

VI. UPDATED BIBLIOGRAPHY

A. PHYSIOLOGICAL REACTIONS TO HYPOXIA

1. Cohn HE, Sacks EJ, Heyman MA, Rudolph AM. Cardiovascular responses to hypoxaemia and academia in fetal lambs. *AM J Obstet Gynecol* 1974, 120: 817-824. **
2. Dawes GS, Mott JC, Shelley HJ. The importance of cardiac glycogen for the maintenance of life in fetal lambs and newborn animals during anoxia. *J Physiol* 1959, 146: 516-538. **
3. Fisher DJ, Heymann MA, Rudolph AM. Myocardial oxygen and carbohydrate consumption in fetal lambs in utero and in adult sheep. *Am J Of Physiol* 1980, 238:399-405.
4. Goldaber K, Gilstrap L, Leveno K, Dax J, McIntyre DD. Pathologic fetal academia. *Obstet Gynecol* 1991, 78:1103-1107.
5. Greene KR, Rosén KG. Intrapartum asphyxia. In: Levene MI, Bennet MJ, Punt J, editors. *Fetal and neonatal neurology and neurosurgery*. Edinburgh, London, Melbourne and New York: Churchill Livingstone, 1995: 265-272. **
6. Hökegård KH, Eriksson BO, Kjellmer I, Magno R, Rosén KG. Myocardial metabolism in relation to electrocardiographic changes and cardiac function during graded hypoxia in the fetal lamb. *Acta Physiol Scand* 1981, 113:1-7.
7. Itskovitz J, LaGamma EF, Rudolph AM. Heart rate and blood pressure responses to umbilical cord compression in fetal lambs with special reference to the mechanism of variable deceleration. *Am J Obstet Gynecol* 1983 Oct 15, 147(4): 451-457.
8. Kjellmer I. Prenatal and intrapartum asphyxia. In: *Fetal and Neurology and Neurosurgery*. Eds Levene M et al. Churchill Livingstone, 1988: 357-369.
9. Lagercrantz H, Bistoletti P. Catecholamine release in the newborn infant at birth. *Pediatric Research* 1977, 11:889-893.
10. Low JA, Galbraith RS, Muir DW, Killen HL, Pater EA & Karchmar EJ. Factors associated with motor and cognitive deficits in children after intrapartum hypoxia. *Am J Obstet Gynecol* 1984, 148(5): 533-539. **
11. Murphy KW, Johnson P, Moorcraft J, Pattinson R, Russell V & Turnbull Sir A. Birth asphyxia and the intrapartum cardiotocograph. *Br J Obstet Gynecol* 1990,97: 470-479.
12. Nylund L, Lagercrantz H, Lunell N.O. Catecholamines in fetal blood during birth in man. *J Dev Physiol* 1979,1: 271-435.
13. Peebles DM. Cerebral hemodynamics and oxygenation in the fetus: the role of intrapartum near-infrared spectroscopy. *Clin Perinatal* 1997,24: 547-565.
14. Richardson BS, Carmichael L, Homan J, Johnston L, Gagnon R. Fetal cerebral, circulatory, and metabolic responses during heart rate decelerations with umbilical cord compression. *Am J Obstet Gynecol* 1996,175(4 Pt 1): 929-936.

15. Rosén KG, Dagbjartsson A, Henriksson BA, Lagercrantz H, Kjellmer I. The relationship between circulating catecholamines and ST waveform in the fetal lamb electrocardiogram during hypoxia. *Am J Obstet Gynecol* 1984,149:190-195.
16. Rosén KG, Lilja H, Hökegård KH, Kjellmer I. The relationship between cerebral cardio-vascular and metabolic functions during labour in the lamb fetus and newborn. Academic Press, London. 1985. **
17. Su JY, Friedman WF. Comparison of the responses of fetal and adult cardiac muscle to hypoxia. *Am J Physiol*, 1973,224(6): 1249-1253. **
18. Thiringer K, Karlsson K, Rosén KG, Kjellmer I. Contribution of heart muscle, liver, skeletal muscle and placenta to the asphyxial hypo-xanthine elevation in the acutely exteriorized fetal lamb. *Biol Neonate* 1984,54: 169-182. **
19. Rosén KG. Alterations in the fetal electrocardiogram as a sign of fetal asphyxia. *Pediatrics*, 1976. **
20. Dagbjartsson A, Kjellmer I, Rosén KG. Acute blockade of β_1 -receptors in the asphyxiated sheep fetus. *Acta Physiol Scand* 1987,130: 381-385. **
21. Dagbjartsson A, Herbertsson G, Stefansson TS, Kjeld M, Lagercrantz H, Rosén KG. Beta-adrenoceptor agonists and hypoxia in sheep fetuses. *Acta Physiol Scand* 1989,137: 291-299. **
22. Fisher DJ, Heymann MA, Rudolph AM. Fetal myocardial oxygen and carbohydrate consumption during acutely induced hypoxemia. *Am Physiol Soc* 1982: H657-H661. **
23. Lagercrantz H, Slotkin TA. The stress of being born. *Sci Am* 1986,254(4): 92-118. **
24. Mott JC. The ability of young mammals to withstand total oxygen lack. *Brit Med Bull*, 1961: 144-147. **
25. Richardson BS, Carmichael L, Homan J, Patrick J. Electrocardiographic activity, electroocular activity, and breathing movements in fetal sheep with prolonged and graded hypoxemia. *Am J Obstet Gynecol* 1992 Aug 167(2): 553-558. **
26. Rosén KG, Kjellmer I. Changes in the fetal heart rate and ECG during hypoxia. *Acta physiol scand* 1975,93: 59-66. **
27. Shelley HJ. Glycogen reserves and their changes at birth and in anoxia. *Brit Med Bull*, 1961,17(2): 137-143. **
28. Parer JT, Krueger TR, Harris JL. Fetal oxygen consumption and mechanisms of heart rate response during artificially produced late decelerations of fetal heart rate in sheep. *Am J Obstet Gynecol* 1980 Feb 15,136(4): 478-482. **
29. Hökegård KH, Karlsson K, Kjellmer I, Rosén KG. ECG-changes in the fetal lamb during asphyxia in relation to beta-adrenoceptor stimulation and blockade. *Acta physiol scand* 1979,105: 195-203. **
30. Widmark C, Hökegård KH, Lagercrantz H, Lilja H, Rosén KG. Electrocardiographic waveform changes and catecholamine responses during acute hypoxia in the immature and mature fetal lamb. *Am J Obstet Gynecol* 1989 May, 160(5): 1245-1250. **
31. Widmark C, Lindcrantz K, Murray H, Rosén KG. Changes in the PR, RR and ST waveform of the fetal lamb electrocardiogram with acute hypoxemia, *J Dev Physiol* 1992; 18: 99-103.
32. Rosén KG, Isaksson O. Alterations in fetal heart rate and ECG correlated to glycogen, creatine phosphate and ATP levels during graded hypoxia. *Biol Neonate* 1976; 30: 17-24.

B. THE CTG

33. Editorial. Intrapartum fetal monitoring-a disappointing story. *N Eng J Med* 1990,322: 624-626.
34. Ingemarsson I, Ingemarsson E. Elektronisk fosterövervakning, Student litterateur 1987.
35. Itskovitz J, LaGamma EF, Rudolph AM. Heart rate and blood pressure responses to umbilical cord compression in fetal lambs with special reference to the mechanism of variable deceleration. *Am J Obstet Gynecol* 1983,147(4): 451-457.
36. Larsen JF. Why has conventional intrapartum cardiotocography not given the expected results?. *J Perinat Med* 1996,24: 15-23. **
37. MacDonald D, Grant A, Sheridan-Pereira M et al. The Dublin randomized controlled trial of intrapartum fetal heart rate monitoring. *Am J Obstet Gynecol* 1985, 152:524-539. **
38. Nelson KB, Dambrosia JM, Ting TY, Grether JK. Uncertain value of electronic fetal monitoring in predicting cerebral palsy. *N Eng J Med* 1996,334: 613-618. **
39. Richardson BS, Carmichael L, Homan J, Johnston L, Gagnon R. Fetal cerebral circulatory and metabolic responses during heart rate deceleration with umbilical cord compression. *Am J Obstet Gynecol* 1996,175(4 Pt 1): 929-936.
40. Umstad MP, Permezel M, Pepperell RJ. Litigation and the intrapartum cardiotocograph. *Br J Obstet Gynecol* 1995,102: 89-91. **
41. Neilson JP. Cardiotocography during labour. *BMJ* 1993 Feb 6, 306: 347-348. **
42. Greene KR. Intelligent fetal heart rate computer systems in intrapartum surveillance. *Current Opinion in Obstetrics and Gynecology* 1996, 8: 123-127. **
43. Murphy KW, Johnson P, Moorcraft J, Pattinson R, Russell V, Turnbull Sir A. Birth asphyxia and the intrapartum cardiotocograph. *Br J Obstet Gynecol* 1990; 97: 470-479. **
44. Thacker SB. Effectiveness and safety of intrapartum fetal monitoring. In fetal monitoring, ed Spencer JAS, Castle House Publications. 1989, 211-217. **

C. THE ST WAVEFORM OF THE FETAL ELECTROCARDIOGRAM

45. Arulkumaran S, Lilja H, Lindecrantz K et al. Fetal ECG waveform analysis should improve fetal surveillance in labour. *J Perinat Med* 1990,18(1): 13-22. **
46. Greene KG, Dawes GS, Lilja H, Rosén KG. Changes in the ST waveform of the fetal lamb electrocardiogram with hypoxemia. *Am J Obstet Gynecol* 1982,144: 950-957. **
47. Greene KG, Westgate J. The ST waveform. In: Van Geijn HP, Copray FJA, editors. *A critical appraisal of fetal surveillance*. Amsterdam: Elsevier Science B.V., 1994: 388-398. **
48. Greene KR, Rosén KG. Intrapartum asphyxia. In: Levene MI, Bennett MJ, Punt J, editors. *Fetal and neonatal neurology and neurosurgery*. Edinburgh, London, Melbourne and New York: Churchill Livingstone, 1995: 265-272.
49. Greene KR, Rosén KG. Long term ST waveform changes in the ovine fetal electrocardiogram: the relationship to spontaneous labour and intrauterine death. *Clin Phys Physiol Meas* 1989, 10: 33-40.
50. Hon EH, Lee ST. The fetal electrocardiogram of the dying fetus. *Am J Obstet Gynecol* 1963,87:804.
51. Hökegård KH, Eriksson BO, Kjellmer I, Magno R, Rosén KG. Myocardial metabolism in relation to electrocardiographic changes and cardiac function during graded hypoxia in the fetal lamb. *Acta Physiol Scand* 1981,113:1-7. **
52. Johanson RB, Rice C, Shokr A et al. ST waveform analysis of the fetal electrocardiogram could reduce fetal blood sampling. *Br J Obstet Gynecol* 1992,99:167-172.
53. Lilja H, Greene KR, Karlsson K, Rosén KG. ST waveform changes of the fetal electrocardiogram during labour-a clinical study. *Brit J Obstet Gynecol* 1985,92:611-617. **
54. Lilja H, Karlsson K, Lindecrantz K, Rosén KG. Microprocessor based waveform analysis of the fetal electrocardiogram during labor. *Int J Gynecol Obstet* 1989,30:109-116.
55. Lindecrantz K, Lilja H, Widmark C, Rosén KG. The fetal ECG during labour. A suggested standard. *J Biomed Eng* 1988,10:351-353. **
56. Murphy KW, Russell U, Johnson P, Valente J. Clinical assessment of fetal electrocardiogram monitoring in labour. *Br J Obstet Gynecol* 1992,99:32-37.
57. Noble D. *The initiation of the heart beat*. OXFORD University Press, Oxford, 1979.
58. Pardi G, Tucci E, Uderzo A, Zanini D. Fetal electrocardiogram changes in relation to fetal heart rate patterns during labour. *Am J Obstet Gynecol* 1974,118:243-250.
59. Rosén KG, Hökegård KH, Kjellmer I. A study of the relationship between electrocardiogram and haemodynamics in the fetal lamb during asphyxia. *Acta Physiol Scand* 1976,98:275-284.
60. Rosén KG, Arulkumaran S, Greene KG et al. Clinical validity of fetal ECG analysis. In: Sahling E, editor. *Perinatology*. New York: Raven Press, 1992:95-110. **
61. Rosén KG, Dagbjartsson A, Henriksson BA, Lagercrantz H, Kjellmer I. The relationship between circulating catecholamines and ST waveform in the fetal lamb electrocardiogram during hypoxia. *Am J Obstet Gynecol* 1984,149:190-195. **

62. Rosén KG, Hrbeck A, Karlsson K et al. Changes in the ECG and somatosensory-evoked EEG responses during intrauterine asphyxia in the sheep. *Biol Neonate* 1976,30:95-101. **
63. Rosén KG, Isaksson O. Alterations in fetal heart rate and ECG correlated to glycogen, creatine phosphate and ATP levels during graded hypoxia. *Biol Neonate* 1976,30:17-24. **
64. Rosén KG, Kjellmer I. Changes in the fetal heart rate and ECG during hypoxia. *Acta Physiol Scand* 1975,93:59-66. **
65. Rosén KG, Lindecrantz K. STAN: the Gothenburg model for fetal surveillance during labour by ST analysis of the fetal electrocardiogram. *Clin Phys Physiol Meas* 1989,10:51-56. **
66. Rosén KG, Luzietti R. The fetal electrocardiogram: ST waveform analysis during labour. *J Perinat Med* 1994,22:502-512. **
67. Westgate J. An evaluation of electronic fetal monitoring with clinical validation of ST waveform analysis during labour. Doctorial thesis, Department of Obstetrics, Plymouth Postgraduate Medical School, University of Plymouth, UK, 1993. **
68. Westgate J, Harris M, Curnow JSH, Greene KR. Plymouth randomized trial of cardiotocogram only versus ST waveform plus cardiotocogram for intrapartum monitoring: 2,400 cases. *Am J Obstet Gynecol* 1993,166(5): 1151-1160. **
69. Westgate J, Keith RDF, Curnow JSH et al. Suitability of fetal scalp electrode for monitoring the fetal electrocardiogram during labour. *Clin Phys Physiol Meas* 1990,11:297-306. **
70. Widmark C, Jansson T, Lindecrantz K, Rosén KG. ECG waveform, short-term heart rate variability and plasma catecholamine concentrations in response to hypoxia in intrauterine growth retarded guinea pig fetuses. *J Develop Physiol* 1991,15:161-168. **
71. Luzietti R, Erkkola R, Hasbargen U, Mattsson LA, Thoulon JM, Rosén KG. European Community Multi-center Trial "Fetal ECG Analysis During Labor": ST plus CTG analysis. *J Perinat Med* 1999,27:1-10. **
72. Mistry RT, Neilson JP. Intrapartum fetal ECG plus heart rate recording. *The Cochrane Library* 1998,2. **
73. Rosén KG. Alterations in the fetal electrocardiograms as a sign of fetal asphyxia-experimental data with a clinical implementation. *J Perinat Med* 1986,14:355-364. **
74. Rosén KG, Greene KR, Hökegård KH, Karlsson K, Lilja H, Lindecrantz K, Kjellmer I. ST waveform analysis of the fetal ECG-a potent method for fetal surveillance? A presentation of experimental and clinical data. *Cardio Resp Physiol* 1986,133:67-82. **
75. Watanabe T, Okamura K, Tanigawara S, Shintaku Y, Akagi K, Yajima A. Change in electrocardiogram T-Wave amplitude during umbilical cord compression is predictive of fetal condition in sheep. *Am J Obstet Gynecol* 1992, 166(1): 246-255. **
76. Widmark C. Fetal electrocardiogram Relationships to oxygen lack, maturation and growth retardation. An experimental study. Department of Physiology, University of Göteborg, 1991. **
77. Rosén KG, Greene KR. Fetal ECG research news. 1991 July, 2(3). **
78. Outram N. Intelligent pattern analysis of the fetal electrocardiogram. Thesis, University of Plymouth, UK. 1997 **

79. Pipberger HV, Ahzbaeher RC, Berson AS, Briller SA, Brody DA, Flowers NC, Geselowitz DB, Lepschkin E, Oliver GC, Schmitt OH, Spach M. Recommendations for Standardization of Levels of Specifications for Instruments in Electrocardiography and Vectorcardiography. Report of the Committee on Electrocardiography, American Heart Association, 1975, 11-31.
**
80. Sokolow M, McIlroy MB. In clinical cardiology. Lange Medical Publications, Los Altos, California, 1981: 97-112.
81. Lindecrantz K. Processing of the Fetal ECG, An Implementation of Dedicated real-time Microprocessor System. Thesis, Chalmers University of Technology, Technical Report No. 135, 1983.

D. ASSESSMENT OF THE CONDITION OF THE BABY

82. Apgar V. A proposal for a new method of evaluation of the newborn infant. *Anesthesia and Analgesia* 1953,32:260-270.
83. Duerbeck NB, Chaffin DG, Seeds JW. A practical approach to umbilical artery pH and blood gas determinations. *Obstet Gynecol* 1992,79(6): 959-962.
84. Goldaber K, Gilstrap L, Leveno K, Dax J, McIntyre DD. Pathologic fetal acidemia. *Obstet Gynecol* 1991,78:1103-1107. **
85. Green KR, Rosén KG. Intrapartum asphyxia. In:Levene MI, Bennett MJ, Punt J, editors. *Fetal and neonatal neurology and neurosurgery*. Edinburgh, London, Melbourne and New York: Churchill Livingstone, 1995:265-272. **
86. Huch A, Huch R, Rooth G. Guidelines for blood sampling and measurement of pH and blood gas values in obstetrics. *Eur J Obstet Gynecol Repord Biol* 1994,54:165-175.
87. Low J, Galbraith RS, Muir DW, Killen HI, Pater EA, Karchmar EJ. Motor and cognitive deficits after intrapartum asphyxia in the mature fetus. *Am J Obstet Gynecol* 1988,158:356-61.
88. Low JA, Mair DW, Pater EA, Karchmar EJ. The association of intrapartum asphyxia in the mature fetus with newborn behavior. *Am J Obstet Gynecol* 1991,163:1131-1135.
89. Owen P, Farrell TA, Steyn W. Umbilical cord blood analysis; a comparison of two simple methods of sample storage. *Early Hum Dev* 1995,42(1): 67-71.
90. Richards DS, Johnson JWC. The practical implications of cord acid-base studies. *Clin Obstet Gynecol* 1993,36:91-98.
91. Rosén KG, Murphy K. How to assess fetal metabolic acidosis from cord samples. *J Perinat Med* 1991,19:221-226. **
92. Ruth VJ, Raivio KO. Perinatal brain damage: predictive value of metabolic acidosis and Apgar score. *Br Med J* 1988,297:24-27.
93. Sahling E, Langner K. Fetal acid-base measurements in labour. In *Fetal monitoring* (Spencer JAD ed.). Castle House Publications, Tunbridge Wells, UK. 1989:211-217.
94. Westgate J, Garibaldi JM, Green KR. Umbilical cord blood gas analysis at delivery; a time for quality data. *Br J Obstet Gynecol* 1984,101(12): 1054-1063.
95. Westgate J, Harris M, Curnow JSH, Green KR. Plymouth randomized trial of cardiotocogram only versus ST waveform plus cardiotocogram for intrapartum monitoring: 2,400 cases. *Am J Obstet Gynecol* 1993,166(5): 1151-1160. **
96. Westgate J, Rosén KG. Acid-base balance at birth. In: Van Geijn HP, Copray FJA, editors. *A critical appraisal of fetal surveillance*. Amsterdam: Elsevier Science B.V., 1994:595-603. **
97. Gardosi, J, Maeda K. Intrapartum surveillance: recommendations on current practice and overview of new developments. *Int J Gynecol Obstet* 1995 (49): 213-221. **
98. Pello L, Bernard N, Caldeyro-Barcia R, Dawes G, Dunn PM, Geijn H, Huch A, Huch R, Ingemarsson I. Guidelines for the use of fetal monitoring. *Int J Gynecol Obstet* 1987(25): 159-167. **
99. Grether JK, Nelson KB. Maternal infection and cerebral palsy in infants of normal birth weight. *JAMA* 1997 July 16 (278)(3): 207-211. **
100. Low JA. The role of blood gas and acid-base assessment in the diagnosis of intrapartum fetal asphyxia. *Am J Obstet Gynecol* 1988,159:1235-1240. **

101. Low JA. Intrapartum fetal asphyxia: Definition, diagnosis, and classification. *Am J Obstet Gynecol* 1997,176:957-959. **
102. MacLennan A. A template for defining a causal relation between acute intrapartum events and cerebral palsy: international consensus statement. *BMJ* 1999,319:1054-1059. **
103. Frank PH, Vandebussche A, Oepkes D, Keirse MJNC. The merit of routine cord blood pH measurement at birth. *J Perinat Med* 1999,27:158-165. **
104. Westgate JA, Gunn AJ, Gunn TR. Antecedents of neonatal encephalopathy with fetal acidemia at term. *British J of Obstet Gynecol* Aug 1999,106:774-782. **
105. Low JA. The relationship of asphyxia in the mature fetus to long-term neurological function. *Clin Obstet Gynecol* 1993; 36: 82-90 **
106. Westgate J, Greene KR. How well is fetal blood sampling use din clinical practice? *Br J Obstet Gynecol* 1994; 101: 250-251. **
107. Whebble AM, Gillmer MDG, Spencer JAS, Sykes GS. Changes in fetal monitoring practice in the UK: 1997-1984. *Br J Obstet Gynecol* 1989; 96: 1140-1147. **