

BAB VII

KESIMPULAN DAN SARAN

7.1.KESIMPULAN

Dari hasil penelitian ini ditemukan bahwa sejauh ini :

1. Tampak kecenderungan peningkatan kadar hs-CRP pada kelompok dengan penebalan KIM / plak arteri karotis komunis, walaupun secara statistik tidak terdapat hubungan yang bermakna antara keduanya.
2. Tidak terdapat hubungan yang bermakna antara kadar hsCRP dengan ekhodensitas KIM / plak arteri karotis komunis.
3. Tampak kecenderungan ekhodensitas KIM arteri karotis komunis yang hipoekhoik pada penderita PJK perokok.

7.2.SARAN

1. Untuk penelitian lebih lanjut, perlu dipertimbangkan faktor riwayat pemberian terapi (sudah mendapatkan terapi atau belum, jenis terapi dan lamanya) serta riwayat penyakit sistemik lainnya yang menyertai.
2. Perlu dilakukan penelitian tentang evaluasi sonografi ketebalan dan ekhodensitas KIM arteri karotis serta hs-CRP pada penderita PJK

Lampiran pada perokok yang tidak menderita PJK.

DAFTAR PUSTAKA

1. Kabo P. Mengungkap pengobatan penyakit jantung koroner. Jakarta: PT Gramedia Pustaka Utama; 2008. Hal. 21-28.
2. Baroncini LA, Oliveira A. Appropriateness of Carotid Plaque and Intima-Media Thickness Assessment in *Routine Clinical Practice*. *Cardiovascular Ultrasound*. 2008. 6;52.
3. Hukkanen J, Jacob P, Benowitz N.L. Metabolism and Disposition Kinetics of Nicotine. *Pharmacol rev* 2005; 57: 79 – 115.
4. Brown CT. Penyakit aterosklerotik koroner. Dalam: Price SA, Wilson LM, editor. Patofisiologi Konsep Klinis Proses-Proses Penyakit. Edisi 4. volume 2. Jakarta: EGC; 1995. Hal. 576.
5. Corr PD. Anatomy of the arteries, veins and lymphatics. Thomson KR, et al. Disease of the arteries, veins and lymphatics. Matsunaga N. Anatomy of the heart and great vessels. In: Peh WCG, Hiramatsu Y, editors. The Asian-Oceanian textbook of radiology. Singapore: TTG Asia Media Pte Ltd; 2003. P. 441, 493, 503.
6. Boudi FB, Ahsan CH. Atherosclerosis : eMedicine Cardiology. 2009; 1-7.
7. Hansson GK. Mechanism of Disease. Inflammation, Atherosclerosis and Coronary Artery Disease, *N Eng J Med*. 2005; 352; 16.
8. World Health Organization. Update Status of the WHO Framework Convention on Tobacco Control. Available at : <http://www.who.int/tobacco/framework/countrylist/en/index.html>. Accessed on Dec 15, 2009.
9. Lina Y. High Sensitivity C-Reactive Protein (hsCRP). *Forum Diagnosticum* 3:1-11, 2007.
10. Stein JH, Fraizer MC. Vascular Age; Integrating Carotid Intima Media Thickness Measurement with Global Coronary Risk Assessment. *Clin Cardio*. 2004.27, 388 – 92.
11. Jian Yang, Cheng Yunhui. Novel Model of Inflammatory Neointima Formation Reveal a Potential Role of Myeloperoxidase in Neointimal Hyperplasia. *Am J Physiol Heart Circ Physiol*. 2006; 291: H3087 – 93.

12. Brennan ML, Penn MS, Van Lente F, Nambi V. Prognostic Value of Myeloperoxidase in Patient with Chest Pain. *NEJM*. 2003; 349(17). 1595 – 604.
13. Tsai Y, Lee C, Huang T, Cheng B, Kuo C, Su Y et al. Inflammatory Marker but Not Adipokine Predicts Mortality among Long-Term Hemodialysis Patients. *Mediators of Inflammation* 2007. 10.1155/2007/19891.
14. Grootendorst D, Jager D, Brandenburg V, Boeschoten E, Krediet R, Dekker R. Excellent in End-Stage Renal Disease Patient-No Additional Power for Mortality Prediction with High Sensitivity CRP. *Nephrol Dial Transplant* 2007; 22: 3277-3284.
15. Finn AV, Kolodgie FD, Virmani R. Correlation Between Intimal / Media Thickness and Atherosclerosis: A Point of View from *Pathology journal of AHA*. 2009; 177 – 81.
16. Kerwin WS. Correlation of Carotid Arteri Pathology and Morfology in Imaging. *Imaging of Carotid Arteri Stenosis*. Springer-Verlag Wien, NY. Karolinska Institute, Stocholm, Sweeden, 2007; Chap 1.2; 19 – 30.
17. Coskun U, Yildiz A, Esen OB, Baskurt M. Relation Between Carotid Intima Media Thickness and Coronary Angiographic Finding. *Cardiovascular Ultrasound*. 2009; 7:59.
18. Tanimoto S, Ikari Y, Yachi S, et al. Prevalence of carotid artery stenosis in patient with coronary artery disease in Japanese population. *Stroke*; 2005. 36: 2094-2098.
19. Geroulakos G, Ramaswami G, Nicolaidis A, et al. Characterisation of Symptomatic and Asymptomatic Carotid Plaques Using High-Resolution Real-Time Ultrasonography. *Br J Surg*. 1993; 1274.
20. El-Barghouty NE, Nicolaidis A, Bahal V, et al. The Identification of High Risk Carotid Plaque. *Eur J Vasc End Surg*. 1996; 11:470.
21. Elatrozy T, Nicolaidis A, Tegos T, et al. The Effect of Image Standardisation on the Echodensity of Symptomatic and Asymptomatic Carotid Bifurcation Plaques. *Int Angiol*. 1998. 17:179.

22. Setiabudy RD. Patofisiologi Trombosis. Hemostasis dan Trombosis. Edisi Ketiga. Departemen Patologi Klinik Fakultas Kedokteran Universitas Indonesia. Jakarta: Balai Penerbit FK UI; 2007. Hal 34 – 7.
23. Stary HC et al. *Circulation*. 1995; 92: 1355 – 74. Dipublikasikan pada seminar Love for Quality : Apo B & hs-CRP sebagai Faktor Risiko Penyakit Kardiovaskular tanggal 30 – 4 – 2001.
24. Aryadi A. Serangan Jantung dan Serangan Otak (ATEROSKLEROSIS). Bandung. 2010.
25. Ambrose J.A., Barua R.S. The Pathophysiology of Cigarette Smoking and Cardiovascular Disease. *J.Am Coll Cardiol*. 2004 ; 43:1731 – 7.
26. Kwon J-T, Nakajima M. Nicotine Metabolism and CYP2A6 Allele Frequencies in Koreans. *Pharmacogenetics*. 2001; 11:317 – 23.
27. Tricker AR. Nicotine Metabolism, Human Drug Metabolism, Polimorfism and Smoking Behavior. *Toxicology*. 2003; 151 – 73.
28. Malaiyandi V., Sellers E.M., Tyndale R.F. Implications of CYP2A6 genetic variation for smoking behaviors and nicotine dependence. *CLin Pharmacol Ther*. 2005; 77: 145 – 58.
29. Barua R.S., Ambrose J.A., Eales-Reynolds I.J., DeVoe M.C., Zervas J.G., Saha D.C. Dysfunctional Endothelial Nitric Oxide Biosynthesis in Healthy Smokers with Impaired Endothelium-Dependent Vasodilatation. *Circulation*. 2001. 104: 1905 – 10.
30. Ringer A, Smith F, Atchley K. Carotid Stenosis. Mayfield Clinic & Spine Institute. Cincinnati. 11.2009.
31. Nichols SJ, Hazen SL. Myeloperoxidase and cardiovascular disease. *Atherosclerosis thromb vasc biol*. 2005; 25; 1102-11
32. Riswanto. Tes Imuno-serologi : Protein C-reaktif. Laboratorium Kesehatan. Publish on Saturday, November 21, 2009. Available at <http://labkesehatan.blogspot.com/> (cited on October 8, 2011).
33. Spagnoli LG, Bonanno E. Role of Inflammation in Atherosclerosis. *The Journal of Nuclear Medicine*. 2007; Vol. 48 no. 11.
34. Stein JH, Korcarz CE, Hurst T, Lonn E. Use of Carotid Ultrasound to Identify Subclinical Vascular Disease and Evaluated 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. *Journal of ASE*. 2008. 93 – 108.
35. Gray Weale AC, Graham JC, Burnett JR: Carotid Artery Atheroma : Comparison of Preoperative B-Mode Ultrasound Appearance with Carotid Endarterectomy Specimen Pathology. *J Cardiovasc Surg*. 1998 : 29; 676.
 36. Golemati Spyretta, Tegos TJ. Echogenicity of B-Mode Sonographic Image of the Carotid Artery. *J Ultrasound Med*. 2003; 23; 659 – 69.
 37. Jegelevicius D, Lukosenvicius. An Ultrasonic Measurement of Human Carotid Artery Wall Intima Media Thickness. *ISSN*. 2002. 1392 – 21.
 38. Fouchier SW, Rodenburg J, Defesche JC, Kastelein JJP. Management of Hereditary Dyslipidemia; the Paradigm of Autosomal Dominant Hypercholesterolaemia. *European Journal of Human Genetics* 2005; 13,1247 – 53.
 39. Junquiera LC, Carneiro J. alih bahasa: Dharma A. Histologi dasar. Edisi 3. Jakarta: EGC; 1992. Hal. 243-5.
 40. Wang XL, Raveendran M, Wang J. Genetic Influence on Cigarette Induced Cardiovascular Disease. *Progress in Cardiovascular Disease*. 2003; vol 45(5). 361 – 82.
 41. Maarifat NN. Ketebalan Kompleks Intima Media Arteri Karotis pada Kelompok Khusus Usia 20-30 Tahun di RSUPN-CM. 2005; 34 – 5.
 42. Wendelhag I, Wiklund O. Arterial Wall Thickness in Familial Hypercholesterolemia. *Journal of American Heart Association*. 1992; 12:70-77.
 43. Halenka M. Noninvasive Measurement of Early Atherosclerosis by High Resolution B-Mode Ultrasonography. *Acta Univ. Palckii, Olomuc Fac. Med*. 1999; Vol. 142. 1-12.
 44. Potter K, Reed CJ, Green DJ. Ultrasound Setting Significantly Alter Lumen and Wall Thickness Measurement. *Cardiovascular Ultrasound*. 2008; 6;6.

45. Tegos TJ, Sabetai MM, Nocolaides AN, Pare G. Comparability of the Ultrasonic Tissue Characteristics of Carotid Paques. *Journal of Ultrasound Med* 2000; 19;339 – 407.
46. Brajovic MD, Markovic N, Loncar G, Šekularac N, Kordic D, Despotovic N, et al. The Influence of Various Morphologic and Haemodynamic Carotid Plaque Characteristics on Neurological Events Onset and Deaths. *The Scientific World Journal*. 2009; 9;509 – 21.
47. Sacher RA, McPherson RA. Dasar Immunologi dan Pemeriksaan Immunologi. Dalam : Tinjauan Klinis Hasil Pemeriksaan Laboratorium (*Widmann's Clinical Interpretation of Laboratory Test*). Edisi 11. Jakarta : EGC; 2000. Hal.231.
48. Rifai N, Warnick GR, Remaley AT. Analytes : Lipid, Lipoproteins, Apolipoproteins, and Other Cardiovascular Risk Factors. In : Burtis CA, Ashwood ER, Bruns DE (*editors*) *Fundamentals of Clinical Chemistry*. Sixth Edition. Philadelphia : Saunders Elsevier; 2008. P.428.
49. Hodis HN, Mack WJ, LaBree L, Selzer RH, Liu Chao-ran, Liu Ci-hua, et al. Reduction in Carotid Arterial Wall Thickness Using Lovastatin and Dietary Therapy : A Randomized, Controlled Clinical Trial. American College of Physicians : *Annals of Internal Medicine*. Volume 124. Number 6. 15 March 1996. P. 548 – 56.

Lampiran 1.

FORM PERSETUJUAN SETELAH PENJELASAN (Informed Consent)

Saya yang bertanda tangan di bawah ini :

Nama :

Umur/Kelamin :

Alamat :

Bukti diri/KTP :

Dengan ini menyatakan dengan sesungguhnya serta memberikan persetujuan dan bersedia menjalani/mengikuti penelitian ini, setelah mendapat penjelasan dari peneliti (dokter) dan mengerti sepenuhnya tentang prosedur penelitian yang akan dilakukan .

Demikian pernyataan ini saya buat dengan penuh kesadaran dan tanpa paksaan dari pihak manapun.

Tanggal :

Tanda tangan : Yang membuat pernyataan,

1.

(.....)

2.

(.....)

(.....)

Lampiran 2.

CURICULUM VITAE

A. Data Pribadi

1. Nama : Faisal
2. Tempat tgl lahir : Tolitoli, 3 Nopember 1979
3. Alamat : Jl. Perumtel III C1/58, Telkomas,
Makassar
4. Status Sipil : Menikah
Nama Isteri : Nur Cyntia Kornelius
Nama Anak : Mohammad Khanza

B. Riwayat Pendidikan

a. Pendidikan formal

Tamat SD tahun 1991 di Tolitoli

Tamat SLTP tahun 1994 di Tolitoli

Tamat SLTA tahun 1997 di Tolitoli

Sarjana (S1) tahun 2004 di Universitas Hasanuddin

b. Pendidikan non formal : -

C. Pekerjaan dan Riwayat Pekerjaan

Pekerjaan : RSUD Mokopido Kab. Tolitoli, Sulawesi
Tengah
NIP : 19791103 200501 1 012
Pangkat/Jabatan : III d / Penata Tingkat I

D. Karya Ilmiah / Artikel yang sudah dipublikasikan :-

E. Makalah pada seminar / Konferensi Ilmiah Nasional dan Internasional:

Gastrointestinal Stromal Tumor pada Anak. Pertemuan Ilmiah
Tahunan ke III Perhimpunan Dokter Spesialis Radiologi Anak
Indonesia. Lombok, 4 – 5 Desember 2010.

Lampiran 3.