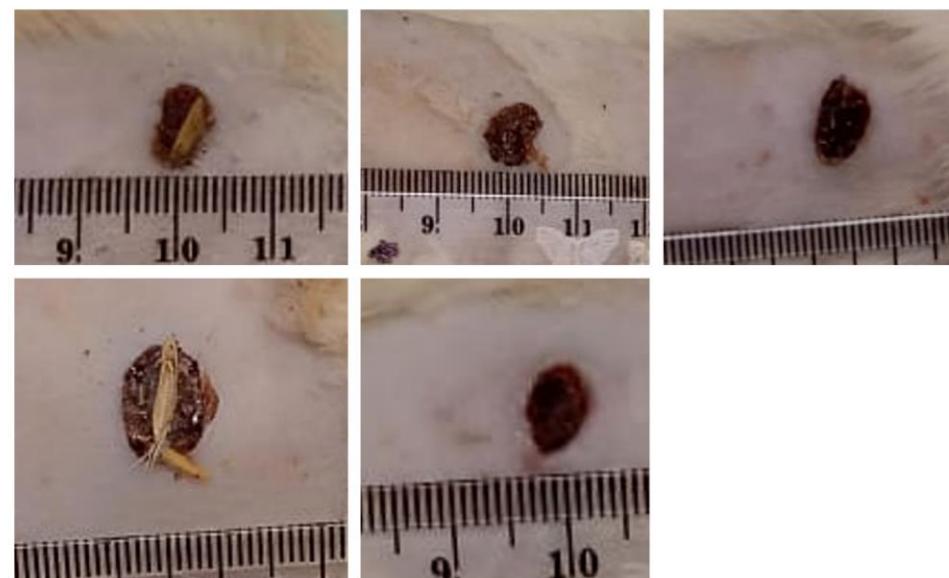
H0 Intervensi



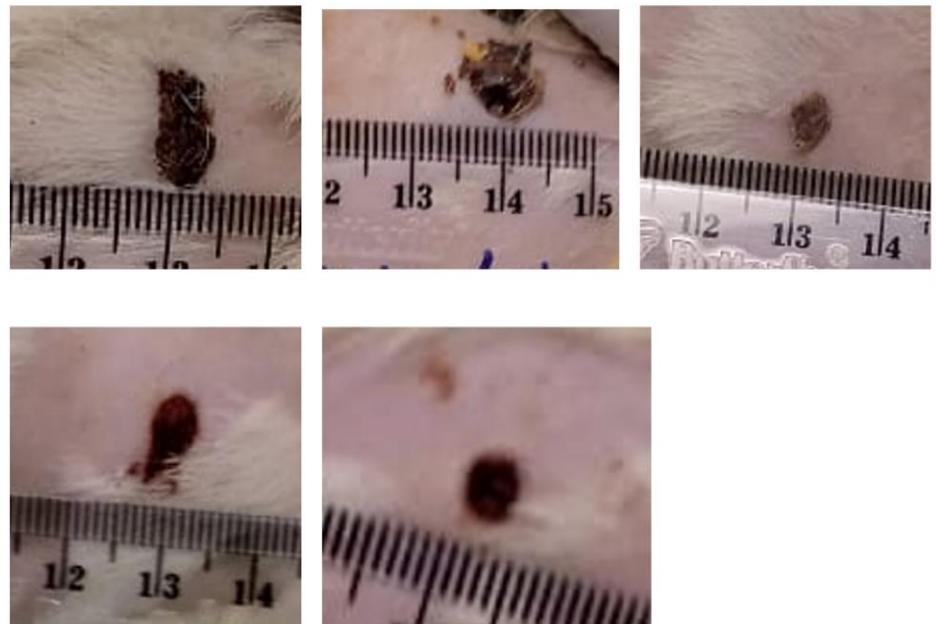
H3 Kontrol



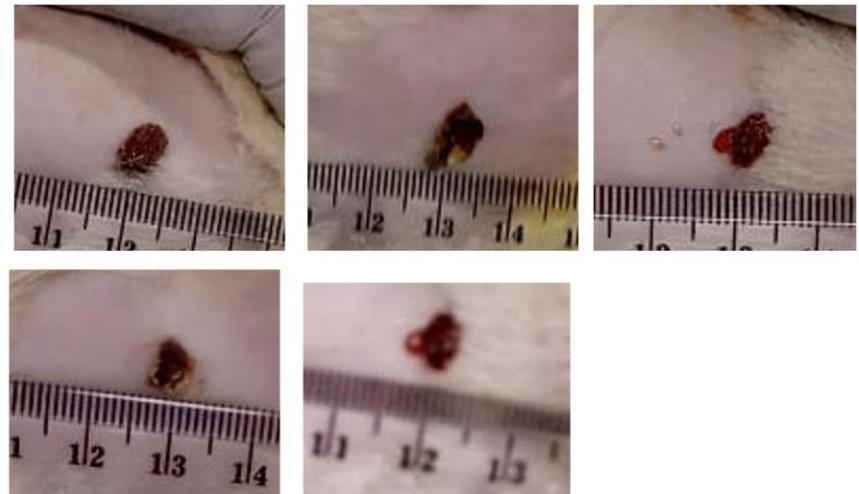
H3 Intervensi



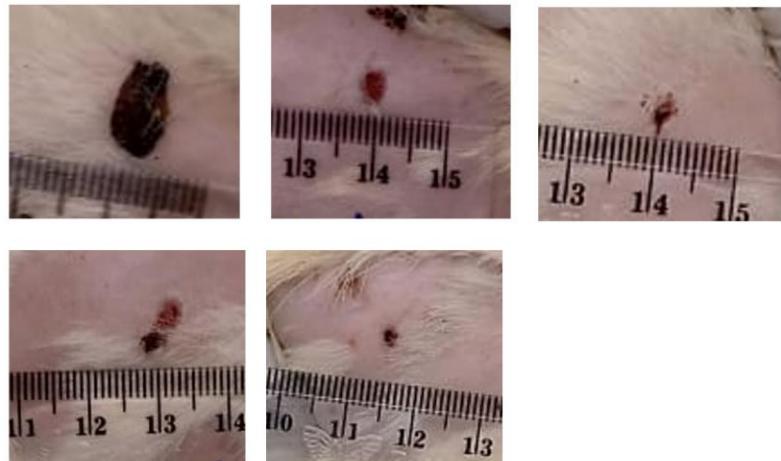
H5 Kontrol



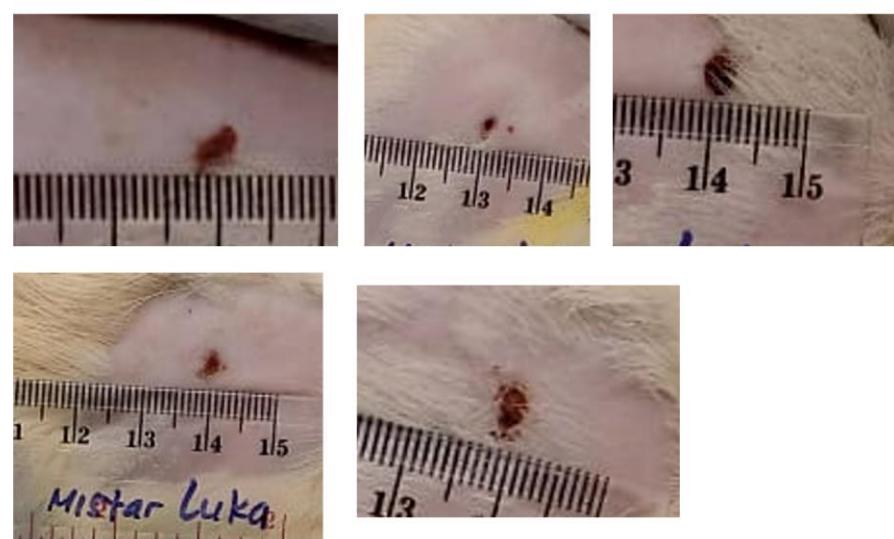
H5 Intervensi



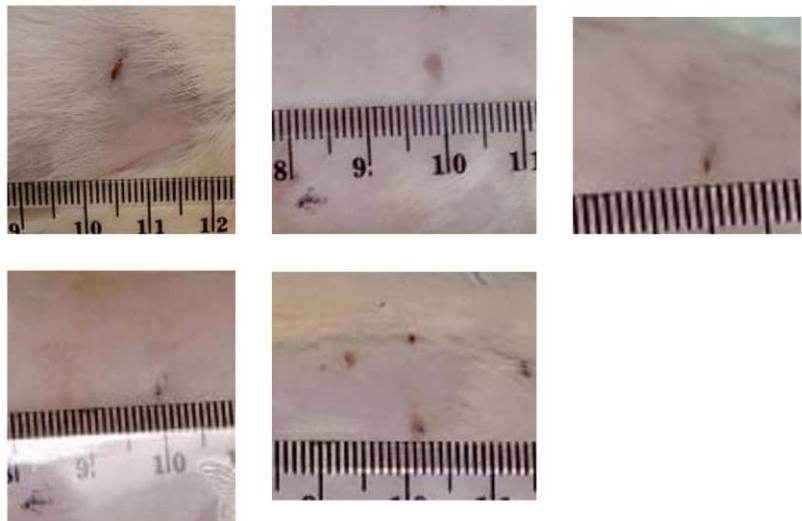
H7 Kontrol



H7 Intervensi



H10 Kontrol



H10 Intervensi

