

Bibliography Related To The Electrogastrogram

Kenneth Koch

History Of EGG

- Alvarez WC. New methods of studying gastric peristalsis. *J Am Med Assoc* 1922;22:1281-1284.
- Tumpeer IH, Blitzsten PW. Registration of peristalsis by the Einthoven galvanometer. *Am J Dis Child* 1926;21:454-455.
- Tumpeer IH, Phillips B. Hyperperistaltic electrographic effects. *Am J Med Sci* 1932;18:831-836.
- Stern RM, Stacher G. Recording the electrogastrogram from parts of the body surface distant from the stomach. *Psychophysiol* 1982;19:350.
- Davis RC, Garafolo L, Gault FP. An exploration of abdominal potentials. *J Compar Physiol Psychol* 1957;50:519-523.
- Davis RC, Garafolo L, Kveim K. Conditions associated with gastrointestinal activity. *J Compar Physiol Psychol* 1959;52:466-475.
- Cannon WB, Washburn AL. An explanation of hunger. *Am J Physiol* 1912;29:441-454.
- Carlson, AJ. The relation between the contractions of the empty stomach and the sensation of hunger. *Am J Physiol* 1912; 31:175-192.
- Russell RW, Stern RM. Gastric motility: The electrogastrogram. In P.H. Venables and I. Martin (Eds.), A manual of psychophysiological methods, Amsterdam: North-Holland Publishing Co. 1967;pp. 219-243.
- Mintchev MP, Kingma YJ, Bowes KL. Accuracy of cutaneous recordings of gastric electrical activity. *Gastroenterol* 1993;104:1273-1280.
- Mintchev MP, Bowes KL. Extracting quantitative information from digital electrogastrograms. *Med Biolog Eng Comput* 1996;34:244-248.
- Dubois A., Mizrahi M. Electrogastrography, gastric emptying, and gastric motility. In J.Z. Chen and R.W. McCallum (Eds.), Electrogastrography, Principles and Applications, New York: Raven Press, 1994;pp. 247-256.
- Stern RM, Koch KL, Stewart WR, Lindblad I M. Spectral analysis of tachygastria recorded during motion sickness. *Gastroenterol* 1987;92:92-97.
- Holz R, Loffler K, Muller GM. On conjoint gastrography or what the surface gastrograms show. In R. M. Stern and K.L. Koch (Eds.), Electrogastrography, New York: Praeger, 1985;pp89-115.
- Stevens JK, Worrall N. External recording of gastric activity: The electrogastrogram. *Physiol Psychol* 1974;2:175-180.

Bibliography Related To The Electrogastrogram

Kenneth Koch

- Sobakin MA, Smirnov IP, Mishin LN. Electrogastrography. *IRE Transactions in Bio-Medical Electronics* 1962;9:129-132.
- Martin A, Thouvenot J, Touron P. Periodic changes in abdominal cutaneous potentials in relation to digestive activity. *C.R. Social Biology* (Paris) 1967;161:2595-2600.
- Murat J, Dobrev J, Vaur JL, Nicolov NA. (Eds.). Enregistrements Electriques de la motricite digestive: applications medico-chirurgicales. [Electrical recordings of digestive motility: Medical-surgical applications]. Tours, France: University of Tours, 1975.
- Nelsen TS, Kohatsu S. Clinical electrogastrography and its relationship to gastric surgery. *Am J Surg* 1968;116:215-222.
- Brown BH, Smallwood R, Duthie HL, Stoddard CJ. Intestinal smooth muscle electrical potentials recorded from surface electrodes. *Med Biol Eng* 1975;11:97-103.
- Smallwood RH. Analysis of gastric electrical signals from surface electrodes using phase-lock techniques. Part 2 C System performance with gastric signals. *Med Biol Eng Comput* 1978;16:513-518.
- Smout, AJPM, van der Schee EJ, Grashuis JL. What is measured in electrogastrography? *Dig Dis Sci* 1980;25:179-187.
- Koch KL, Stewart WR, Stern RM: The relationship between the cutaneously recorded electrogastrogram and antral contractions in man. In: Stern RM, Koch KL, Eds. *Electrogastrography: Methodology, Validation and Applications*. New York: Praeger Publishers, 1985;116-131.
- Harm DL, Sandoz GR, Stern RM. Changes in gastric myoelectrical activity during space flight. *Dig Dis Sci* 2002;47:1737-1745.

Physiology Of Electrogastrography

- Koch KL, Stern RM. Functional disorders of the stomach. *Seminars in Gastrointestinal Disease* 1996;4:185-195.
- Hinder RA, Kelley KA. Human gastric pacesetter potential: Sight of origin, spread, and response to gastric transection and proximal vagotomy. *Am J Surg* 1997;133:29-33.
- Lin HC, Hasler WL. Disorders of gastric emptying. In: *Textbook of Gastroenterology*. Ed. T. Yamada. J.B. Lippincott Company, Philadelphia, PA, 1995, pp1318-1346.
- Thunberg L. Interstitial cells of Cajal. In: *The Handbook of Physiology, The Gastrointestinal System*, Section 6, Vol. 1, Part 1. Ed. JD Wood, Bethesda, MD, 1989;pp349-386.
- Huisinga JD. Physiology and pathophysiology of the interstitial cell of Cajal: From bench to bedside II. Gastric Motility: Lessons from mutant mice on slow waves and innervation. *Am J Physiol* 2001;281:G1129-G1134.

Bibliography Related To The Electrogastrogram

Kenneth Koch

- Kim TW, Beckett EAH, Hanna R, Koh SD, Ordog T, Ward SM, Sanders KM. Regulation of pacemaker frequency in the murine gastric antrum. *J Physiol (London)*;2002;538:145-157.
- Koch KL. The Stomach: Electrogastrography. In: *Atlas of Gastrointestinal Motility*. Eds. M Schuster, M Crowell, and KL Koch. B.C. Decker, Inc. Publishing, Ontario, Canada, 2002, pp185-201.
- Szurzewski JH. Electrical basis for gastrointestinal motility. In: *Physiology of the Gastrointestinal Tract, Second Edition*. Ed. LR Johnson, New York, Raven, 1987;pp383-422.
- Hamilton JW, Bellahsene BE, Reicherldefer M, Webster JH, Bass P. Human electrogastrograms. Comparison of surface and mucosal recordings. *Dig Dis Sci* 1986;31:33-39.
- You CH, Lee KY, Chey WY, et al. Electrogastrographic study of patients with unexplained nausea, bloating and vomiting. *Gastroenterol* 1980;79:311-314.
- Lacey BE, Koch KL, Crowell MD. The stomach: Normal function and clinical disorders. Manometry. In: *Atlas of Gastrointestinal Motility*. Eds. M Schuster, M Crowell, KL Koch. B.C. Decker, Inc. Publishing, Ontario, Canada, 2002;pp135-150.
- Geldof H, van der Schee EJ, Grashuis JL. Electrogastrographic characteristics of the interdigestive migrating complex in humans. *Am J Physiol* 1986;250:G165-171.
- Meyer JE. Motility of the stomach in gastroduodenal junction. In: *Physiology of the Gastrointestinal Tract*. Ed. LR Johnson, Raven Press, New York, NY, 1987;pp393-410.
- Malbert CH, Ruckebusch Y. Relationships between pressure and flow across the gastroduodenal junction in dogs. *Am J Physiol* 1991;260:G653-G657.
- Bolondi L, Bortolotti MS, Calletti T, Galani S, Labo G. Measurement of gastric emptying by real-time ultrasonography. *Gastroenterol* 1985;89:752-759.
- Urbain JL, VanCutsem E, Siegel JA, Mayeur S, Vandercruys A, Janssens, J, DeRoo M, Vantrappen G. Visualization and characterization of gastric contractions using a radionuclide technique. *Am J Physiol* 1990;259:G1062-G1067.
- Koch KL, Stewart WR, Stern RM. Effect of barium meals on gastric electromechanical activity in man. A fluoroscopic-electrogastrographic study. *Dig Dis Sci* 1987;32:1217-1222.
- Gilja OH, Detmer PR, Jong JM, Leotta DF, Li X-N, Beach KW, Martin R, Strandness DE. Intra-gastric distribution and gastric emptying assessed by three-dimensional ultrasonography. *Gastroenterol* 1997;113:38-49.
- Koch KL, Hong S-P, Xu L. Reproducibility of gastric myoelectrical activity and the water load test in patients with dysmotility-like dyspepsia symptoms and in control subjects. *J Clin Gastroenterol* 2000;31(2):125-129.

Bibliography Related To The Electrogastrogram

Kenneth Koch

- VerHagen MA, Luijk HC, Samson M, Smout AJMP. Effect of meal temperature on the frequency of gastric myoelectrical activity. *Neurogastroenterol Motil* 1998;10:175-181.
- Hinder RA, Kelly KA. Human gastric pacesetter potential. Site of origin, spread, and response to gastric transection and proximal gastric vagotomy. *Am J Surg* 1997;133:29-33.
- You CH, Chey WY, Lee KY, Menguy R, Bortoff A. Gastric and small intestinal myoelectrical dysrhythmia associated with chronic intractable nausea and vomiting. *Ann Intern Med* 1981;95:449-453
- Hamilton JW, Bellahsene BE, Reichelderfer M, Webster JG, Bass P. Human electrogastrograms. Comparison of surface and mucosal recordings. *Dig Dis Sci* 1986;31:33-39.
- Lin C, Chen JDZ, Schirmer BD, McCallum RW. Postprandial response of gastric slow waves: Correlation of serosal recordings with the electrogastrogram. *Dig Dis Sci* 2000;45:645-651.
- Xu L, Koch KL, Gianaros PJ, Schreiber IR, Ku M, Rolls BJ. The effects of soup, casserole, and water ingestion on gastric myoelectrical activity and perception of hunger and fullness. *Am J Gastroenterol* 2002;122:326A.
- Stern RM, Crawford HE, Stewart W, Vasey MW, Koch KL. Sham feeding: cephalic-vagal influences on gastric myoelectrical activity. *Dig Dis Sci* 1989; 34:521-527.
- Stern RM, Jokerst MD, Levine ME, Koch KL. The stomach's response to unappetizing food: Cephalic-vagal effects on gastric myoelectrical activity. *Neurogastroenterol Motil* 2001;13:1-4.

How To Record Electrogastrograms

- Koch KL, Stern RM. Electrogastrographic data acquisition and analysis: The Penn State experience. In J.Z. Chen and R.W. McCallum (Eds.) Electrogastrography, New York: Raven Press, 1994:pp 31-44.
- Smout AJPM, Jebbink HJA, Samsom M. Acquisition and analysis of electrogastrographic data: The Dutch experience. In J.Z. Chen and R.W. McCallum (Eds.) Electrogastrography, New York: Raven Press, 1994:pp 3-30.
- Stern RM, Koch KL, Muth ER. Gastrointestinal system. In J.T. Cacioppo, L.G. Tassinari, & G.G. Berntson (Eds.) Handbook of Psychophysiology, 2nd edition, New York: Cambridge University Press, 2000:pp 294-314.
- Mirizzi N, Scafoglieri U. Optimal directions of the electrogastrographic signal in man. *Med Biol Eng Comp* 1983;21:385-389.
- Stern RM, Koch KL, Leibowitz HW, Lindblad IM, Shupert CL, Stewart WR. Tachygastria and motion sickness. *Aviat Space Environ Med* 1985;56:1074-1077.
- Chen JDZ, Zou XP, Lin XM, Ouyang S, Liang J. Detection of gastric slow wave propagation from the cutaneous electrogastrogram. *Am J Physiol* 1996;277:G424-G430.

Bibliography Related To The Electrogastrogram

Kenneth Koch

McNearney T, Lin X, Shrestha J, Lisse J, Chen JDZ. Characterization of gastric myoelectrical rhythms in patients with systemic sclerosis using multichannel surface electrogastrography. *Dig Dis Sci* 2002;47:690-698.

Stern RM, Stacher G. Recording the electrogastrogram from parts of the body surface distant from the stomach. *Psychophysiol* 1982;19:350.

Koch KL, Hong S-P, Xu L. Reproducibility of gastric myoelectrical activity and the water load test in patients with dysmotility-like dyspepsia symptoms and in control subjects. *J Clin Gastroenterol* 2000;31(2):125-129.

Koch KL. Electrogastrography. In: *Atlas of Gastrointestinal Motility*. Eds. M Schuster, M Crowel, and KL Koch. B.C. Decker, Inc. Publishing, Hamilton, Ontario, Canada, 2002.

Handbook of Electrogastrography. Eds. KL Koch and RM Stern. Oxford Press, New York, 2003.

How To Analyze The EGG

Stern RM, Koch RM, Leibowitz HW, Lindblad IM, Shupert CL, Stewart WR. Tachygastria and motion sickness. *Aviat Space Envir Med* 1985;56:1074-1077.

Stern RM, Koch KL, Muth ER. The Gastrointestinal System. In: *Handbook of Psychophysiology; 2nd Edition*. Eds. JT Cacioppo, LG Tassinari, and GG Bentson. Cambridge University Press, Cambridge, 2000, pp294-314.

Koch KL. Electrogastrography. In: *Atlas of Gastrointestinal Motility*. Eds. M Schuster, M Crowel, and KL Koch. B.C. Decker, Inc. Publishing, Ontario, Canada, 2002.

Koch KL, Hong S-P, Xu L. Reproducibility of gastric myoelectrical activity and the water load test in patients with dysmotility-like dyspepsia symptoms and in control subjects. *J Clin Gastroenterol* 2000;31(2):125-129.

Van der Schee EJ, Smout AJPM, Grashuis JL. Application of running spectrum analysis to electrogastrographies signals recorded from dog and man. In M. Wienbeck (Ed.), Motility digestive tract, New York: Raven Press, 1982:pp 241-250.

Chen J. Signal processing and analysis. *Neurogastroenterol* 2000;3:104-112.

Geldof H, van der Schee EJ, van Blankenstein M, Grashuis JL. Electrogastrographic study of gastric myoelectrical activity in patients with unexplained nausea and vomiting. *Gut* 1986;27:799-808.

Brzana RJ, Bingaman S, Koch KL. Gastric myoelectrical activity in patients with gastric outlet obstruction and idiopathic gastroparesis. *Am J Gastroenterol* 1998;93:1083-1089.

Kingma YJ. The electrogastrogram and its analysis. *Critical Reviews in Biomedical Engineering* 1989;17:105-132.

Bibliography Related To The Electrogastrogram

Kenneth Koch

Lin Z, Chen JZ. Comparison of three spectral analysis methods. In J.Z. Chen and R.W. McCallum (Eds.), Electrogastrography New York, Raven Press, 1994;pp75-102.

Chen JD, Stewart WR, McCallum RW. Spectral analysis of episodic rhythmic variations in the cutaneous electrogastrogram. *IEEE Transactions on Biomedical Engineering* 1993;40:128-135.

Stern RM, Koch KL, Stewart WR, Lindblad IM. Spectral analysis of tachygastria recorded during motion sickness. *Gastroenterol* 1987;92:92-97.

Holz R, Loffler K, Muller GM. On conjoint gastrography or what the surface gastrogram shows. In R. M. Stern and K.L. Koch (Eds.), Electrogastrography, New York: Praeger, 1985;pp 89-115.

Chen JZ, McCallum RW. Electrogastrographic parameters and their clinical significance. In J.Z. Chen and R.W. McCallum (Eds.), Electrogastrography, New York; Raven Press, 1994;pp45-74.

Smout AJPM, Jebbink HJA, Samsom M. Acquisition and analysis of electrogastrographic data: The Dutch experience. In J.Z. Chen and R.W. McCallum (Eds.), Electrogastrography, New York: Raven Press, 1994;pp 3-30.

VerHagen MAMT, van Schelven CJ, Samson M, Smout AJPM. Pitfalls in the analysis of electrogastrographic recordings. *Gastroenterol* 1999;117:453-460.

Tachygastrias

Koch KL. Electrogastrography. In: *Atlas of Gastrointestinal Motility*. Eds. M Schuster, M Crowell, and KL Koch. B.C. Decker, Inc. Publishing, Hamilton, Ontario, Canada, 2002.

Hinder RA, Kelley KA. Human gastric pacesetter potential: Site of origin, spread, and response to gastric transection and proximal vagotomy. *Am J Surg* 1997;133:29-33.

Smout AJPM, van der Schee EJ, Grashuis JL. What is measured in electrogastrography? *Dig Dis Sci* 1980;25:179-187.

You CH, Chey WY, Lee KY, Menguy R, Bortoff A. Gastric and small intestinal myoelectric dysrhythmia associated with chronic intractable nausea and vomiting. *Ann Intern Med* 1981;95:449-451.

Familoni BO, Bowes KL, Kingma WJ, Cote KR. Can transcutaneous recordings detect gastric electrical abnormalities? *Gut* 1991;32:141-146.

Koch KL, Stern RM, Vasey M, Botti JJ, Creasy GW, Dwyer A. Gastric dysrhythmias and nausea of pregnancy. *Dig Dis Sci* 1990; 35:961-968.

Bibliography Related To The Electrogastrogram

Kenneth Koch

- Amaris MA, Sanmiguel CP, Sadowski DC, Bowes KL, Minthev MP. Electrical activity from colon overlaps with normal gastric electrical activity in cutaneous recordings. *Dig Dis Sci* 2002;47:2480-2485.
- VerHagan MAMT, van Schelven AJ, Samsom M, Smout AJPM. Pitfalls of the analysis of electrogastrographic recordings. *Gastroenterol* 1999;117:453-460.
- Abell TL, Malagelada J-R. Glucagon-evoked gastric dysrhythmias in humans shown by an improved electrogastrographic technique. *Gastroenterol* 1985;88:1932-1940.
- Stern RM, Leibowitz HW, Unblad I, Shupert C, Steward WR, Koch KL. Tachygastria and motion sickness. *Aviat Space Environ Med* 1985; 56:1074-1077.
- Geldof H, van der Schee EJ, van Blankenstein M, Grashuis JL. Electrogastrographic study of gastric myoelectrical activity in patients with unexplained nausea and vomiting. *Gut* 1986;27:799-808.
- Chen J, Schirmer BD, McCallum RW. Serosal and cutaneous recordings of gastric myoelectrical activity in patients with gastroparesis. *Am J Physiol* 1994;206:G90-G98.
- Chaap HM, Smout AJPM, Akkermans LM. Myoelectric activity of the Bilioth II gastric remnant. *Gut* 1990;31:984-988.
- Thunberg L. Interstitial cells of Cajal. In: *The Handbook of Physiology, The Gastrointestinal System*, Section 6, Vol. 1, Part 1. Ed. JD Wood, Bethesda, MD, 1989;pp349-386.
- Huisinga JD. Physiology and pathophysiology of the interstitial cell of Cajal: From bench to bedside II. Gastric Motility: Lessons from mutant mice on slow waves and innervation. *Am J Physiol* 2001;281:G1129-G1134.
- Kim TW, Beckett EAH, Hanna R, Koh SD, Ordog T, Ward SM, Sanders KM. Regulation of pacemaker frequency in the murine gastric antrum. *J Physiol (London)*;2002;538:145-157.
- Koch KL, Hong S-P, Xu L. Reproducibility of gastric myoelectrical activity and the water load test in patients with dysmotility-like dyspepsia symptoms and in control subjects. *J Clin Gastroenterol* 2000;31(2):125-129.
- Jebbink HJA, Bruijs PPM, Varvenboer B, Akkermans LMA, van Berge-Henegouwen GP, Smout AJPM. Gastric myoelectrical activity in patients with type I diabetes mellitus and autonomic neuropathy. *Dig Dis Sci* 1994;39:2376-2383.
- Schreibman I, Xu L, Carusone S, Horowitz E, Goldfarb C, Weinstock R, Koch KL. Water load test unmasks nausea, bloating and tachygastria in patients with type 2 diabetes mellitus. *Neurogastroenterol Motil* 2001;13:274.
- Hasler WL, Soudah HC, Dulai G, Owang C. Mediation of hyperglycemia-evoked gastric slow wave dysrhythmias by endogenous prostaglandins. *Gastroenterol* 1995;108:727-736.

Bibliography Related To The Electrogastrogram

Kenneth Koch

- Sarna S. In vivo myoelectrical activity: Methods, analysis and interpretation. In: *Handbook of Physiology: The Gastrointestinal System*. Schultz S, Wood JD, Eds. Baltimore, MD, Waverly Press, 1989;pp817-863.
- Stoddard CJ, Smallwood RH, Duthie HL. Electrical arrhythmias in the human stomach. *Gut* 1981;22:705-712.
- Kim CG, Hanson RB, Abell TL, Malagelada J-R. Effect of inhibition of prostaglandin synthesis on epinephrine-induced gastroduodenal electromechanical changes in humans. *Mayo Clin Proceed* 1989;64:149-157.
- Xu L, Koch KL, Summy-Long J, Stern RM, Seaton JF, Harrison TS, Demers LM, Bingaman S. Hypothalamic and gastric myoelectrical responses during vection-induced nausea in healthy Chinese subject. *Am J Physiol* 1993;265:E578-E584.
- Uijtjehaage SHJ, Stern RM, Koch KL. Effects of eating on vection-induced motion sickness, cardiac vagal tone and gastric myoelectrical activity. *Psychophysiology* 1992;29:193-201.
- Koch KL, Stern RM: Functional disorders of the stomach. *Seminars in Gastroenterology* 1990; 1:23-36.
- Kohagen KR, Kim MS, McDonnell WM, Chey WD, Owyang C, Hasler WL. Nicotine effects of prostaglandin-dependent gastric slow wave rhythmicity and antral motility in non-smokers and smokers. *Gastroenterol* 1996;110:3-11.
- Walsh JW, Hasler WL, Nugent CE, et al. Progesterone and estrogen are potential mediators of gastric slow wave dysrhythmias in nausea of pregnancy. *Am J Physiol* 1996;270:G506-G514.
- Ordog T, Baldo M, Danko R, Sanders KM. Plasticity of electrical pacemaking by interstitial cells of Cajal and gastric dysrhythmias in W/W^v mutant mice. *Gastroenterol* 2002;123:2028-2040.
- Koch KL, Dwyer A, Jeffries GH. Electromechanical effects of indomethacin on in vivo rabbit ileum. *Am J Physiol* 1986; 250:G135-G139.
- Devane SP, Ravelli AM, Bisset WM, Smith VV, Lake BD, Milla PJ. Gastric antral dysrhythmias in children with chronic idiopathic intestinal pseudoobstruction. *Gut* 1992;33:1477-1481.
- Boeckxstaens GE, Hirsch DP, van den Elzen B DJ, Heisterkamp SH, Tytgat GN. Impaired drinking capacity in patients with functional dyspepsia: Relationship with proximal stomach function. *Gastroenterol* 2001;121:1054-1064.
- Gilija OH, Hausken T, Wilhelmsen I, Berstad A. Impaired accommodation of proximal stomach to a meal in functional dyspepsia. *Dig Dis Sci* 1996;41:689-696.
- Gilija OH, Detmer PR, Jong JM, Leotta DF, Li X-N, Beach KW, Martin R, Strandess DE. Intra-gastric distribution and gastric emptying assessed by three-dimensional ultrasonography. *Gastroenterol* 1997;113:38-49.

Bibliography Related To The Electrogastrogram

Kenneth Koch

Noar M, Koch KL, Xu L. Spectrum of gastric neuromuscular dysfunction in patients with GERD and dysmotility-like functional dyspepsia (GERD+). *Am J Gastroenterol* 2002;122:416A.

Code CF, Marlett JA. Canine tachygastria. *Mayo Clin Proc* 1974;49:325-332.

Mintchev M, Otto SJ, Boes KL. Electrogastrography can recognize gastric electrical uncoupling in dogs. *Gastroenterol* 1997;112:2006-2011.

Lin Z, Chen JDZ, Schirmer BD, McCallum RW. Postprandial response of gastric slow waves: Correlation of serosal recordings with the electrogastrogram. *Dig Dis Sci* 2000;45:645-651.

Bradycastrias And Mixed Gastric Dysrhythmias

Koch KL. Electrogastrography. In: *Atlas of Gastrointestinal Motility*. Eds. M Schuster, M Crowell, and KL Koch. B.C. Decker, Inc. Publishing, Ontario, Canada, 2002.

Hinder RA, Kelley KA. Human gastric pacesetter potential: Site of origin, spread, and response to gastric transection and proximal vagotomy. *Am J Surg* 1997;133:29-33.

Smout AJPM, van der Schee EJ, Grashuis JL. What is measured in electrogastrography? *Dig Dis Sci* 1980;25:179-187.

You CH, Chey WY, Lee KY, Menguy R, Bortoff A. Gastric and small intestinal myoelectric dysrhythmia associated with chronic intractable nausea and vomiting. *Ann Intern Med* 1981;95:449-451.

Familoni BO, Bowes KL, Kingma WJ, Cote KR. Can transcutaneous recordings detect gastric electrical abnormalities? *Gut* 1991;32:141-146.

Koch KL, Stern RM, Vasey M, Botti JJ, Creasy GW, Dwyer A. Gastric dysrhythmias and nausea of pregnancy. *Dig Dis Sci* 1990; 35:961-968.

Amaris MA, Sanmiguel CP, Sadowski DC, Bowes KL, Mintchev MP. Electrical activity from colon overlaps with normal gastric electrical activity in cutaneous recordings. *Dig Dis Sci* 2002;47:2480-2485.

VerHagan MAMT, van Schelven AJ, Samsom M, Smout AJPM. Pitfalls of the analysis of electrogastrographic recordings. *Gastroenterol* 1999;117:453-460.

Koch KL, Hong S-P, Xu L. Reproducibility of gastric myoelectrical activity and the water load test in patients with dysmotility-like dyspepsia symptoms and in control subjects. *J Clin Gastroenterol* 2000;31(2):125-129.

Parkman HP, Miller MA, Trate D, Knight LC, Urbain J-L, Maurer AH, Fisher RS. Electrogastrography in gastric emptying scintigraphy are complimentary for assessment of dyspepsia. *J Clin Gastroenterol* 1997;24:214-219.

Bibliography Related To The Electrogastrogram

Kenneth Koch

- Koch KL, Stern RM, Stewart WR, Vasey MW. Gastric emptying and gastric myoelectrical activity in patients with symptomatic diabetic gastroparesis: Effects of long-term domperidone treatment. *Am J Gastroenterol* 1989; 84:1069-1075.
- Brzana RJ, Bingaman S, Koch KL. Gastric myoelectrical activity in patients with gastric outlet obstruction and idiopathic gastroparesis. *Am J Gastroenterol* 1998;93:1083-1089.
- Koch KL, Stern RM, Vasey M, Dwyer A. Gastric dysrhythmias and nausea of pregnancy. *Dig Dis Sci* 1987;32:919.
- Sun WM, Smout AJPM, Malbert C, Edelbroek MAL, Jones K, Dent J, Horowitz M. Relationship between surface electrogastrography and antropyloric pressures. *Am J Physiol* 1995;268:G424-G430.
- Lind JF, Duthie HL, Schlegel JF, Code CF. Motility of the gastric fundus. *Am J Physiol* 1961;201:197-202.
- VerHagan MAMT, Luijk HD, Samson M, Smout AJPM. Effect of meal temperature on the frequency of gastric electrical activity. *Neurogastroenterol* 1998;10:175-181.
- Lin HC, Zho X-T, Chung B, Gu Y-G, Elashoff JD. Frequency of gastric pacesetter potential depends on volume and site of distention. *Am J Physiol* 1996;270:G470-G475.
- Ladabaum U, Brown MB, Pan W, Owyang C, Hasler WL. Effects of nutrients and serotonin 5-HT₃ antagonism on symptoms evoked by distal gastric distention in humans. *Am J Physiol* 2001;280:G201-G208.
- San Miguel CP, Mintchev MP, Bowes KL. Dynamics of level of randomness of electrogastrograms can be indicative of gastric electrical uncoupling in dogs. *Dig Dis Sci* 1999;44:523-528.
- Ordog T, Baldo M, Danko R, Sanders KM. Plasticity of electrical pacemaking by interstitial cells of Cajal and gastric dysrhythmias in W/W^v mutant mice. *Gastroenterol* 2002;123:2028-2040.
- Pezzolla F, Riezzo G, Maselli MA, Giorgio I. Electrical activity recorded from abdominal surface after gastrectomy or colectomy in humans. *Gastroenterol* 1989;97:313-320.
- Amaris MA, Sanmiguel CP, Sadowski DC, Bowes KL, Minthev MP. Electrical activity from colon overlaps with normal gastric electrical activity in cutaneous recordings. *Dig Dis Sci* 2002;47:2480-2485.
- Koch KL. Electrogastrography. In: *Atlas of Gastrointestinal Motility*. Eds. M Schuster, M Crowel, and KL Koch. B.C. Decker, Inc. Publishing, Hamilton, Ontario, Canada, 2002.
- Koch KL, Xu L, Noar M. Gastric myoelectrical and emptying activity in patients with gastroesophageal reflux disease (GERD) and dysmotility-like functional dyspepsia (GERD+): Effect of water load test. *Am J Gastroenterol* 2001;96:526.

Bibliography Related To The Electrogastrogram

Kenneth Koch

Clinical Applications Of Electrogastrography

Alvarez W. The electrogastrogram and what it shows. *JAMA* 1922;78:1116-1119.

You CH, Lee KY, Chey WY et al. Electrogastrographic study of patients with unexplained nausea, bloating and vomiting. *Gastroenterol* 1980;79:311-314.

You CH, Chey WY, Lee KY, Menguy R, Bortoff A. Gastric and small intestinal myoelectrical dysrhythmia associated with chronic intractable nausea and vomiting. *Ann Int Med* 1981;95:449-453.

Chen JDZ, Schirmer BD, McCallum RW. Serosal and cutaneous recordings of gastric myoelectrical activity in patients with gastroparesis. *Am J Physiol* 1994;266:G90-G98.

Smout AJPM, van der Schee EJ, Grashuis JL. What is measured in electrogastrography? *Dig Dis Sci* 1980;25:179-187.

Familoni BO, Bowes KL, Kingma YJ, Cote KR. Can transcutaneous recordings detect gastric electrical abnormalities? *Gut* 1991;32:141-146.

Stern RM, Koch KL, Leibowitz HW, Lindblad MS, Shupert CL, Stewart WR. Tachygastria and motion sickness. *Aviat Space Environ Med* 1985;56:1074-1077.

Stern RM, Koch KL, Stewart WR, Lindblad IM. Spectral analysis of tachygastria recorded during motion sickness. *Gastroenterol* 1987; 92:92-97.

Koch KL, Stern RM, Vasey M, Botti JJ, Creasy GW, Dwyer A. Gastric dysrhythmias and nausea of pregnancy. *Dig Dis Sci* 1990; 35:961-968.

Jednak MA, Shadigian EM, Kim MS, Woods ML, Hooper FG, Owang C, Hasler WL. Protein meals reduce nausea and gastric slow wave dysrhythmic activity in first trimester pregnancy. *Am J Physiol* 1999;277:G855-G861.

Brzana RJ, Bingaman S, Koch KL. Gastric myoelectrical activity in patients with gastric outlet obstruction and idiopathic gastroparesis. *Am J Gastroenterol* 1998;93:1083-1089.

Koch KL, Stern RM, Stewart WR, Vasey MW. Gastric emptying and gastric myoelectrical activity in patients with symptomatic diabetic gastroparesis: Effects of long-term domperidone treatment. *Am J Gastroenterol* 1989; 84:1069-1075.

Abell TL, Camilleri M, Hench VS, Malagelada J-R. Gastric electromechanical function and gastric emptying in diabetic gastroparesis. *Eur J Gastroenterol Hepatol* 1991;3:163-167.

Bibliography Related To The Electrogastrogram

Kenneth Koch

- Jebbink HJA, Bruijs PPM, Varvenboer B, Akkermans LMA, van Berge-Henegouwen GP, Smout AJPM. Gastric myoelectrical activity in patients with type I diabetes mellitus and autonomic neuropathy. *Dig Dis Sci* 1994;39:2376-2383.
- Abell TL, Malagelada J-R. Glucagon-evoked gastric dysrhythmias in humans shown by an improved electrogastrographic technique. *Gastroenterol* 1985;88:1932-1940.
- Kim CH, Hanson RB, Abell TL, Malagelada J-R. Effect of inhibition of prostaglandin synthesis on epinephrine-induced gastroduodenal electro-mechanical changes in humans. *Mayo Clin Proceed* 1989;64:149-157.
- Kim MS, Chey WD, Owyang C, Hasler WL. Role of plasma vasopressin as a mediator of nausea and gastric slow waves dysrhythmias in motion sickness. *Am J Physiol* 1997;G853-G862.
- Caras SD, Soykian I, Beverly V, Lin Z, McCallum RW. The effect of intravenous vasopressin on gastric myoelectrical activity in human subjects. *Neurogastroenterol* 1997;9:151-156.
- Kohagen KR, Kim MS, McDonnell WM, Chey WD, Owyang C, Hasler WL. Nicotine effects on prostaglandin-dependent gastric slow wave rhythmicity and antral motility in nonsmokers and smokers. *Gastroenterol* 1996;110:3-11.
- Ladabaum U, Koshy SS, Woods ML, Hooper FG, Owyang C, Hasler WL. Differential symptomatic and electrogastrographic effects of distal and proximal human gastric distention. *Am J Physiol* 1999;275:G418-G424.
- Walsh JW, Hasler WL, Nugent CE, Owyang C. Progesterone and estrogen are potential mediators of gastric slow wave dysrhythmias in nausea of pregnancy. *Am J Physiol* 1996;270:G506-G514.
- Liberski SM, Koch KL, Atnip RG, Stern RM. Ischemic gastroparesis: Resolution after revascularization. *Gastroenterol* 1990; 99:252-257.
- Balaban DH, Chen J, Lin Z, Tribble CG, McCallum RW. Median arcuate ligament syndrome: Possible cause of idiopathic gastroparesis. *Am J Gastroenterol* 1997;92:519-523.
- Owyang C, Hasler WL. Physiology and pathophysiology of the interstitial cells of Cajal: From bench to bedside VI pathogenesis and therapeutic approaches to human gastric dysrhythmias. *Am J Physiol* 2002;283:G8-G15.
- Rothstein RD, Alavai A, Reynolds JC. Electrogastrography in patients with gastroparesis and effect of long-term cisapride. *Dig Dis Sci* 1993;38:1518-1524.
- Cucchiara S, Minella R, Riezzo G, Vallone G, Vallone P, Castellone F, Auricchio S. Reversal of gastric electrical dysrhythmias by cisapride in children with functional dyspepsia: Report of three cases. *Dig Dis Sci* 1992;37:1136-1140.

Bibliography Related To The Electrogastrogram

Kenneth Koch

- Bersherdas K, Leahy A, Mason I, Harbord M, Epstein O. The effect of cisapride on dyspepsia symptoms and the electrogastrogram in patients with non-ulcer dyspepsia. *Aliment Pharmacol Ther* 1998;12:755-759.
- Muth ER, Jokerst M, Stern RM, Koch KL. Effects of dimenhydrinate on gastric tachyarrhythmia and symptoms of vection-induced motion sickness. *Aviat Space Environ Med* 1995;66:1041-1045.
- Hu S, Stern RM, Koch KL. Acustimulation relieves vection-induced motion sickness. *Gastroenterol* 1992;102:1854.
- McCallum RW, Chen JDZ, Lin ZY, Schirmer BD, William RD, Ross R. Gastric pacing improves emptying in symptoms in patients with gastroparesis. *Gastroenterol* 1998;114:456-461.
- Koch KL, Hong S-P, Xu L. Reproducibility of gastric myoelectrical activity and the water load test in patients with dysmotility-like dyspepsia symptoms and in control subjects. *J Clin Gastroenterol* 2000;31(2):125-129.
- Parkman HP, Miller MA, Trate D, Knight LC, Urbain J-L, Maurer AH, Fisher RS. Electrogastrography in gastric emptying scintigraphy are complimentary for assessment of dyspepsia. *J Clin Gastroenterol* 1997;24:214-219.
- Talley NJ, Stanghellini V, Heading RC, Koch KL, Malagelada JR, Tytgat GNJ. Functional gastroduodenal disorders. *Gut* 1999;45(II):1137-1142.
- Koch KL, Stern RM. Functional Disorders of the Stomach. *Seminars in Gastroenterology* 1996;7:185-195.
- Koch KL. Approach to the Patient with Nausea and Vomiting. In: *Textbook of Gastroenterology*, 2nd Edition, Ed. T. Yamada, J.B. Lippincott Co, Philadelphia, PA, 1995,pp731-749.
- Stanghellini V, Tosetti C, Paternico A, Barbara G, Morselli-Labate AM, Monetti N, Marengo M, Corinaldesi R. Risk indicators of delayed gastric emptying of solids in patients with functional dyspepsia. *Gastroenterol* 1996;110:1038-1042.
- Lin Z, Eaker EY, Sarosiek I, McCallum RW. Gastric myoelectrical activity and gastric emptying in patients with functional dyspepsia. *Am J Gastroenterol* 1999;94:2384-2389.
- Koch KL. Gastroduodenal Motility. In: *Clinical Practice in Gastroenterology*. Ed. LJ Brandt. Current Medicine, Churchill Livingstone, Philadelphia, 1998;pp199-210.
- Koch KL. Electrogastrography. In: *Atlas of Gastrointestinal Motility*. Eds. M Schuster, M Crowel, and KL Koch. B.C. Decker, Inc. Publishing, Hamilton, Ontario, Canada, 2002;pp185-201.
- Brzana RJ, Koch KL. Intractable nausea presenting as gastroesophageal reflux disease. *Ann Intern Med* 1997;126:704-707.

Bibliography Related To The Electrogastrogram

Kenneth Koch

- Koch KL, Xu L, Hong S-P. Spectrum of gastric dysrhythmias and gastric emptying in 54 patients with chronic unexplained nausea and vomiting. *Gastroenterol* 2000;118(4):A849.
- Noar M, Koch KL, Xu L. Spectrum of gastric neuromuscular dysfunction in patients with GERD and dysmotility-like functional dyspepsia (GERD+). *Am J Gastroenterol* 2002;122:416A.
- Stoddard CJ, Smallwood R, Brown BH, Duthie HL. The immediate and delayed effects of different types of vagotomy on human gastric myoelectrical activity. *Gut* 1975;16:165-170.
- Miller LS, Szych GA, Kantor SB, Bromer MQ, Knight LC, Maurer AH, Fisher RS, Parkman HP. Treatment of idiopathic gastroparesis with injection of Botulinum toxin into the pyloric sphincter muscle. *Am J Gastroenterol* 2002;97:1653-1660.
- Koch KL, Tran T, Bingaman S, Sperry N. Gastric myoelectrical activity in fasted and fed premature and term infants. *J Gastrointestinal Motility* 1993;5:41-47.
- Cucchiara S, Salvia G, Scarcella A, Rapagiolo S, Borrelli O, Boccia G, Riezzo G, Ciccimarra F. Gestational maturation of electrical activity of the stomach. *Dig Dis Sci* 1999;44:2008-2013.
- Liang J, Co E, Zhang M, Pineda J, Chen JDZ. Development of gastric slow waves in pre-term infants measured by electrogastrography. *Am J Physiol* 1998;274:G503-508.
- VerHagen MAMT, VanSchelven CJ, Samson M, Smout AJPM. Pitfalls in the analysis of electrogastrographic recordings. *Gastroenterol* 1999;117:453-460.
- Evans A, Sammuels S, Marshall C, Bertolucci L. Suppression of pregnancy induced nausea and vomiting with sensory afferent stimulation. *J Reproductive Med* 1993;8:603-606.