

## BAB 5

### KESIMPULAN DAN SARAN

#### 5.1 Kesimpulan

Berdasarkan kajian pustaka dari 10 jurnal ilmiah terkait efektivitas dan efek samping penggunaan asetosal pada penderita penyakit jantung koroner dapat disimpulkan bahwa :

1. Asetosal (1x75-150mg) per oral kurang efektif digunakan sebagai terapi primer maupun sekunder penghambatan platelet yang ditunjukkan parameter resistensi asetosal (*AA*)-induced aggregation dengan nilai  $\geq 20\%$  sebanyak 23% partisipan, adenosine diphosphate (*ADP*)-induced aggregation  $\geq 70\%$  sebanyak 24,72%, serta *Aspirin Reaction Unit* (ARU) dengan nilai  $\geq 550$  IU sebanyak 30,35% partisipan. Asetosal (1x300mg) per oral efektif digunakan sebagai terapi primer maupun sekunder yang ditunjukkan dengan parameter resistensi asetosal *Aspirin Reaction Unit* (ARU) dengan nilai  $< 550$  IU sebanyak 100% partisipan.
2. Asetosal (1x75-300mg) per oral pada jangka panjang ( $> 1$  tahun) meningkatkan efek samping berupa perdarahan *gastrointestinal tract* yang terjadi pada 2,13% partisipan.

#### 5.2 Saran

1. Perlu dilaksanakan kajian pustaka dengan memperluas database yang digunakan sehingga jurnal ilmiah yang digunakan dapat semakin banyak untuk mendapatkan kesimpulan lebih objektif mengenai efektivitas dan efek samping penggunaan asetosal pada penderita penyakit jantung koroner.

2. Perlu dilaksanakan penelitian selanjutnya dengan melakukan perbandingan kejadian efek samping asetosal pada pasien dengan resistensi asetosal vs pasien yang masih sensitif asetosal.

## DAFTAR PUSTAKA

- Aberg, J.A., Lacy, C., Armstrong, L., Goldman, M. and Lance, L.L. 2009. *Drug Information Handbook 17th Edition*, American Pharmacist Association.
- Anderson, K., and Smith, K. 2019. 'Anticoagulants and Antiplatelet Agents' in Whalen, K., Feild, C., & Radhakrishnan, R. *Lippincott's Illustrated Reviews Pharmacology Seventh Edition*. Lippincott Williams & Wilkins. Philadelphia. pp 21.
- Baha, M. R., Ozdol, C., Gulec, S., & Erol, C. 2016. Assessment of efficacy of single dose acetylsalicylic acid over a 24-hour period. *Turkish Society of Cardiology*. **43(5)**: pp 443-449.
- Benowitz, N. 2012. 'Antihypertensive Drug' in Katzung, B. *Basic and Clinical Pharmacology Twelveth Edition*. McGraw-Hill Education. New York. pp 169.
- Bouget, J., Balusson, F., Viglino, D., Roy, P. M., Lacut, K., Pavageau, L., & Oger, E. 2020. Major bleeding risk and mortality associated with antiplatelet drugs in real-world clinical practice. A prospective cohort study. *Journal Plos One*. **15(8)**: pp 1-8.
- Brayfield, A. 2014. *Martindale The Complete Drug Reference 38th*. Pharmaceutical Press. London.
- Centers for Disease Control and Prevention. 2019. Diakses pada tanggal 4 Januari 2022. [https://www.cdc.gov/heartdisease/coronary\\_ad.htm](https://www.cdc.gov/heartdisease/coronary_ad.htm)
- Chairani, N. 2015. Intervensi Keperawatan Pada Pasien Penyakit Kardiovaskular yang Melaksanakan Latihan Aktivitas Fisik Rehabilitasi Jantung Fase I (Inpatient). *Jurnal BIMIKI*. **3(2)**:pp 43-50.
- Chisholm-Burns, M. A. 2016. *Pharmacotherapy Principles & Practice Fourth Edition*. McGraw-Hill Education. New York.
- DiDomenico, R. J. 2020. 'Acute Coronary Syndrome' in J. T. Dipiro. *Pharmacotherapy Handbook Eleventh Edition*. McGraw-Hill Education. New York. pp 33.

- Dixon, D., and Riche, D. 2020. 'Dislipidemia' in J. T. Dipiro. *Pharmacotherapy Handbook* Eleventh Edition. McGraw-Hill Education. New York. pp 31.
- Du, G., Lin, Q., & Wang, J. 2016. A Brief Review on the Mechanisms of Aspirin Resistance. *International Journal of Cardiology*. **220**: pp 21-26.
- Duzenli, M. A., Ozdemir, K., Aygul, N., Soylu, A., & Tokac, M. 2008. Comparison of increased aspirin dose versus combined aspirin plus clopidogrel therapy in patients with diabetes mellitus and coronary heart disease and impaired antiplatelet response to low-dose aspirin. *The American Journal of Cardiology*. **102(4)**: pp 396-400.
- Doroszko, A., Krupska, E. S., & Janus, A. 2015. Endothelial dysfunction in young healthy men is associated with aspirin resistance. *Vascul Pharmacol*. **67-69**: pp 30-37.
- Eikelboom, J. 2017. Rivaroxaban With or Without Aspirin in Stable Cardiovascular Disease. *The New england Journal of Medicine*. **377(14)**: pp 1320-1329.
- Gao, Z. 2019. Gender Differences in Cardiovascular Disease. *Medicine in Novel Technology and Devices*. **4(10025)**: 2-4.
- Gengo, F., Westphal, E. S., Rainka, M. M., Janda, M., Robson, M. J., & Hourihane, J. M. 2016. Platelet response to increased aspirin dose in patients with persistent platelet aggregation while treated with aspirin 81 mg. *Journal Clinical Pharmacology*. **56(4)**: 414-21.
- Guo, J., Wang, J., & Feng, J. 2019. Aspirin resistance mediated by oxidative stress-induced. *Journal of Clinical Pharmacy and Therapeutic*. **44(5)**: pp 823-828.
- Han, Y. 2016. Aspirin Resistance in Coronary Heart Disease: Current Understandings and Strategies. *Journal of Translational Internal Medicine*. **4(1)**: pp 7-10.
- Homorodi, N., Kovacs, E. G., Lee, S., Katona, E., Shemirani A. H., Haramura, G., Balogh, L., Bereczky, Z., Szoke, G., Kiss, R. G., Edes, I., & Muszbek, L. 2016. The lack of aspirin resistance in patients with coronary artery disease. *Journal of Translational Medicine*. **14(1)**: pp 74.
- Kemenkes, RI. 2017. *Buku Panduan Penilaian Teknologi Kesehatan*. Jakarta: Komite Penilaian Teknologi Kesehatan.

- Kemenkes RI. 2018. Hasil Riset Kesehatan Dasar Tahun 2018. Kementerian Kesehatan RI. **53(9)**:pp 1689–1699.
- Kim, J.T., Choi, K.H., Park, M.S., *Et al.* 2018. Clinical Significance of Acute and Serial Platelet Function Testing in Acute Ischemic Stroke. *Journal of the American Heart Association*. **7(11)**: pp 2.
- Kim, Y. G., Suh, J-W., Park, J. J., Oh, I-Y., Yoon, C-H., Cho, Y-S., Youn, T-J., Chae, I-H., & Choi, D-J. 2015. Different influences of hematocrit on the results of two Point-Of-Care platelet function tests, the VerifyNow assay and multiple electrode platelet aggregometry. *Journal Plos One*. **9(11)**: pp e114053.
- Knuuti, J. 2019. ESC Guidelines for the Diagnosis and Management of Chronic Coronary Syndromes. *European Heart Journal*. **41(3)**: pp 407-477.
- Latifah, N. 2018. Perpustakaan Sebagai Sentral Servis Benih (Sumber) Informasi. *Nusantara Journal of Information an Library Studies*. **1(2)**:132-137.
- Lilly, L. S. 2016. *Pathophysiology of heart disease*. China: Lippincott Williams & Wilkins.
- Lorga, A., Cunningham, C. M., Moazeni, S., Ruffenach, G., Umar, S. and Eghbali, M. 2017. The Protective Role of Estrogen and Estrogen Receptors in Cardiovascular Disease and The Controversial Use of Estrogen Therapy. *Journal BioMed Central*. **8(33)**: pp 3-16.
- MacLaughlin, E., and Saseen, J. 2020. 'Hypertension' in J. T. Dipiro. *Pharmacotherapy Handbook* Eleventh Edition. McGraw-Hill Education. New York. pp 30.
- Majid, A. 2007. Penyakit Jantung Koroner: Patofisiologi, Pencegahan, dan Pengobatan Terkini. Medan: Universitas Sumatera Utara.
- Majumdar, S., Rustagi, S., Mondal, S., Rijhwani, V., Kaur, J., and Sharma, P. 2014. Aspirin Resistance: An Emerging Clinical Predicament is Associated with Single Nucleotide Polymorphisms. *International Journal of Basic and Applied Biology*. **2(2)**: pp 63-68.
- Marieb, E. N., & Hoehn, K. 2016. *Human Anatomy & Physiology*. London: Pearson Education.

- Marniati., Notoatmodjo, S., Kasiman, S., & Rochadi, R. K. 2021. *Lifestyle Of Determinant Penderita Penyakit Jantung Koroner*. Rajawali Press. Depok.
- McNeil, J. J., Wolfe, R., Woods, R. L., & Tonkin, A. M. 2018. Effect of Aspirin on Cardiovascular Events and Bleeding in the Healthy Elderly. *The New England Journal of Medicine*. **379(16)**: pp 1509-1518.
- McPhee, S.J. and Hammer, G.D. 2016. Pathophysiology of Disease An Introduction to Clinical Medicine. McGraw-Hill Education. New York.
- Megawati, S., Rahmawati, R., & Fhatonah, N. 2021. Evaluasi Penggunaan Obat Antiplatelet Pada Pasien Stroke Iskemik. *Jurnal Farmagazine*. **8(1)** : pp 39-43.
- Mota, R., Homeister, J.W., Willis, M.S. and Bahnson, E.M. 2017. Atherosclerosis:Pathogenesis, Genetics and Experimental Models. In eLS, John Wiley & Sons, Ltd (Ed.). pp 1-10.
- Nursalam. 2020. *Penulisan Literature Review Dan Systematic Review Pada Pendidikan*. Fakultas Keperawatan Universitas Airlangga. Surabaya.
- Pagatpatan, C., & Arevalo, J. E. 2016. Systemic Literature Search Strategies for the Health Sciences. *The Philippine Journal of Nursing*. **86(1)**: pp 48-55.
- Paven, E., Dillinger, J. G., Bal dit Sollier, C., Vidal-Trecan, T., Berge, N., Dautry, R., Gautier, J. F., Drouet, L., Riveline, J. P., & Henry, P. 2019. Determinants of aspirin resistance in patients with type 2 diabetes. *Journal Diabetes and Metabolism*. **46(5)**: pp 370-376.
- Perki. 2018. Pedoman Tata Laksana Sindrom Koroner Akut 2018. Perhimpunan Dokter Spesialis Kardiovaskular Indonesia. pp 76.
- Pracilia, P. C. 2018. Hubungan Antara Kebiasaan Merokok dengan Kejadian Penyakit Jantung Koroner Pada Pasien Yang Berkunjung di Instalasi Cardiovascular and Brain Centre (CVBC) RSUP Prof. DR. R. D. Kandaou Manado. *Jurnal Kesehatan Masyarakat*, **7(4)**:pp 1-5.
- Pranawa, & Presley, B. 2018. 'Hipertensi' in A. P. Setiadi, & S. V. Halim. *Penyakit Kardiovaskular; Seri Pengobatan Rasional*. Graha Ilmu. Yogyakarta.

- Ritter, J. M. 2020. *Rang and Dale's Pharmacology: Ninth edition*. Elsevier Churchill Livingstone. China.
- Rodgers, J. L. 2019. Cardiovascular Risks Associated with Gender and Aging. *Journal of Cardiovascular Development and Disease*. **6(2)**: pp19.
- Rucker, D., & Dhamoon, A. S. 2021. Physiology, Thromboxane A2. Diakses pada tanggal 17 April 2022. <https://www.ncbi.nlm.nih.gov/books/NBK539817/>.
- Saito, Y., Okada, S., Ogawa, H., Soejima, H., Sakuma, M., Nakayama, M., Doi, N., Jinnouchi, H., Waki, M., Masuda, I., & Morimoto, T. 2017. Low-Dose Aspirin for Primary Prevention of Cardiovascular Events in Patients With Type 2 Diabetes Mellitus. *American Heart Association Journal*. **135(7)**: pp 659-670.
- Saleh, M., & Ambrose, J. A. 2018. Understanding Myocardial Infarction [version 1; peer review: 2 approved]. *F1000 Research*. **7(F1000 Faculty Rev)**: pp1378.
- Sanguhi, K., Shuldiner, A. R., Klein, T. E., & Altman, R. B. 2011. Platelet aggregation pathway. *Pharmacogenet Genomics*. **21(8)**: pp516-521.
- Shalehah, A., Cahaya, N., & Fadlilaturrehmah. 2015. Pengaruh Pemberian ekstrak Etanol Daun Kajajahi (*Leucosyke capitellata* Wedd.) Terhadap Efek Pembekuan Darah dan Penurunan Agregrasi Platelet pada Darah Manusia Sehat Secara In Vitro. *Jurnal Pharmacy*. **12(02)**: pp140-152.
- Sherwood, L. 2007. Fisiologi Manusia: Dari Sel ke Sistem Edisi 6. Diterjemahkan dari Bahasa Inggris oleh Brahm. EGC. Jakarta.
- Snyder, H. 2019. Literature Review As a Research Methodology: An Overview and Guidelines. *Journal of Business Research*, **104(C)**: pp 334-338.
- Somuncu, M. U., Demir, A. R., Karakurt, H., Serbest, N, G., Kalayci, B., Bulut, U., & Karakurt S. T. 2018. The Relationship Between Aspirin Resistance and Carotid Imaging in Young Patients With ST-Segment Elevated Myocardial Infarction: A Cross-Sectional

Study. *Journal of Clinical and Applied Thrombosis/Hemostasis*, **24(8)** : pp 1358-1364.

- Stein, J. H., Korcarz C. E., and Hurst, R. T. 2008. Use of carotid ultrasound to identify subclinical vascular disease and evaluate cardiovascular disease risk: a consensus statement from the American Society of Echocardiography Carotid Intima-Media Thickness Task Force. Endorsed by the Society for Vascular Medicine. *J Am Soc Echocardiogr*. **21(2)**:93-111.
- Syamalakumari, S. N., Kannan, A., & Nair, G. G. 2016. Prevalence of Aspirin Resistance in Coronary Artery. *International Journal of Research in Medical Sciences*. **4(12)**:5265-5268.
- Tjahjono, M., & Irawati, L. 2018. 'Dislipidemia' in A. P. Setiadi, & S. V. Halim. *Penyakit Kardiovaskular : Seri Pengobatan Rasional*. Yogyakarta: Graha Ilmu.
- Trujillo, J., and Haines, S. 2020. 'Diabetes Mellitus' in J. T. Dipiro. *Pharmacotherapy Handbook* Eleventh Edition. McGraw-Hill Education. New York. pp 91.
- Uchiyama, S., Goto, S., Origasa, H., Uemura, N., Sugano, K., Hiraishi, H., Shimada, K., Okada, Y., & Ikeda, Y. 2019. Major cardiovascular and bleeding events with long-term use of aspirin in patients with prior cardiovascular diseases: 1-year follow-up results from the Management of Aspirin-induced Gastrointestinal Complications (MAGIC) study. *Journal of Heart and Vessels*. **35(2)**:170-176.
- Vuckovic, K. M., & Bursua, A. 2018. 20 Things You Didn't Know About Beta-Blockers. *Journal of Cardiovascular Nursing*. **33(1)**:4-5.
- WHO. 2020. Noncommunicable Diseases. Diakses pada tanggal 10 November 2021. <https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases>
- Younis, L. 2020. Antiplatelet Drug Overview. *GSC Biological and Pharmaceutical Sciences*. **10(1)**:081-089.
- Zhang, J. 2017. Predictors of High On-Aspirin Platelet Reactivity in Elderly Patients with Coronary Artery Disease. *Clinical Interventions in Aging*. **12**:1272-1276.