

BAB 5

PENUTUP

5.1 Kesimpulan

Dari hasil penelitian yang diperoleh maka dapat diambil kesimpulan sebagai berikut: Terapi metotreksat selama 6 bulan berpengaruh terhadap penurunan kadar BUN dan kreatinin pada pasien artritis reumatoid, namun penurunan tersebut masih dalam rentang normal sehingga tidak mempengaruhi fungsi ginjal.

5.2 Saran

- Perlu dilakukan penelitian dengan waktu yang lebih lama mengenai kadar BUN dan kreatinin.
- Perlu dilakukan penelitian terkait parameter yang lain.

DAFTAR PUSTAKA

- Adli, M., Bauer, M., & Rush, A.J. 2006. Algorithms and Collaborative-care System for Depression : are they effective and why? A systematic review, *Biology Psychiatry*, **59**: 1029-1038.
- Agarwal, SK. 2011. Biologic Agents in Rheumatoid Arthritis: An Update for Managed Care Professionals. *J Manag Care Pharm.* [cited 2012 January 24]; **17(9-b)**: S14-S18.
- Agarwal V., Chauhan S., Singh R., Sachev A. and D'Cruz S.2005. : Pancytopenia with the first dose of methotrexate in a patient with psoriatic. *J. Indian Assoc.*, **13**: 60-61.
- American College of Rheumatology, 1987, American collage of Rheumatology : recomendations for use of disase-modiying antirheumatic drugs and biologic agents in th rheumatoid artrithis, *American Collage of Rheumatology* **64(5)**; 625-638.
- Aisyah J., 2009. *Karakteristik Penderita Gagal Ginjal Rawat Inap Di RS Haji Medan Tahun 2009. Skripsi.* Fakultas Kesehatan Masyarakat Universitas Sumatera Utara.
- Bertram G. Katzung, MD, PhD. 2007. *Basic and Clinical pharmacology* – 10th Ed. McGraw – Hill Medical. USE.
- Bredveeld, *Masyarakat Tidak Sadari Ancaman Rematik Radang Sendi*, 2003. Diunduh dari <http://www.sinarharapan.co.id/>. Diakses pada tanggal 12 September 2014.
- Bishop L. Michael, Duben L, Janet – Kirk Englelel, Fody P. Edward. 2002. *Clinical Chemistry: Principles, Procedures, Correlations Edisi 4*. Lippincott Williams & Willkins (A Wolters Kluwer Company). Baltimore
- Bykerk V. P., Pooneh A, Glen S. H, Orit S, and Anne D, 2011, Canadian Rheumatology Association recommendations for pharmacological management of rheumatoid arthritis with traditional and biologic

- disease-modifying antirheumatic drugs, *Journal of Rheumatology* 34, 25-32.
- Carter, MA. 2005. *Arthritis Reumatoid*. In: Price SA, Wilson LM. *Patofisiologi : Konsep Klinis Proses - Proses Penyakit Volume 2*. Ed. 6. Jakarta : EGC; 1385 - 91.
- Corwin, J.E., 2001, *Buku Saku Patofisiologi*, Penerbit Buku Kedokteran. Jakarta: EGC.
- Faisal R, Chiragh S, Popalzai AJ, Rehman K. 2015. Antiinflammatory effect of thymoquinone in comparison with methotrexate on pristane induced arthritis in rats. *J Pak Med Assoc* ; **65**: 519-25.
- Furst, D. E., Munster, T. 2014, “obat-obat Antiinflamasi Non Steroid, obat-obat Antireumatik Pemodifikasi Penyakit, Analgesik Nonopioid dan obat-obatan untuk Pirai” dalam Katzung, bG.G., Masters, S.B. and Trevor, A.J. 2014 *Farmakologi Dasar dan Klinik*, 12ed., Penerbit Buku Kedokteran EGC, Jakarta, hlm. 472-473.
- Firestein GS, Paine M.M., Littman B.H., 2005, *Kelley's Textbook of Rheumatology*, Philadelphia.
- Gallagher, PJ. *Osteoartikular dan jaringan ikat*. In: Underwood, JCE. *Patologi Umum dan Sistematis Volume 2*. Ed. 2. Jakarta : EGC; 1999: 832- 8. 5523. Jawaheer D, Maranian P, Park G, Lahiff M, Amjadi SS, Paulus HE. 2010. Disease Progression and Treatment Responses in a Prospective DMARD - naïve Seropositive Early Rheumatoid Arthritis Cohort. *J Rheumatol*. 2010 [cited 2011 November 10]; **37(12)**: 2475 - 2485.
- Genestier L, Paillot R, Quemeneur L, Izeradjene K, Revillard JP. 2000. Mechanisms of action of methotrexate. *Immunopharmacology* **47**: 247-257.
- Gordon, N. F. 2002. *Radang Sendi*. Jakarta: PT Raja Grafindo.
- Guyton, A. C dan Hall, J. E. 1997. *Buku Ajar Fisiologi Kedokteran*. Jakarta: EGC.

- I. Asvadi, B. Hajipour, A. Asvadi, N.A. Asl, L. Roshangar, A. Khodadadi
Protective effect of pentoxifylline in renal toxicity after methotrexate administration Eur Rev Med Pharmacol Sci, Volume 15, 2011. Pp. 1003 – 1009.
- Jolivet J, Cowan KH, Curt GA, Clendenim NJ, Chabner BA. *The pharmacology and clinical use of metotraxate*. N Eng J Med 1983; **309**: 1094 – 1104.
- Kastbom K, Strandberg G, Lindroos A, Skogh T. 2004. *Anti - CCP antibody test predicts the disease course during 3 years in early rheumatoid arthritis (the Swedish TIRA project)*. Ann Rheum Dis. [cited 2011 October 15]; **63**: 1085 – 1089.
- Laboratory Technologist .2010. *Health Information*. Canadian Insitute for Health Information (CIHI) Canada.
- Naingolan, Olwin, 2009, *Prevalensi dan Determinan Penyakit Rematik di Indonesia*, Majalah Kedokteran Indonesia, Jakarta.
- Suarjana, I Nyoman. 2006. *Artritis Reumatoid*. In: Sudoyo, A.W., Setiyohadi,B., Alwi, I., Simadibrata, M., Setiati, S., ed. *Ilmu Penyakit Dalam*. Jakarta: Indonesia: 2495 - 2513.
- Shiel WC, Jr. *Rheumatoid Arthritis* [Internet]. c2011. [updated 2011 August 27; cited 2011 September 7]. Available from http://www.emedicinehealth.com/rheumatoid_arthritis/article_em.htm.
- Pandit, A., Sachdeva, T . and Bafina, P. 2012, Drug-induced hepatotoxicity, *Journal of applid Pharmaceutical Sience*, **2(50)**: 233-244.
- Peter LE. *Artritis Reumatoid*. In: Isselbacher KJ, Braunwald E, Wilson JD, Martin JB, Fauci AS, Kasper DL. Harrison . 2002. *Prinsip - Prinsip Ilmu Penyakit Dalam* Ed 13. Jakarta, Indonesia; 1840 – 1847.
- Price, S. A. dan Wilson, L. M. 2005. *Patofisiologi : Konsep Klinis Proses-Proses Penyakit*, Edisi 6, **Volume 1**. Jakarta: EGC.
- Ro'nnelid J, Wick MC, Lampa J, Lindblad S, Nordmark B, Klareskog L, van Vollenhoven RF. 2005 . *Longitudinal analysis of citrullinated protein/peptide antibodies (anti - CP) during 5 year follow up in*

early rheumatoid arthritis: anti - CP status predicts worse disease activity and greater radiological progression. Ann Rheum Dis. [cited 2011 October 15]; **64**: 1744– 1749.

Sacher, A, R. 2012. *Tinjauan Klinis Hasil Pemeriksaan Laboratorium.* Penerjemah Hartanto. EGC. Jakarta.

Schneeberger, E.E., Citera, G., Maldonado, C.J.A., Oskoueian., Mehta, R.G. 2010 *Factors Associated With Disability in Patients Reumatoid arthritis*, **16**: 215-18.

Shea B., e t al.2014, Folic Acid and Folinic acid for reducing side effects in patients receiving methotrexate for rheumatoid arthritis, *The journal of Rheumatology* **41(6)**: 1049-1060.

Sherwood, L. 2001. *Fisiologi Manusia; dari Sel ke Sistem.* Edisi 2. Jakarta :EGC.

Simsek I. 2011. *TNF inhibitors for rheumatoid arthritis: a year in review .* Bull NYU Hosp Jt Dis. **69(3)**: 220 - 4.

Sjamsuhidajat R, Jong WD. 2004. *Buku Ajar Ilmu Bedah.* Ed. 2. Jakarta: EGC; 911 – 2.

Sukandar, Elin Yulinah, Retno Andrajati, Joseph I Sigit, I Ketut Adnyana, A. Adji Payitno Setiadi, and Kusnandar, 2008. *Iso Farmakoterapi*, Ikatan Sarjana Farmasi Indonesia, Jakarta.

Suwitra, Ketut: Penyakit Ginjal Kronik. In: Aru W Sudoyo, editor. 2005. *Buku Ajar Ilmu Penyakit Dalam* Jilid 2. Edisi 5. Jakarta: Interna Publishing.

Riswanto, 2013. *Pemeriksaan Laboratorium Hematologi.* Alfamedika dan Kanal Medika. Yogyakarta.

Rosner, M. H. & Bolton, W. K. 2006. Renal Function Testing. American Journal of Kidney Diseases. Vol. **47 (1)**: 174-183.

Temprano, K, 2011, *Rheumatoid arthritis*, <http://emedicine.medscape.com/article/331715-overview#aw2aab6b2b6aa>, diakses pada tanggal 9 Oktober 2013.

- Theresia, 2011. 'Evaluasi Kualitatif Penggunaan Antibiotik Di Departemen Ilmu Kesehatan Anak FKUI Rumah Sakit Cipto Mangunkusumo', *Tesis*, Universitas Indonesia, Jakarta.
- Xiao L., Erika A., Yukako Y., Go Y., Rika F., Mami Y. 2016. Effect of Administration Duration of Low Dose Methotrexate on Development of Accute Kidney Injury in Rats. *Med Princ Pract.* **25 (4)** : 281-287.
- Zasshi, N. R. I. 1994. Normal ranges of blood urea nitrogen and serum creatinin levels in the community-dwelling elderly subject aged 70 years or over—correlation between agen and renal fungction. *International Journal of Biology* . **31(3)**: 232-6.