BAB 5

SIMPULAN

5.1. Simpulan

Dari data penelitian yang telah diinterpretasikan, dapat ditarik kesimpulan :

- Tablet likuisolid piroksikam dengan menggunakan gliserin sebagai pelarut *non volatile* dapat meningkatkan pelepasan piroksikam dari sediaan tablet likuisolid dibandingkan dengan tablet tanpa pelarut *non volatile* yaitu gliserin.
- Formula tablet likuisolid piroksikam dengan konsentrasi obat dalam pelarut *non volatile* 50%b/b memiliki sifat fisik tablet dan disolusi yang memenuhi persyaratan, yaitu kekerasan tablet 13,54 kgf, kerapuhan tablet 0,112%, waktu hancur tablet 1 menit, dan persen efisiensi disolusi 69,7%.

5.2. Alur Penelitian Selanjutnya

Dilakukan penelitian tablet likuisolid berdosis kecil dengan mencari formula optimum yang meliputi konsentrasi obat dalam pelarut, konsentrasi bahan pengisi serta perbandingan antara bahan pengisi dan penyalut.

DAFTAR PUSTAKA

Agoes, G., 1989, **Peranan Disintegrasi dalam Formulasi Tablet**, Seminar SSG, Jakarta, 1-13.

Anonim, 1979, **Farmakope Indonesia**, Ed. III. Departemen Kesehatan RI, Jakarta, 6-8, 271, 591.

Anonim, 1995, **Farmakope Indonesia**, Ed. IV. Departemen Kesehatan RI, Jakarta, 4-6, 515, 683, 999-1000.

Anonim, 2005, **US Pharmacopeia XXVIII**, US Pharmacopeial Convention, Inc., Rockville, 1569.

Anonim, 1990, **US Pharmacopeia XXII**, US Pharmacopeial Convention, Inc., Rockville, 1778, 1788-1789.

Ansel, H.C., 1989, **Introduction to Pharmaceutical Dosage Form**, 4th ed., Lea & Febiger, Philadelpia, 117-126.

Banakar, U.V., 1992, **Pharmaceutical Disolution Testing**, Marcel Dekker, Inc., New York, 1, 19-26.

Bandelin, F.J., Shangraw, R.F., 1992, Compressed Tablet by Wet Granulation, in: **Pharmaceutical Dosage Forms**, L. Lachman, H. A. Lieberman, J.B. Schwartz (Eds), Vol 1, Marcel Dekker, Inc., New York, 202-209.

Banker, G.S. and N.R. Anderson, 1986, Tablet, in: **The theory and Practice of Industrial Pharmacy**, L. Lachman, H.A. Lieberman, J.L. Kanig (Eds.), 3rd ed., Lea and Febiger, Philadelphia, 295, 299, 310-329.

Bolton, S., 1990, **Pharmaceutical Statistics Practical and Clinical Applications**, 2nd ed., Marcel Dekker, Inc., New York, 324-327.

Cartensen, J.T. and C.C. Ping, 1977, Flow Rate and Repose Angles of Wet Processed Granulation, **J. Pharm. Sci.,** 66, 1235-1238.

Connors, K.A., G.L. Amidon, and V.J. Stella, 1986, **Chemical Stability of Pharmaceutical: A Handbook for Pharmacists**, John Wiley and Sons Inc., New York, 9-41, 61-75, 581.

Davies, P., 2001, Oral Solid Dosage Forms, in: **Pharmaceutical Preformulation and Formulation: A Practical Guide from Candidate Drug Selection to Commercial Dosage Form,** M. Gibson, Vol. 199, 2nd ed., Informa Healthcare USA, Inc., New York, 373.

Dibbern, H. W., R. M. Muller, and E. Wirbitzky, 2002, **Pharmaceutical Substance (UV and IR) and Pharmaceutical Cosmetic Excipients (IR)**, Editio Cantor Verlag, Germany, 1350.

Fiese, E.F., and A.T. Hagen, 1986, Pre Formulation, in: **The Theory and Practice of Industrial Pharmacy**, L. Lachman, H.A. Lieberman, J.L. Kanig (Eds.), 3rd ed., Lea and Febiger, Philadelphia, 183-184.

Forner, D.E., N.R. Anderson, G.S. Banker, T.W. Rosanske and R.E. Gordon, 1981, Granulation and Tablet Characteristic, in: **Pharmaceutical Dosage Form**, L. Lachman and J.B. Schwartz (Eds), Vol.2, Marcel Dekker, Inc., New York, 109-143, 188-190.

Goodman, L.S and Gilman, A.G., 2006, **Pharmaceutical Basic of Therapeutics**, 11th ed., Mc Graw Hill, New York, 703-704.

Green, J.H., 1996, A Practical Guide to Analytical Method Validation, in: **Analytical Chemistry**,Vol. 68., 305-309.

Gunawan, S.G., S. Rianto, Nafrialdi, dan Elysabeth, 2007, **Farmakologi dan Terapi**, ed. 5, Gaya Baru, Jakarta, 241.

Javadzadeh, Y., M.R. Siahi-Shadbad. M. Barzegar-Jalali, and A. Nokhodchi, 2005, Enhancement of Dissolution Rate of Piroxicam using Liquisolid Compacts, **Il Farmaco.,** 60, 361-365.

Karimah, M., 1992, **Teknologi Farmasi Sediaan Solid Tablet**, Product Development PT. Pharos Indonesia, Jakarta, 12-13, 36-37.

Karmakar, A.B., I.D. Gonjari, A. H. Hosmani, P. N. Dhabale, and S. B. Bhise, 2009, **Liquisolid** Tablets: A Novel Approach for Drug Delivery, **International Journal of Health Research.,** 2(1), 45-50.

Karmarkar, A.B., I.D. Gonjari, A.H. Hosmani, P.N. Dhabale, and S.B. Bhise, 2009, Dissolution Rate Enhancement of Fenofibrate using Liquisolid Tablet Technique, **Latin American Journal of Pharmacy.,** 28 (4), 219-225.

Khan, K.A., 1975, The Concept of Dissolution Efficiency. **J. Pharmac.,** 27(1), 48-49.

Langenbucher, F., 1972, Linearization of Dissolution Rate Curve by Weibull Distribution, **J. Pharm. Sci.,** 24, 979-981.

Martin, A. and J. Swarbrick, 1983, **Physical Pharmacy**, 3rd ed., Lea and Febiger, Philadelphia, 845- 847.

Parrot, E.L., 1971, **Pharmaceutical Technology Fundamental Parmaceutics**, 3rd ed., Burgess Publishing Company, Minneapolis, 17-19, 82, 160-162.

Reynolds, J.E.F., 1982, **The Extra Pharmacopeia Martindale**, 28th ed., The Pharmaceutical Press, London, 275.

Rowe, C.R., P.J. Sheskey, P.J. Weller, 2003, **Handbook of Pharmaceutical Excipients**, 4th ed., Pharmaceutical Press, London, 108, 161, 581.

Shargel, L. and A.B.C. Yu, 1999, **Applied Biopharmaceutics and Pharmacokinetics**, 4th ed. McGraw – Hill. New York, 8, 129-156.

Shervington, L.A. and A. Shervington, 1998, Guaifenesin, in: **Analytical Profiles of Drug Substances and Excipients,** H.G. Brittain (Ed.), Vol. 25, Academic Press, London, 152.

Siregar, C.J.P.,1992, **Proses Validasi Manufaktur Sediaan Tablet**, Institut Teknologi Bandung, Bandung, 29-31.

Spireas, S., 2002, Liquisolid Systems and Methods of Preparing Same, **Pharmaceutical Research,** vol. 9, Patentstorm, 1-9.

Swarbick, J., 1976. **In vitro Model of Drug Dissolution Current Concept in the Pharmaceutical Science**, Lea and Febiger, Philadelpia, 265-291.

Voigt, R., 1995, **Buku Pelajaran Teknologi Farmasi**. Terjemahan S. Noerono dan M. S. Reksohardiprojo, Gadjah Mada University Press, Yogyakarta, 163-210.

Wagner, J.G., 1971, **Biopharmaceutics and Relevant Pharmacokinetics**, 1st ed., Drug Intelligence Publications, Illinois, 64-110.

Wells, J.T., 1988, **Pharmaceutical Preformulation: The Physicochemical Properties of Drug Substance**, Ellis Howard, Ltd., Chester, 209-211.

Yadav, V.B. and A.V. Yadav, 2009, Liquisolid Granulation Technique for Tablet Manufacturing, **Journal of Pharmacy Research.,** 2(4), 1-5.

Yadav, V.B. and A.V. Yadav, 2009, Improvement of Solubility and Dissolution of Indomethacin by Liquisolid and Compaction Granulation Technique, **Journal of Pharmaceutical Sciences and Research.,** 1(2), 44-51.