

## **BAB V**

### **KESIMPULAN DAN SARAN-SARAN**

#### **5.1. Kesimpulan**

Berdasarkan hasil analisis data dan interpretasi penemuan, maka dapat disimpulkan bahwa metode kromatografi lapis tipis yang digunakan dalam kondisi fase diam silika gel 60 F<sub>254</sub>, dengan fase gerak campuran CHCl<sub>3</sub> : amonia : MeOH (70:5:2, v/v/v) dapat digunakan untuk mengidentifikasi dan menetapkan kadar sildenafil sitrat dalam campuran Retrofracti Fructus, Colae Semen, Amomi Fructus, Nigellae Semen, dan Eurycomae Radix.

#### **5.2. Saran-saran**

Berdasarkan hasil penelitian ini, disarankan untuk mengaplikasikan metode kromatografi lapis tipis untuk identifikasi dan penetapan kadar sildenafil sitrat dalam berbagai sediaan jamu kuat pria yang beredar di pasaran.

## DAFTAR PUSTAKA

- Al-Zuhair, H., El-Sayeh, B., Ameen, H. A., Al-Shoora, H. *Pharmacological Studies of Cardamomum Oil in Animals*. Pharmacol Res. 1996 Jul-Aug; 34 (1-2): 79-82.
- Al-Naggar, T. B., Gomez, S. M. P., Carretero, M. E. 2003. Neuropharmacological Activity of Nigella sativa L. Extracts. Journal of Ethnopharmacology, 88 (1), 63-68.
- Blumenthal, M., Goldberg, A., Brinckmann, J. 2000. Herbal Medicine: Expanded Commission E Monograph. Copyright American Botanical Council. Integrative Medicine Communication. p. 84.
- BPOM, 2005. *Peraturan Perundang-undangan di Bidang Obat Tradisional, Obat Herbal Terstandar dan Fitofarmaka: Tentang Kriteria dan Tata Laksana Pendaftaran Obat Tradisional, Obat Herbal Terstandar dan Fitofarmaka*. Jakarta. p. 69.
- BPOM., 2006. *Public Warning: Tentang Obat Tradisional Mengandung Bahan Kimia Obat*. Jakarta.
- Deinstrop, E. H. 2000. *Applied Thin Layer Chromatography*. Wiley-VCH. New York.
- Depkes RI. 2000. *Parameter Standar Umum Ekstrak Tumbuhan Obat*. Jakarta.
- Gasparic, J. & Churacek, J. 1978. *Laboratory Handbook of Paper and Thin Layer Chromatography*. John Wiley and Sons, New York. Pp. 76-92.
- Goodman & Gillman's. 2006. Drugs Acting at Synaptic and Neuroeffector Junctional Sites. In: Westfall, T. C. and Westfall, D. P. (Ed). *The Pharmacological Basis of Therapeutics*. McGraw Hill. New York. Pp. 268-269.
- Gritter, R. J., et al. 1991. *Pengantar Kromatografi*. Edisi kedua. Institut Teknologi Bandung, Bandung. Pp. 3-15.
- Herbal Medicines India. 2002. Ayurvedic Herbs India. Pp. 3-4
- Indrayanto, G. 1994. Validasi metode pada analisis dengan kromatografi. *Buletin ISFI*, 22, 21-25.

- Kirchner, J. G. 1978. *Thin Layer Chromatography*. 2<sup>nd</sup> edition. A wiley-Interscience Publication, John Wiley & Sons, New York. Pp. 88-92.
- Kloner, R., 2003. Cardiovascular effect of Tadalafil. *The American Journal of Cardiology*, 92(9), 37-46.
- Martindale. 2005. *The Complete Drug Reference*. ed. 34. Pharmaceutical Press. Pp.1744-1763.
- Massoud, M. 2005. Sildenafil Determination in Various Matrices: A Review. *Iranian Journal of Pharmacology & Therapeutics*, 4, 72-75.
- Materia Medika Indonesia I*, 1977. Departemen Kesehatan Republik Indonesia. Pp. 80-84.
- Materia Medika Indonesia III*, 1979. Departemen Kesehatan Republik Indonesia. Pp. 12-19, 112-117.
- Materia Medika Indonesia IV*, 1980. Departemen Kesehatan Republik Indonesia. Pp. 31-38.
- Materia Medika Indonesia V*, 1989. Departemen Kesehatan Republik Indonesia. Pp. 212-215.
- Mehrotra, N., Gupta, M., Kovar, A., Meibohm, B., 2007. The Role of Pharmacokinetics and Pharmacodynamics in Phosphodiesterase-5 Inhibitor Therapy. *International Journal Impotence Research*, 19(3), 253-264.
- Mikami E., Ohno T., Matsumoto H., *Simultaneous Identification/determination system for Phenotolamine and Sildenafil as Adulterants in Soft Drinks Advertising Roborant Nutrition*, Forensic Sci Int, 2002 Dec 4; 130 (203); 140-6.
- Moriyasu T., Shigeoka S., Kishimoto K., Ishikawa F., Nakajima J., Kamimura H., Yasuda I., *Identification System for Sildenafil in Health Foods*, Yakugaku Zasshi, 2001 Oct; 121 (10): 765-9.
- Mulya, M. & Suharman. 1995. *Analisis Instrumental*. Airlangga University Press. Surabaya. Pp. 223-235.

- Skoog, D. A. & West, D. M. 1980. *Principles of Instrumental Analysis*. 3<sup>rd</sup> edition. Saunders College, Stanford University, London. Pp. 25-46, 792-808
- Skoog, D. A., West, D. M., Holler, F. J. 1990. *Analytical Chemistry*, 5<sup>th</sup> ed. Harcourt Brace Jovanovich College Publishers. New York. p. 402.
- Skoog, D. A., Holler, E. J., Crouch, S. R., 2007. *Principles of Instrumental Analysis*. Thomson Higher Education. USA. Pp. 848-851
- Stahl, E. 1985. Analisis Obat secara Kromatografi dan Mikroskopi. Penerbit ITB, Bandung. Pp. 1-7, 889.
- Stahl, E. 1969. *Thin Layer Chromatography: A Laboratory Handbook*. 2<sup>nd</sup> edition. Springer-Verlag, Berlin. Pp. 69-76, 81, 86-88, 133-139.
- Sudjadi. 1998. *Metode Pemisahan*. Kanisius, Yogyakarta. Pp. 33-42.
- Sudwan, P., Saenphet, K., Aritajat, S. Sitasawan, N. 2007. Effect of Boesenbergia rotunda L. on Sexual Behaviour of Male Rats. Asian Journal of Andrology; 9 (6) : 849-855.
- Thomas, G. 2000. *Medicinal Chemistry*. John Wiley & Sons. New York, Pp. 456-457.
- Tjitrosoepomo, G. 2005. Morfologi Tumbuhan. Gadjah Mada University Press, Yogyakarta. Pp. 124-138, 182-188, 218-251.
- Touchstone, J. & Sherma, 1979. *Densitometry in Thin Layer Chromatography*. John Wiley & Sons, New York. Pp. 25-42, 84-98.
- Touchstone, J. C & Dobbins, M. F. 1983. *Practice of Thin Layer Chromatography*. 2<sup>nd</sup> edition. John Wiley & Sons, New York. Pp. 56-64
- Voigt, R. 1995. *Buku Pelajaran Teknologi Farmasi*. Gadjah Mada University Press. Yogyakarta. Pp. 562-573.
- Wiart, C. *Medicinal Plants of Southeast Asia*. 2002. Wong, F. K. (Ed). Prentice Hall. Malaysia. Pp. 190-191.

Yakubu, M. T., Akanji, M A., Oladiji, A. T. *Male Sexual Dysfunction and Methods used in Assessing Medicinal Plants with Aphrodisiac Potentials*. Pharmacognosy Reviews. 2007 Jan; 1 (1): 49-56.

Zar, J., H., 1984. *Biostatistical Analysis*. 2<sup>nd</sup> edition, Prentice Hall, Inc., New Jersey. Pp.162-184.

