

BAB X

KEPUSTAKAAN

1. Aminullah E. : Kesehatan Masyarakat dan Masalah Kependudukan. Medika, tahun 10 No. 4: 302-306, 1984.
2. Armitage P. : Statistical Methods in Medical Research. Blackwell Scientific Publications, 1983. p. 288-301.
3. Banwell J.G. and Sherr H. : Effect of Bacterial Enterotoxins on the Gastrointestinal tract. Gastroenterology, 65(3): 467-497, Sept. 1973.
4. Blaser M.J., Berkowitz I.D. La Force F.M., Cravens J.S., Reller L.B. and Wang W.L.L. : Campylobacter Enteritis : Clinical and Epidemiologic Features. Ann. Intern. Med., 91(2): 179-185, Aug. 1979.
5. Blaser M.J., Cravens J.S., Power C.W., La Force F.M. and Wang W.L.L. : Campylobacter Enteritis Associated with Unpasteurized Milk. Am. J. Med., 67: 715-718, Oct. 1979.
6. Blaser M.J., Duncan D.J. : Human Serum Antibody Response to Campylobacter jejuni Infection as Measured in an Enzyme-Linked Immunosorbent Assay. Infect. Immun., 44(2): 292-298, May 1984.
7. Blaser M.J., Duncan D.J., Warren G.H. and Wang

- W.L.L. : Experimental *Campylobacter jejuni* Infection of Adult Mice. *Infect. Immun.* 39(2): 908-916, Feb. 1983.
8. Blaser M.J., Parsons R.B. and Wang W.L.L. : Acute Colitis Caused by *Campylobacter fetus* ss. *jejuni*. *Gastroenterology*, 78(3):448-453, March 1980.
 9. Blaser M.J. and Reller L.B. : *Campylobacter* Enteritis. *N. Engl. J. Med.*, 305(24): 144-1452, Dec. 1981.
 10. Blaser M.J., Waldman R.J., Barret T. and Erlandson A.L. : Outbreaks of *Campylobacter* Enteritis in Two Extended Families: Evidence for Person to Person Transmission. *J. Pediatr.*, 98(2): 254-257, Feb. 1981.
 11. Bolton F.J. and Robertson L. : A selective medium for isolating *Campylobacter jejuni/coli*. *J. Clin. Pathol.*, 35(4): 462-467, Apr. 1982.
 12. Buchanan R.E. and Gibbons N.E. : *Bergey's Manual of Determinative Bacteriology*. 8th ed., Baltimore. The Williams & Wilkins Co., 1974, p. 207-212.
 13. Buck G.E., Fojtasek C., Calvert K. and Kelly M.T. : Evaluation of the Campy Pak II Gas Generator System for Isolation of *Campylobacter fetus* subsp. *jejuni*. *J. Clin. Microbiol.*, 15(1): 41-42, Jan. 1982.
 14. Budiarto E. : *Dasar-dasar Metoda Statistika Kedokteran*. Bandung. Penerbit Alumni, 1984. hal. 281-302.

15. Butler T., Islam M., Azad A.K., Islam M.R. and Speelman P. : Causes of Death in Diarrhoeal Diseases after Rehydration Therapy: An Autopsy Study of 140 Patients in Bangladesh. Bull. Wld. Hlth. Aorg., 65(3): 317-323, 1987.
16. Butzler J.P. and Skirrow M.B. : Campylobacter Enteritis. Clin. Gastroenterol., 8(3): 737-765, Sept. 1979.
17. Chang S.C. : Hematoxylin-Eosin Staining of Plastic-Embedded Tissue Sections. Arch.Path., 93: 344-351, 1972.
18. Clark D.S. : Comparison of Pour and Surface Plate Methods for Determination of Bacterial Counts. Can. J. Microbiol., 13: 1409-1414. 1967.
19. Dean A.G., Yi-Chuan Ching, Williams R.G. and Harden L.B.: Test for Escherichia coli Enterotoxin Using Infant Mice: Application in a Study of Diarrhea in Children in Honolulu. J. Infect. Dis., 125(4): 407-411, Apr. 1972.
20. Dharma A. : Histologi Dasar. Edisi 3, Jakarta. CV EGC, 1980. hal.
21. Difco Manual of Dehydrated Culture Media and Reagents for Microbiological and Clinical Laboratory Procedures. 9th.ed., Detroit, Michigan. Difco Laboratories, 1974, p. 93-94, 225-226, 265-266, 269-271.

22. Doyle M.P. and Roman D.J. : Response of *Campylobacter jejuni* to Sodium Chloride. *Appl. Environ. Microbiol.*, 43(3) : 561-565, Mar. 1982.
23. Doyle M.P. and Roman D.J. : Prevalence and Survival of *Campylobacter jejuni* in Unpasteurized Milk. *Appl. Environ. Microbiol.*, 44(5):1154-1158, Nov. 1982.
24. Doyle M.P. : Association of *Campylobacter jejuni* with Laying Hens and Eggs. *Appl. Environ. Microbiol.*, 47(3): 533-536, Mar. 1984.
25. Fernandez H., Neto U.F., Fernandes F., Pedra M.A. and Trabulsi L.R. : Culture Supernatants of *Campylobacter jejuni* Induce a Secretory Response in Jejunal Segments of Adult Rats. *Infect. Immun.*, 40(1): 429-431, Apr. 1983.
26. Field L.H., Underwood J.L., Pope L.M. and Berry L.J. : Intestinal Colonization of Neonatal Animals by *Campylobacter fetus* subsp. *jejuni*. *Infect. Immun.*, 33(3): 884-892, Sept. 1981.
27. Finegold S.M. and Martin W.J. : *Bailey and Scott's Diagnostic Microbiology*. 6th.ed., St. Louis-Toronto-London. The C.V. Mosby Company, 1982, p. 543, 280-283, 655-656, 670-671.
28. Garvey J.S., Cremer N.E. and Sussdorf D.H. : *Methods in Immunology*. 3rd.ed., Massachusetts, W.A. Benjamin

- Inc., 1977, p. 43-47, 66-68, 524.
29. Giannella R.A. : Suckling Mouse Model for Detection of Heat Stable Escherichia coli Enterotoxin: Characteristics of the Model. Infect. Immun., 14(1): 95-99, July 1976.
 30. Gill C.O. and Harris L.M. : Survival and Growth of Campylobacter fetus subsp. jejuni on Meat and in Cooked Foods. Appl. Environ. Microbiol., 44(2): 259-263, Aug. 1982.
 31. Gocke D.J., Suzanne Ponticas and William Pollack : In vitro Studies of the Killing of Clinical Isolated by Povidone-Iodine solutions. Journal of Hospital Infection, 6 (Supplement): 59-66, Mar. 1985.
 32. Grados O., Bravo N., Black R.E. and Butzler J.P. : Paediatric Campylobacter Diarrhoea from Household Exposure to Live Chickens in Lima, Peru. Bull. Wld. Hlth. Org., 66(3): 369-374, 1983.
 33. Grant I.H., Richardson N.J. and Bokkenheuser V.D. : Broiler Chickens as Potential Source of Campylobacter Infection in Humans. J. Clin. Microbiol., 11(5): 508-510, May 1980.
 34. Guerrant R.L., Lahita R.G., Winn W.C. and Roberts R.B. : Campylobacteriosis in Man : Pathogenic Mechanisms and Review of 91 Bloodstream Infections. Am. J. Med., 65(4): 584-592, Oct. 1978.

35. Hartono G. : Sambutan Direktur Jendral PPM dan PLP Departemen Kesehatan Republik Indonesia. Berita Pusat Informasi Diare (BEPID) I(1): 3, 1989.
36. Hoben H.J. and Somasegaran P. : Comparison of the Pour, Spread, and Drop Plate Methods for Enumeration of *Rhizobium* spp. in Inoculants Made from Presterilized Peat. *Appl. Environ. Microbiol.*, 44(5): 1246-1247, Nov. 1982.
37. Janssen D. and Helstad A.G. : Isolation of *Campylobacter fetus* subsp. *jejuni* from Human Fecal Specimens by Incubation at 35° and 42°C. *J. Clin. Microbiol.*, 16(2); 398-399, Aug. 1982.
38. Kaplan R.I., Goodman L.J., Barrett J.E., Trenholme G.M. and Landau W. : Comparison of Rectal Swab and Steel Cultures in Detecting *Campylobacter fetus* subsp. *jejuni*. *J. Clin. Microbiol.*, 15(5): 959-960, May 1982.
39. Kapperud G. and Rosef O. : Avian Wildlife Reservoir of *Campylobacter fetus* subsp. *jejuni*, *Yersinia* spp., and *Salmonella* spp. in Norway. *Appl. Environ. Microbiol.*, 45(2) : 375-380, Feb. 1983.
40. Karmali M.A., De Grandis S. and Fleming P.C. : Antimicrobial Susceptibility of *Campylobacter jejuni* and *Campylobacter fetus* subsp. *fetus* to Eight Cephalosporins with Special Reference to Species Differen-

- tiation. *Antimicrob. Agents Chemoter.*, 18(6): 948-951, Dec. 1980.
41. Karmali M.A. and Fleming P.C. : *Campylobacter enteritis in children. J. Pediatr.*, 94(4): 527-533, April 1979.
 42. Karmali M.A. and Fleming P.C. : Application of the Fortner Principle to Isolation of *Campylobacter* from Stools. *J. Clin. Microbiol.*, 10(2): 245-247, Aug. 1979.
 43. Kinde H., Genigeorgis C.A. and Pappaioanou M.: Prevalence of *Campylobacter jejuni* in Chicken Wings. *Appl. Environ. Microbiol.*, 45(3):1116-1118, Mar. 1983.
 44. King L., Stiles M.E. and Taylor D.E. : Comparison of Basal Media for Culturing *Campylobacter jejuni* and *Campylobacter coli*. *Clin. Microbiol.*, 21(2): 226-230, Feb. 1985.
 45. Klipstein F.A. and Engert R.F. : Properties of Crude *Campylobacter Jejuni* Heat-Labile Enterotoxin. *Infect. Immun.*, 45(2): 314-319, Aug. 1984.
 46. Koenker R.H. : *Simplified Statistics*. Totowa New Jersey Littlefield, Adams & Co., 1971.
 47. Komalarini S., Adisuwirjo K. and Sanborn W.R. : Diarrhoeal Disorders of Bacterial Origin in Jakarta. *Southeast Asian J. Trop. Med. Public Health*, 8(4): 447-451, Dec. 1977.

48. Lick S. Djupri, Netty E.P., Subijanto MS, Pitono Soeparto dan E.B. Wasito : Infantile Gastroenteritis pada Penderita Rawat Jalan RSUD Dr. Soetomo Surabaya. Pertemuan Ilmiah Berkala IX BKGAI, Palembang, 7-8 Desember 1984. (Buku Acara dan Abstrak Pertemuan Ilmiah Berkala IX BKGAI halaman 3.39).
49. Lovett J., Francis D.W. and Hunt J.M. : Isolation of *Campylobacter jejuni* from Raw Milk. *Appl. Environ. Microbiol.*, 46(2): 459-462, Aug. 1983.
50. Luechtefeld N.W., Reller L.B., Blaser M.J. and Wang W.L.L. : Comparison of Atmospheres of Incubation for Primary Isolation of *Campylobacter fetus* subsp. *jejuni* from Animal Specimens: 5% Oxygen Versus Candle Jar. *J. Clin. Microbiol.*, 15(1): 53-57, Jan. 1982.
51. Luechtefeld N.W. and Wang W.L.L. : Hippurate Hydrolysis by and Triphenyltetrazolium Tolerance of *Campylobacter fetus*. *J. Clin. Microbiol.*, 15(1): 137-140, Jan. 1982.
52. Luna L.G. : *Manual of Histologic Staining Methods of the Armed Forces Institute of Pathology*. 3rd ed., New York Toronto London Sidney. McGraw Hill Book Co., 1968. p. 1, 32-39, 222-228.
53. Mallmann W.L. and Broitman S.A. : A Surface Plating Technic for Determining Bacterial Population of Milk. *Am. J. Public Health.*, 46(8): 1018-1020, Aug. 1956.

54. Manninen K.I., Prescott J.F. and Dohoo I.R. : Pathogenicity of *Campylobacter jejuni* Isolates from Animals and Humans. *Infect. Immun.*, 38(1): 46-52, Oct. 1982.
55. Mathewson J.J., Keswick B.H. and DuPont H.L. : Evaluation of Filters for Recovery of *Campylobacter jejuni* from Water. *Appl. Environ. Microbiol.*, 46(5): 985-987, Nov. 1983.
56. McMyne P.M.S., Penner J.L., Mathias R.G., Black W.A. and Hennessy J.N. : Serotyping of *Campylobacter jejuni* Isolated from Sporadic Cases and Outbreaks in British Columbia. *J. Clin. Microbiol.*, 16(2):281-285, Aug. 1982.
57. Mehlman I.J. and Romero A. : Improved Growth Medium for *Campylobacter* Species. *Appl. Environ. Microbiol.*, 43(3): 615-618, Mar. 1982.
58. Memorandum WHO : Persistent Diarrhoea in Developing Countries: Memorandum from a WHO Meeting. *Bull. Wld. Hlth. Org.*, 66(6): 709-717, 1983.
59. Mendenhall W. and Ott L. : *Understanding Statistics*. Belmont, California. Wadsworth Publishing Co., 1972. p. 151-167.
60. Morris G.K. and Patton C.M. : *Campylobacter* cited in *Manual of Clinical Microbiology* edited by Lennette E.H., Balows A., Hausler W.J.Jr. and Shadomy H.J.,

- 4th.ed., Washington D.C. American Society for Microbiology, 1985. p. 302-308.
61. Naruka B.S., Sharma U. and Sarena S. : A Clinical Profile of Diarrhoea in Infancy and Childhood. Indian. J. Paediatr., 41: 374-83, 1974.
 62. Neblett T.R.: Use of Droplet Plating Method and Cysteine Lactose Electrolyte-Deficient Medium in Routine Quantitative Urine Culturing Procedure. J. Clin. Microbiol., 4(3): 296-305, Sept. 1976.
 63. Olsvik O., Wachsmuth K., Morris G. and Feeley J.C. : Genetic Probing of *Campylobacter jejuni* for Cholera Toxin and *Escherichia coli* Heat-Labile Enterotoxin. Lancet, 1(8374): 449, Feb.25. 1984.
 64. Oxoid Manual of Culture Media, Ingredients and Other Laboratory Services. 4th.ed., Basingstoke. Oxoid Limited, 1980, p. 77-78, 195-197.
 65. Pai C.H., Sorger S., Lackman L., Sinai R.E. and Marks M.I. : *Campylobacter* Gastroenteritis in Children. J. Pediatr., 94(4): 589-591, Apr. 1979.
 66. Patton C.M., Mitchell S.W., Potter M.E. and Kaufmann A.F. : Comparison of Selective Media for Primary Isolation of *Campylobacter fetus* subsp. *jejuni*. J. Clin. Microbiol., 13(2): 326-330, Feb. 1981.
 67. Pease D.C. : Histological Techniques for Electron Microscopy. 2nd ed., New York and London. Academic

Press, 1964. p.

68. Pomales-Lebron A. and Fernandez C. : A Method for Estimating the Number of Bacteria in Liquids and Tissues. *J. Bact.*, 64(6): 837-839, Dec. 1952.
69. Reed R.W. and Reed G.B. : "Drop Plate" Method of Counting Viable Bacteria. *Canadian Journal of Research. Section E*, 26: 317-326, Dec. 1948.
70. Richardson M.J., Koornhof H.J. and Bokkenheuser V.D. : Primary Isolation of *Campylobacter fetus* subspecies *jejuni*. *Am. J. Med. Technol.*, 48(3): 197-199, Mar 1982.
71. Richardson S.H., Giles J.C. and Kruger K.S. : Sealed Adult Mice : New Model for Enterotoxin Evaluation. *Infect. Immun.*, 43(1): 482-486, Feb. 1984.
72. Ringertz S., Rockhill R.C., Ringertz O. and Sutomo A. : *Campylobacter fetus* subsp. *jejuni* as a Cause of Gastroenteritis in Jakarta, Indonesia. *J. Clin. Microbiol.*, 12(4): 538-540, Oct. 1980.
73. Robinson G. : *Electron Microscopy 2 : Transmission (A) Tissue Preparation; (B) Sectioning and Staining* cited in *Theory and Practice of Histological Techniques*. 2nd ed., Edinburg London Melbourne and New York. Churchill Livingstone, 1982. p. 482-488.
74. Rosef O. and Kapperud G. : House Flies (*Musca domestica*) as Possible Vectors of *Campylobacter fetus*

- subsp. jejuni. Appl. Environ. Microbiol., 45(2): 381-383, Feb. 1983.
75. Ruiz-Palacios G.M., escamilla E. and Torres N. : Experimental Campylobacter Diarrhea in Chickens. Infect. Immun., 34(1): 250-255, Oct. 1981.
76. Sanyal S.C., Islam K.M.N., Neogy P.K.B., Islam M., Speelman P. and Hug M.I. : Campylobacter jejuni Diarrhea Model in Infant Chickens. Infect. Immun., 43(3): 931-936, Mar. 1984.
77. Siegel S. : Nonparametric Statistics for The Behavioral Sciences. Internal Student Edition, Tokyo. McGraw Hill Kogakusha, Ltd., 1956. p. 75-83.
78. Skirrow M.B. : Campylobacter enteritis : a "new" disease. Br. Med. J., 2(6078): 9-11, July 1977.
79. Smith D.C. : Methods of Euthanasia and Disposal of Laboratory Animals cited in Methods of Animal Experimentation edited by William I Gay, Vol. I, New York and London. Academic Press, 1965, p. 167-195.
80. Smith J.P., Durfee K. and Marymont J.H.Jr. : Incidence of Campylobacter Enteritis in the Midwestern United States: Am. J. Med. Technol., 46(2): 81-84, 1980.
81. Snyder J.D. and Merson M.H. : The Magnitude of The Global Problem of Acute Diarrhoeal Disease : A Review of Active Surveillance Data. Bull. Wld. Hlth. Org.,

- 60(4): 605-613, 1982.
82. Soeparto P. : Studi mengenai Gastroenteritis Akuta dengan Dehidrasi pada Anak melalui Pendekatan Epidemiologi Klinik. Ringkasan Disertasi, Airlangga University Press, 1987.
 83. Sutoto : Angka Kematian Bayi dan Upaya Penurunannya di Indonesia. Majalah Kesehatan Masyarakat Indonesia, Tahun XV No. 5: 283-289, 1984.
 84. Tantular K : Diare karena Infeksi Parasit. Pidato Pengukuhan Guru Besar Fakultas Kedokteran Universitas Airlangga, 1983.
 85. Tumbelaka W.A.F.J. and Sunoto : Death Due to Diarrhea: Before and After National Rehydration Program. Paediatr. Indones., 13:319-322, 1978.
 86. Vanhoof R., Vanderlinden M.F., Dierickx R., Lauwers S., Yourassowsky E. and Butzler J.P. : Susceptibility of *Campylobacter fetus* subsp. *jejuni* to Twenty-Nine Antimicrobial Agents. Antimicrob. Agents Chemother., 14(4): 553-556, Oct. 1978.
 87. Vanhoof R., Gordts B., Dierickx R., C. H. and Butzler J.P. : Bacteriostatic and Bactericidal Activities of 24 Antimicrobial Agents Against *Campylobacter fetus* subsp. *jejuni*. Antimicrob. Agents Chemother., 18(1) : 118-121, July 1980.
 88. Wang W.L.L., Luechtefeld N.W., P. J. and Keller

CampyPak II with Standard 5%

Growth of Campylobacter

biol., 16(2):

Hunan, The People's Republic of China : Epidemiology
and Comparison of Chinese and American Methodology.
Diagn. Microbiol. Infect. Dis., 5(2): 143-149, July
1986.

BAB XI

LAMPIRAN

Tabel 1. Penghitungan cara tetes konsentrasi sel kuman dalam biakan cair hasil pengeraman 2 koloni kuman *Campylobacter fetus* subspecies jejuni pada medium CA-YE secara mikroaerofilik selama 2X24 jam pada suhu 37°C.

Pemeriksaan	Konsentrasi (m.o/ml)
1	32,0 X 10 ⁷
2	29,3 X 10 ⁷
3	23,3 X 10 ⁷
4	22,6 X 10 ⁷
5	28,6 X 10 ⁷
6	26,0 X 10 ⁷
7	33,0 X 10 ⁷
8	28,0 X 10 ⁷
9	28,0 X 10 ⁷
10	27,3 X 10 ⁷
11	29,0 X 10 ⁷
12	26,0 X 10 ⁷

Mean = 27,76 X 10⁷

Median = 28,00 X 10⁷

Modus = 26,00 X 10⁷ dan 28,00 X 10⁷

Varians = 9,37 X 10¹⁴

Deviasi standard = 3,06 X 10⁷

Tabel 2. Penghitungan cara tetes konsentrasi sel kuman dalam biakan cair sebelum dan sesudah dipusingkan dengan kekuatan sebesar 2000Xg selama 20 menit.

Pemeriksaan	Konsentrasi sel kuman (m.o/ml)	
	sebelum pemusingan	sesudah pemusingan
1	24,0 X 10 ⁷	22,0 X 10 ⁷
2	28,0 X 10 ⁷	26,0 X 10 ⁷
3	30,0 X 10 ⁷	30,0 X 10 ⁷
4	30,0 X 10 ⁷	30,0 X 10 ⁷
5	26,0 X 10 ⁷	24,0 X 10 ⁷
6	34,0 X 10 ⁷	32,0 X 10 ⁷

N	N for test	Wilcoxon Statistic	Estimated Center
6	6	21 X 10 ⁷	29,00 X 10 ⁷
6	6	24 X 10 ⁷	27,00 X 10 ⁷

P = 0,036

- 60(4): 605-613, 1982.
82. Soeparto P. : Studi mengenai Gastroenteritis Akuta dengan Dehidrasi pada Anak melalui Pendekatan Epidemiologik Klinik. Ringkasan Disertasi, Airlangga University Press, 1987.
 83. Sutoto : Angka Kematian Bayi dan Upaya Penurunannya di Indonesia. Majalah Kesehatan Masyarakat Indonesia, Tahun XV No. 5: 283-289, 1984.
 84. Tantular K : Diare karena Infeksi Parasit. Pidato Pengukuhan Guru Besar Fakultas Kedokteran Universitas Airlangga, 1988.
 85. Tumbelaka W.A.F.J. and Sunoto : Death Due to Diarrhea: Before and After National Rehydration Program. Paediatr. Indones., 18:319-327, 1978.
 86. Vanhoof R., Vanderlinden M.P., Dierickx R., Lauwers S., Yourassowsky E. and Butzler J.P. : Susceptibility of *Campylobacter fetus* subsp. jejuni to Twenty-Nine Antimicrobial Agents. Antimicrob. Agents Chemother., 14(4): 553-556, Oct. 1978.
 87. Vanhoof R., Gordts B., Dierickx R., Coignau H. and Butzler J.P. : Bacteriostatic and Bactericidal Activities of 24 Antimicrobial Agents Against *Campylobacter fetus* subsp. jejuni. Antimicrob. Agents Chemother., 18(1) : 118-121, July 1980.
 88. Wang W.L.L., Luechtefeld N.W., Blaser M.J. and Reller

- L.B. : Comparison of CampyPak II with Standard 5% Oxygen and Candle Jars for Growth of *Campylobacter jejuni* from Human Feces. *J. Clin. Microbiol.*, 16(2): 291-294, Aug. 1982.
89. Wang W.L.L., Powers B.W., Luechtefeld N.W. and Blaser M.J. : Effects of Disinfectants on *Campylobacter jejuni*. *Appl. Environ. Microbiol.*, 45(4):1202-1205, Apr. 1983.
90. Wasito E.B., Atasiati Idajadi dan Liek Sunarni Djupri : Usaha Isolasi Kuman *Campylobacter fetus* subspecies *jejuni* dari Tinja Anak-anak dengan Diare. *PELITA DIP* 1982/1983.
91. Wasito E.B. : Perhitungan Jumlah Kuman dalam Cairan. *Majalah Teknologi Kesehatan Indonesia* ISSN 0215-1707, No.1 Th.2, halaman 6-12, Agustus-Oktober 1986.
92. Wempe J.M., Genigeorgis C.A., Farver T.B. and Yusufu H.I. : Prevalence of *Campylobacter jejuni* in Two California Chicken Processing Plants. *Appl. Environ. Microbiol.*, 45(2): 355-359, Feb. 1983.
93. Woodard G. : Principles in Drug Administration cited in *Methods of Animal Experimentation* edited by William I Gay, Vol. I, New York and London. Academic Press, 1965, p. 343-359.
94. Young D.M., Ji Biae, Zhang Zheng, Hadler J. and Edberg S.C. : Isolation of *Campylobacter jejuni* in

Hunan, The People's Republic of China : Epidemiology
and Comparison of Chinese and American Methodology.
Diagn. Microbiol. Infect. Dis., 5(2): 143-149, July
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Tabel 1. Penghitungan cara tetes konsentrasi sel kuman dalam biakan cair hasil pengeraman 2 koloni kuman *Campylobacter fetus* subspecies jejuni pada medium CA-YE secara mikroaerofilik selama 2X24 jam pada suhu 37°C.

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1	32,0 X 10 ⁷
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6	26,0 X 10 ⁷
7	33,0 X 10 ⁷
8	28,0 X 10 ⁷
9	28,0 X 10 ⁷
10	27,3 X 10 ⁷
11	29,0 X 10 ⁷
12	26,0 X 10 ⁷

Mean = 27,76 X 10⁷

Median = 28,00 X 10⁷

Modus = 26,00 X 10⁷ dan 28,00 X 10⁷

Varians = 9,37 X 10¹⁴

Deviasi standard = 3,06 X 10⁷

Tabel 2. Penghitungan cara tetes konsentrasi sel kuman dalam biakan cair sebelum dan sesudah dipusingkan dengan kekuatan sebesar 2000Xg selama 20 menit.

Pemeriksaan	Konsentrasi sel kuman (m.o/ml)		
	sebelum pemusingan	sesudah pemusingan	
1	24,0 X 10 ⁷	22,0 X 10 ⁷	
2	28,0 X 10 ⁷	26,0 X 10 ⁷	
3	30,0 X 10 ⁷	30,0 X 10 ⁷	
4	30,0 X 10 ⁷	30,0 X 10 ⁷	
5	26,0 X 10 ⁷	24,0 X 10 ⁷	
6	34,0 X 10 ⁷	32,0 X 10 ⁷	
N	N for test	Wilcoxon Statistic	Estimated Center
6	6	21 X 10 ⁷	29,00 X 10 ⁷
6	6	21 X 10 ⁷	27,00 X 10 ⁷

P = 0,036

Tabel 3a. Perbandingan berat usus dan berat badan sisa hewan percobaan kelompok kontrol 1-4 jam sesudah diberi medium cair casamino acid-yeast extract secara intragastrik.

Jam sesudah perlakuan	Hewan percobaan	Berat badan (g) saat otopsi	Berat usus (g) (G)	Berat badan sisa (g) (B-G)	(G) (B-G)
1	1	127,98	10,23	117,75	0,087
	2	102,95	6,67	96,28	0,069
2	3	130,36	9,91	120,45	0,082
	4	98,08	5,36	92,72	0,058
3	5	133,76	9,60	124,16	0,077
	6	105,95	6,30	99,65	0,063
4	7	143,56	8,99	134,57	0,067
	8	100,98	7,84	93,14	0,084

Tabel 3b. Perbandingan berat usus dan berat badan sisa hewan percobaan kelompok perlakuan 1-4 jam sesudah diberi supernatan biakan cair *Campylobacter fetus* subspecies jejuni secara intragastrik.

Jam sesudah perlakuan	Hewan percobaan	Berat badan (g) saat otopsi	Berat usus (g) (G)	Berat badan sisa (g) (B-G)	(G) (B-G)
1	1	134,42	9,15	125,27	0,073
	2	137,78	10,19	127,19	0,080
2	3	139,30	10,43	128,87	0,081
	4	131,36	9,47	121,89	0,078
3	5	130,80	8,96	121,84	0,074
	6	120,96	8,69	112,27	0,077
4	7	127,52	8,40	119,12	0,071
	8	121,06	8,60	112,46	0,077

ROWS: jam

COLUMNS: grup

	1	2
1	0,073000 0,080000	0,087000 0,069000
2	0,081000 0,078000	0,082000 0,058000
3	0,074000 0,077000	0,077000 0,083000
4	0,071000 0,077000	0,067000 0,084000

ROW	C11	C12	C13
1	0,073	1	1
2	0,080	1	1
3	0,081	2	1
4	0,078	2	1
5	0,074	3	1
6	0,077	3	1
7	0,071	4	1
8	0,077	4	1
9	0,087	1	2
10	0,069	1	2
11	0,082	2	2
12	0,058	2	2
13	0,077	3	2
14	0,063	3	2
15	0,067	4	2
16	0,084	4	2

ANALYSIS OF VARIANCE ON C11

SOURCE	DF	SS	MS
C12	3	0,0000407	0,0000136
C13	1	0,0000360	0,0000360
ERROR	11	0,0008330	0,0000757
TOTAL	15	0,0009097	

Variance Ratio

Subyek	: 0,18	(P > 0,01)
Perlakuan	: 0,48	(P > 0,01)
Residual	: 1	

THE REGRESSION EQUATION IS
 $\text{ratioc} = 0,0752 - 0,00075 \cdot \text{waktu}$

COLUMN	COEFFICIENT	ST. DEV. OF COEF.	T-RATIO = COEF/S. D.
	0,075250	0,009901	7,60
waktu	-0,000750	0,003615	-0,21

S = 0,01143

R-SQUARED = 0,7 PERCENT

R-SQUARED = 0,0 PERCENT, ADJUSTED FOR D. F.

ANALYSIS OF VARIANCE

DUE TO	DF	SS	MS=SS/DF	F
REGRESSION	1	0,0000056	0,0000056	0,043
RESIDUAL	6	0,0007842	0,0001307	
TOTAL	7	0,0007899		

THE REGRESSION EQUATION IS
 $\text{ratiotx} = 0,0793 - 0,00115 \cdot \text{waktu}$

COLUMN	COEFFICIENT	ST. DEV. OF COEF.	T-RATIO = COEF/S. D.
	0,079250	0,002972	26,67
waktu	-0,001150	0,001085	-1,06

S = 0,003431

R-SQUARED = 15,8 PERCENT

R-SQUARED = 1,7 PERCENT, ADJUSTED FOR D. F.

ANALYSIS OF VARIANCE

DUE TO	DF	SS	MS=SS/DF	F
REGRESSION	1	0,00001322	0,00001322	1,12
RESIDUAL	6	0,00007065	0,00001177	
TOTAL	7	0,00008387		

THE REGRESSION EQUATION IS
 $\text{ratioe} = 0,0492 + 0,000205 \text{ BBotes}$

COLUMN	COEFFICIENT	ST. DEV. OF COEF.	T-RATIO = COEF/S. D.
	0,04922	0,02730	1,80
BBotes	0,0002048	0,0002292	0,89

S = 0,01078

R-SQUARED = 11,7 PERCENT

R-SQUARED = 0,0 PERCENT, ADJUSTED FOR D.F.

ANALYSIS OF VARIANCE

DUE TO	DF	SS	MS=SS/DF	F
REGRESSION	1	0,0000928	0,0000928	0,80
RESIDUAL	6	0,0006971	0,0001162	
TOTAL	7	0,0007899		

THE REGRESSION EQUATION IS
 $\text{ratioTx} = 0,0536 + 0,000175 \text{ BBotTs}$

COLUMN	COEFFICIENT	ST. DEV. OF COEF.	T-RATIO = COEF/S. D.
	0,05356	0,02496	2,15
BBotTs	0,0001749	0,0001912	0,91

S = 0,003503

R-SQUARED = 12,2 PERCENT

R-SQUARED = 0,0 PERCENT, ADJUSTED FOR D.F.

ANALYSIS OF VARIANCE

DUE TO	DF	SS	MS=SS/DF	F
REGRESSION	1	0,00001027	0,00001027	0,84
RESIDUAL	6	0,00007361	0,00001227	
TOTAL	7	0,00008387		

Tabel 4a. Penurunan berat badan hewan percobaan kelompok kontrol 1-5 hari sesudah diberi air suling steril secara intragastrik.

Hari sesudah perlakuan	Hewan percobaan	Berat badan (g) saat perlakuan	otopsi	Penurunan berat badan (g)	(%)
1	1	120,0	115,55	4,45	3,71
2	2	112,3	105,98	6,32	5,63
3	3	104,5	96,98	7,52	7,20
4	4	107,7	98,08	9,62	8,93
5	5	118,6	105,95	12,65	10,67

Tabel 4b. Penurunan berat badan hewan percobaan kelompok perlakuan 1-5 hari sesudah diberi suspensi kuman *Campylobacter fetus subspecies jejuni* secara intragastrik.

Hari sesudah perlakuan	Hewan percobaan	Berat badan (g) saat perlakuan	otopsi	Penurunan berat badan (g)	(%)
1	1	115,0	109,22	5,78	5,03
2	2	117,5	110,00	7,50	6,38
3	3	122,5	113,49	9,01	7,36
4	4	130,0	119,26	10,74	8,26
5	5	122,5	101,39	21,11	17,23

THE REGRESSION EQUATION IS
 $PetdBB = 15,3 - 0,072 BBTx$

COLUMN	COEFFICIENT	ST. DEV. OF COEF.	T-RATIO = COEF/S. D.
	15,35	25,98	0,59
BBTx	-0,0721	0,2304	-0,31

S = 3,095

R-SQUARED = 3,2 PERCENT

R-SQUARED = 0,0 PERCENT, ADJUSTED FOR D.F.

ANALYSIS OF VARIANCE

DUE TO	DF	SS	MS=SS/DF	F
REGRESSION	1	0,939	0,939	0,10
RESIDUAL	3	28,736	9,579	
TOTAL	4	29,675		

THE REGRESSION EQUATION IS
 $PetdBBT = -24,7 + 0,276 BBTxT$

COLUMN	COEFFICIENT	ST. DEV. OF COEF.	T-RATIO = COEF/S. D.
	-24,70	55,70	-0,44
BBTxT	0,2761	0,4580	0,60

S = 5,272

R-SQUARED = 10,8 PERCENT

R-SQUARED = 0,0 PERCENT, ADJUSTED FOR D.F.

ANALYSIS OF VARIANCE

DUE TO	DF	SS	MS=SS/DF	F
REGRESSION	1	10,10	10,10	0,36
RESIDUAL	3	83,38	27,79	
TOTAL	4	93,49		

THE REGRESSION EQUATION IS
 $P_{ctdBB} = 0,0638 BBT_x$

COLUMN	COEFFICIENT	ST. DEV. OF COEF.	T-RATIO = COEF/S. D.
NOCONSTANT			
BBT _x	0,06379	0,01123	5,68

S = 2,832

ANALYSIS OF VARIANCE

DUE TO	DF	SS	MS=SS/DF
REGRESSION	1	258,82	258,82
RESIDUAL	4	32,08	8,02
TOTAL	5	290,89	

THE REGRESSION EQUATION IS
 $P_{ctdBBt} = 0,0732 BBT_xT$

COLUMN	COEFFICIENT	ST. DEV. OF COEF.	T-RATIO = COEF/S. D.
NOCONSTANT			
BBT _{xT}	0,07322	0,01733	4,22

S = 4,713

ANALYSIS OF VARIANCE

DUE TO	DF	SS	MS=SS/DF
REGRESSION	1	396,43	396,43
RESIDUAL	4	68,65	22,21
TOTAL	5	465,28	

$$s^2 = \frac{(n_1-1)s_1^2 + (n_2-1)s_2^2}{(n_1-1) + (n_2-1)}$$

$$t = \frac{b' - b}{s \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$b' = 0,07322$$

$$s_1 = 0,01733$$

$$n_1 = 5$$

$$b = 0,06379$$

$$s_2 = 0,01123$$

$$n_2 = 5$$

$$t_{hitung} = 1,021$$

$$t_{tabel} (df=8, 0,01, 1 arah) = 2,896$$

THE REGRESSION EQUATION IS
 $PctdBB = 2,06 + 1,72 \text{ hari}$

COLUMN	COEFFICIENT	ST. DEV. OF COEF.	T-RATIO = COEF/S. D.
	2,06200	0,08990	22,94
hari	1,72200	0,02710	63,53

S = 0,08571

R-SQUARED = 99,9 PERCENT

R-SQUARED = 99,9 PERCENT, ADJUSTED FOR D.F.

ANALYSIS OF VARIANCE

DUE TO	DF	SS	MS=SS/DF	F
REGRESSION	1	29,653	29,653	4236,4
RESIDUAL	3	0,022	0,007	
TOTAL	4	29,675		

THE REGRESSION EQUATION IS
 $PctdBBt = 0,97 + 2,63 \text{ hari}$

COLUMN	COEFFICIENT	ST. DEV. OF COEF.	T-RATIO = COEF/S. D.
	0,968	2,992	0,32
hari	2,6280	0,9023	2,91

S = 2,853

R-SQUARED = 73,9 PERCENT

R-SQUARED = 65,2 PERCENT, ADJUSTED FOR D.F.

ANALYSIS OF VARIANCE

DUE TO	DF	SS	MS=SS/DF	F
REGRESSION	1	69,064	69,064	8,48
RESIDUAL	3	24,442	8,141	
TOTAL	4	93,486		

THE REGRESSION EQUATION IS
 $PetdBB = 2.28 \text{ hari}$

COLUMN NOCONSTANT	COEFFICIENT	ST. DEV. OF COEF.	T-RATIO = COEF/S. D.
hari	2.2844	0.1329	17.19

S. = 0.9858

ANALYSIS OF VARIANCE

DUE TO	DF	SS	MS=SS/DF
REGRESSION	1	287.01	287.01
RESIDUAL	4	3.89	0.97
TOTAL	5	290.89	

THE REGRESSION EQUATION IS
 $PetdBBT = 2.89 \text{ hari}$

COLUMN NOCONSTANT	COEFFICIENT	ST. DEV. OF COEF.	T-RATIO = COEF/S. D.
hari	2.8920	0.3389	8.53

S = 2.514

ANALYSIS OF VARIANCE

DUE TO	DF	SS	MS=SS/DF
REGRESSION	1	460.00	460.00
RESIDUAL	4	25.27	6.32
TOTAL	5	485.28	

$$s^2 = \frac{(n_1-1)s_1^2 + (n_2-1)s_2^2}{(n_1-1) + (n_2-1)}$$

$$t = \frac{b' - b}{s \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$b' = 2,8920$$

$$s_1 = 0,3389$$

$$n_1 = 5$$

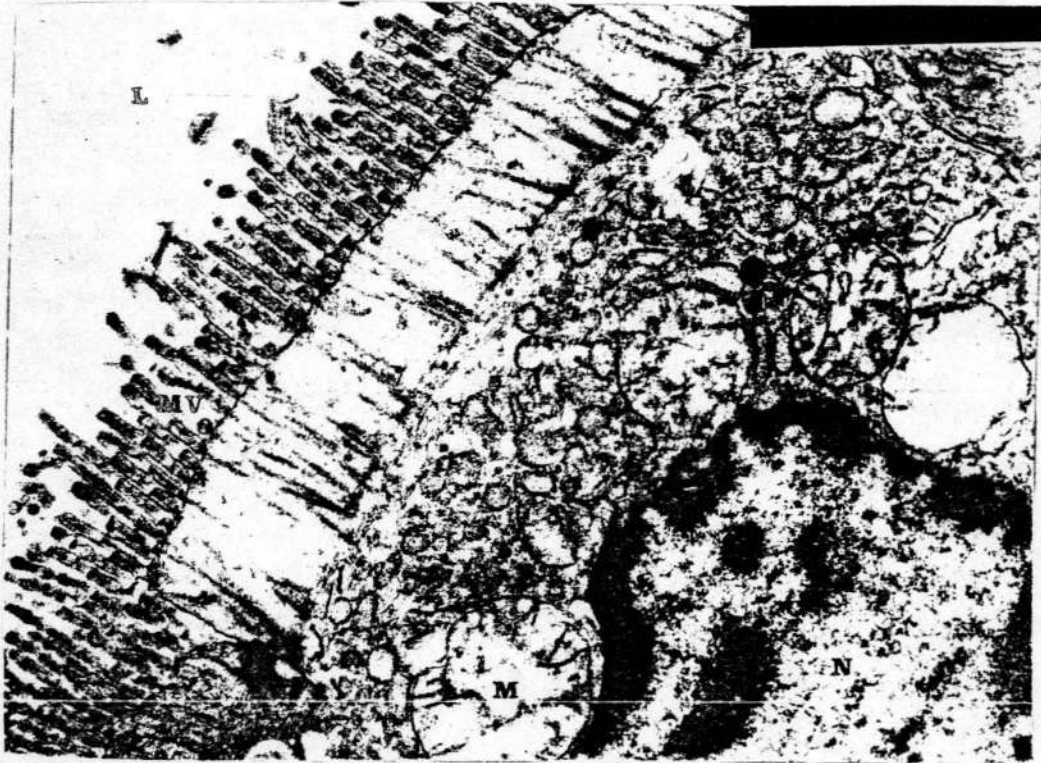
$$b = 2,2844$$

$$s_2 = 0,1329$$

$$n_2 = 5$$

$$t_{hitung} = 3,732$$

$$t_{tabel} (df=8, \alpha=0,01, 2\text{-arah}) = 2,896$$

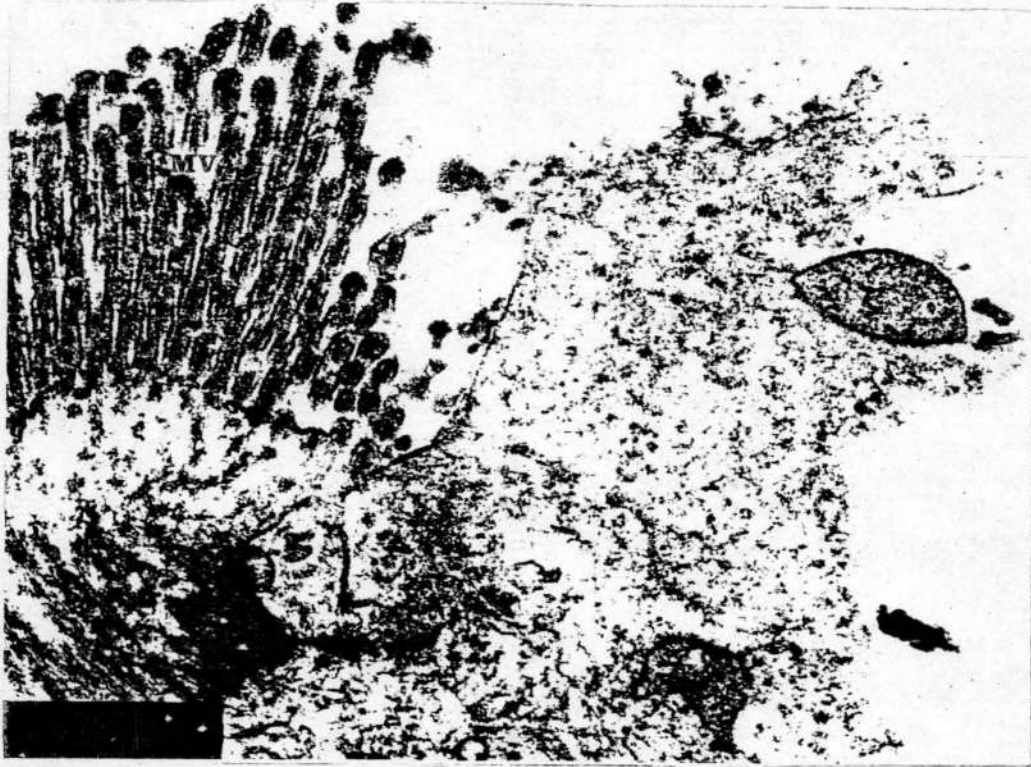


Gambar 1 : Foto elektromikrograf sel epithel usus halus tikus Wistar jantan dewasa normal (8.000 kali)
L : lumen; MV : mikrovilli; M : mitokondria;
N : inti sel.



Gambar 2 : Foto elektromikrograf mikrovilli sel epithel usus halus tikus Wistar jantan dewasa yang diberi suspensi *Campylobacter fetus subsp. jejuni*. Tampak kuman subyek penelitian merusak mikrovilli (15.000 kali).

L : lumen; C : *Campylobacter fetus subsp. jejuni*; MV : mikrovilli.



Gambar 3 : Foto elektromikrograf sel epitel usus halus tikus Wistar jantan dewasa yang diberi suspensi *Campylobacter fetus subsp. jejuni*. Isi sel epitel usus tampak keluar dan tampak pula kuman subyek penelitian (15.000 kali).

C : *Campylobacter fetus subsp. jejuni*;

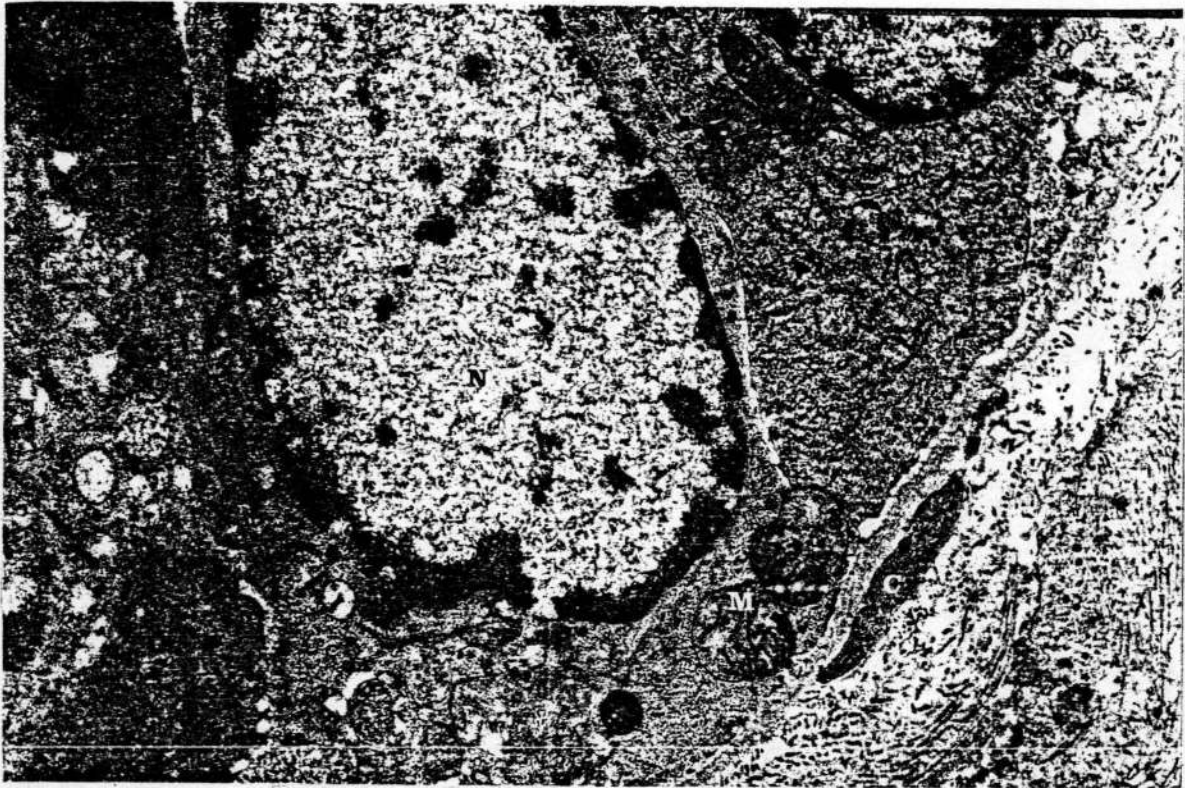
MV : mikrovilli.



Gambar 4 : Foto elektromikrograf sel epitel usus halus tikus Wistar jantan dewasa yang diberi suspen-
si *Campylobacter fetus subspecies jejuni*.
Tampak beberapa kuman subyek penelitian di
dalam sel (15.000 kali).

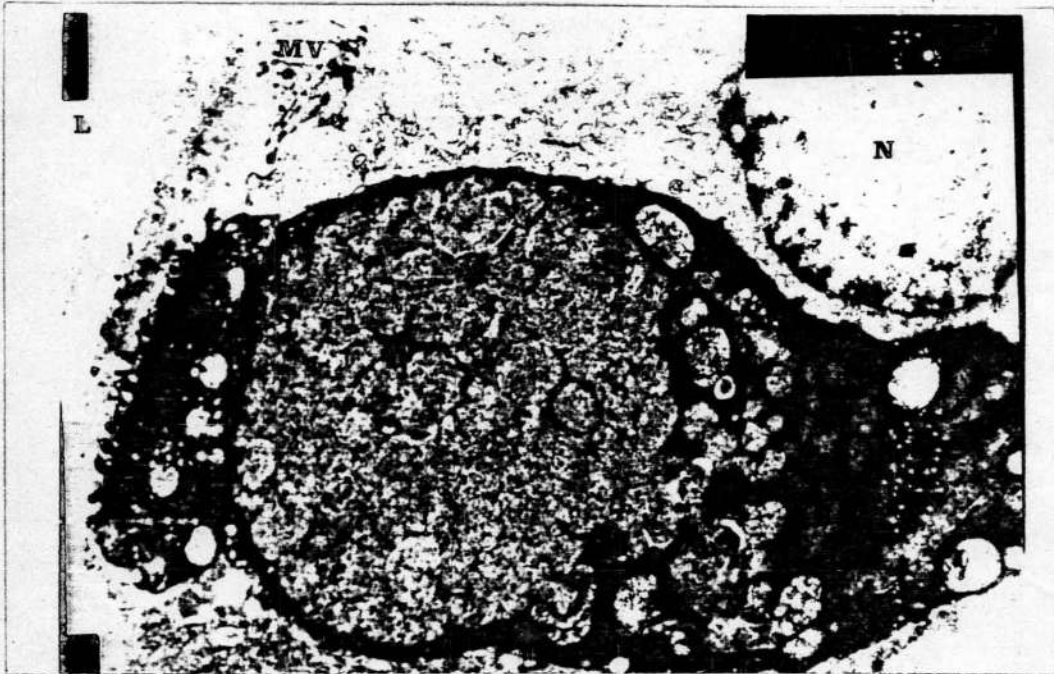
C : *Campylobacter fetus subspecies jejuni*;

ER : endoplasmik retikulum.



Gambar 5 : Foto elektromikrograf sel epitel usus halus tikus Wistar jantan dewasa yang diberi suspensi *Campylobacter fetus subspecies jejuni*. Tampak kuman subyek penelitian berada di lamina propria (6.000 kali).

N : inti sel; M : mitokondria; C : *Campylobacter fetus subspecies jejuni*.



Gambar 6 : Foto elektromikrograf sel epithel usus halus tikus Wistar jantan dewasa yang diberi suspen-
si *Campylobacter fetus subspecies jejuni*.
Tampak sel darah putih polimorfonuklear menuju ke arah lumen usus (5.000 kali).
L: lumen; MV : mikrovilli; N : inti sel.

- 60(4): 605-613, 1982.
82. Soeparto P. : Studi mengenai Gastroenteritis Akuta dengan Dehidrasi pada Anak melalui Pendekatan Epidemiologik Klinik. Ringkasan Disertasi, Airlangga University Press, 1987.
 83. Sutoto : Angka Kematian Bayi dan Upaya Penurunannya di Indonesia. Majalah Kesehatan Masyarakat Indonesia, Tahun XV No. 5: 283-289, 1984.
 84. Tantular K : Diare karena Infeksi Parasit. Pidato Pengukuhan Guru Besar Fakultas Kedokteran Universitas Airlangga, 1988.
 85. Tumbelaka W.A.F.J. and Sunoto : Death Due to Diarrhea: Before and After National Rehydration Program. Paediatr. Indones., 18:319-327, 1978.
 86. Vanhoof R., Vanderlinden M.P., Dierickx R., Lauwers S., Yourassowsky E. and Butzler J.P. : Susceptibility of *Campylobacter fetus* subsp. jejuni to Twenty-Nine Antimicrobial Agents. Antimicrob. Agents Chemother., 14(4): 553-556, Oct. 1978.
 87. Vanhoof R., Gordts B., Dierickx R., Coignau H. and Butzler J.P. : Bacteriostatic and Bactericidal Activities of 24 Antimicrobial Agents Against *Campylobacter fetus* subsp. jejuni. Antimicrob. Agents Chemother., 18(1) : 118-121, July 1980.
 88. Wang W.L.L., Luechtefeld N.W., Blaser M.J. and Reller