

RECOMMENDATIONS

1. Planned training programs on beside EEG monitoring for ICU staff may be initiated to facilitate accurate diagnosis of epileptiform activity and other patterns associated with neurological emergencies.
2. EEG is available tool, cost effective more than neuron specific enolase sampling in prognosis of post arrest patients.
3. Additional larger prospective studies are needed to confirm our findings and to verify further whether EEG can be helpful for the prognostic assessment of postanoxic coma.

REFERENCES

1. Jameson, J. N. St C.; Dennis L. Kasper; Harrison, Tinsley Randolph; Braunwald, Eugene; Fauci, Anthony S.; Hauser, Stephen L; Longo, Dan L. (2005). *Harrison's principles of internal medicine*. New York: McGraw-Hill Medical Publishing Division. ISBN 0-07-140235-7.
2. Behringer W (April 2005). "Therapeutic hypothermia after cardiac arrest". *Current Opinion in Anesthesiology* 18 (2): 163–8.
3. Rippe, James M.; Irwin, Richard S. (2003). *Irwin and Rippe's intensive care medicine*. Hagerstown, MD: Lippincott Williams & Wilkins. ISBN 0-7817-3548-3.
4. Resuscitation Council (UK) Guidelines 2005.
5. Jasmeet Soar, Gavin D. Perkins, Jerry Nolan., ed. (2012). *ABC of resuscitation* (6th ed. ed.). Chichester, West Sussex: Wiley-Blackwell. p. 43.
6. Michael E Zevitz, MD. Ventricular Fibrillation. Medscape. Retrieved 2011-08-17.
7. Wellens HJ, Bar FW, Lie KI. (1978). The value of the electrocardiogram in the differential diagnosis of a tachycardia with a widened QRS complex. *Am J Med* 64 (1): 27–33.
8. Mazur G (2004). *ACLS: Principles And Practice*. Dallas: American Heart Assn. pp. 71–87.
9. American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care (November 2010). Part 8: Adult Advanced Cardiovascular Life Support. *Circulation* 122 (18 Suppl): S729–S767.
10. Demirovic J, Myerburg RJ. Epidemiology of sudden coronary death: an overview. *ProgCardiovasc Dis* 1994; 37:39.
11. Rosamond W, Flegal K, Furie K, et al. Heart disease and stroke statistics--2008 update: a report from the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. *Circulation* 2008; 117:e25.
12. Eisenberg, MS, Mengert, TJ. Cardiac resuscitation. *N Engl J Med* 2001; 344:1304.
13. Siscovick DS, Weiss NS, Hallstrom AP, et al. Physical activity and primary cardiac arrest. *JAMA* 1982; 248:3113.
14. Goldenberg I, Jonas M, Tenenbaum A, et al. Current smoking, smoking cessation, and the risk of sudden cardiac death in patients with coronary artery disease. *Arch Intern Med* 2003; 163:2301.

References

15. Albert CM, Mittleman MA, Chae CU, et al. Triggering of sudden death from cardiac causes by vigorous exertion. *N Engl J Med* 2000; 343:1355.
16. Jouven X, Desnos M, Guerot C, Ducimetière P. Predicting sudden death in the population: the Paris Prospective Study I. *Circulation* 1999; 99:1978.
17. Albert CM, Manson JE, Cook NR, et al. Moderate alcohol consumption and the risk of sudden cardiac death among US male physicians. *Circulation* 1999; 100:944.
18. Weinmann S, Siscovick DS, Raghunathan TE, et al. Caffeine intake in relation to the risk of primary cardiac arrest. *Epidemiology* 1997; 8:505.
19. Hermreck AS. The history of cardiopulmonary resuscitation. *Am J Surg* 1988; 156:430.
20. Highlights of the History of Cardiopulmonary Resuscitation (CPR). American Heart Association 2006. www.americanheart.org (Accessed on March 01, 2007).
21. Field JM, Hazinski MF, Sayre MR, et al. Part 1: executive summary: 2010 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. *Circulation* 2010; 122:S640.
22. Hazinski MF, Nolan JP, Billi JE, et al. Part 1: Executive summary: 2010 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science With Treatment Recommendations. *Circulation* 2010; 122:S250.
23. Valenzuela TD, Kern KB, Clark LL, et al. Interruptions of chest compressions during emergency medical systems resuscitation. *Circulation* 2005; 112:1259.
24. Yu T, Weil MH, Tang W, et al. Adverse outcomes of interrupted precordial compression during automated defibrillation. *Circulation* 2002; 106:368.
25. Abella BS, Sandbo N, Vassilatos P, et al. Chest compression rates during cardiopulmonary resuscitation are suboptimal: a prospective study during in-hospital cardiac arrest. *Circulation* 2005; 111:428.
26. International Liaison Committee on Resuscitation. 2005 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations. Part 2: Adult basic life support. *Resuscitation* 2005; 67:187.
27. Murray WB, Foster PA. Crisis resource management among strangers: principles of organizing a multidisciplinary group for crisis resource management. *J ClinAnesth* 2000; 12:633.

References

28. DeVita MA, Schaefer J, Lutz J, et al. Improving medical emergency team (MET) performance using a novel curriculum and a computerized human patient simulator. *QualSaf Health Care* 2005; 14:326.
29. Neumar RW, Otto CW, Link MS, et al. Part 8: adult advanced cardiovascular life support: 2010 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. *Circulation* 2010; 122:S729.
30. Berg RA, Hemphill R, Abella BS, et al. Part 5: adult basic life support: 2010 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. *Circulation* 2010; 122:S685.
31. Martens PR, Russell JK, Wolcke B, et al. Optimal Response to Cardiac Arrest study: defibrillation waveform effects. *Resuscitation* 2001; 49:233.
32. Schneider T, Martens PR, Paschen H, et al. Multicenter, randomized, controlled trial of 150-J biphasic shocks compared with 200- to 360-J monophasic shocks in the resuscitation of out-of-hospital cardiac arrest victims. Optimized Response to Cardiac Arrest (ORCA) Investigators. *Circulation* 2000; 102:1780.
33. Mohr M, Bahr J, Schmid J, et al. The decision to terminate resuscitative efforts: results of a questionnaire. *Resuscitation* 1997; 34:51.
34. Levine RL, Wayne MA, Miller CC. End-tidal carbon dioxide and outcome of out-of-hospital cardiac arrest. *N Engl J Med* 1997; 337:301.
35. Grmec S, Klemen P. Does the end-tidal carbon dioxide (EtCO₂) concentration have prognostic value during out-of-hospital cardiac arrest? *Eur J Emerg Med* 2001; 8:263.
36. Morrison LJ, Visentin LM, Kiss A, et al. Validation of a rule for termination of resuscitation in out-of-hospital cardiac arrest. *N Engl J Med* 2006; 355:478.
37. Stiell IG, Nesbitt LP, Pickett W, et al. The OPALS Major Trauma Study: impact of advanced life-support on survival and morbidity. *CMAJ* 2008; 178:1141.
38. Morrison LJ, Verbeek PR, Zhan C, et al. Validation of a universal prehospital termination of resuscitation clinical prediction rule for advanced and basic life support providers. *Resuscitation* 2009; 80:324.
39. Salen P, Melniker L, Chooljian C, et al. Does the presence or absence of sonographically identified cardiac activity predict resuscitation outcomes of cardiac arrest patients? *Am J Emerg Med* 2005; 23:459.

References

40. Breikreutz R, Price S, Steiger HV, et al. Focused echocardiographic evaluation in life support and peri-resuscitation of emergency patients: a prospective trial. *Resuscitation* 2010; 81:1527.
41. Rea TD, Eisenberg MS, Becker LJ, et al. Temporal trends in sudden cardiac arrest: a 25-year emergency medical services perspective. *Circulation* 2003; 107:2780.
42. Rea TD, Crouthamel M, Eisenberg MS, et al. Temporal patterns in long-term survival after resuscitation from out-of-hospital cardiac arrest. *Circulation* 2003; 108:1196.
43. Herlitz J, Andersson E, Bång A, et al. Experiences from treatment of out-of-hospital cardiac arrest during 17 years in Göteborg. *Eur Heart J* 2000; 21:1251.
44. Hamel MB, Phillips R, Teno J, Davis RB, Goldman L, Lynn J, Desbiens N, Connors AF Jr, Tsevat J. Cost effectiveness of aggressive care for patients with nontraumatic coma. *Crit Care Med*. 2002;30:1191–1196.
45. Geocadin RG, Buitrago MM, Torbey MT, Chandra-Strobos N, Williams MA, Kaplan PW. Neurologic prognosis and withdrawal of life support after resuscitation from cardiac arrest. *Neurology*. 2006;67:105–108.
46. Wijdicks EF, Hijdra A, Young GB, Bassetti CL, Wiebe S; Quality Standards Subcommittee of the American Academy of Neurology. Practice parameter: prediction of outcome in comatose survivors after cardiopulmonary resuscitation (an evidence-based review): report of the Quality Standards Subcommittee of the American Academy of Neurology. *Neurology*. 2006;67:203–210.
47. Sandroni C, Nolan J, Cavallaro F, Antonelli M. In-hospital cardiac arrest: incidence, prognosis and possible measures to improve survival. *Intensive Care Med*. 2007;33:237–245.
48. Rogove HJ, Safar P, Sutton-Tyrrell K, Abramson NS; Brain Resuscitation Clinical Trial I and II Study Groups. Old age does not negate good cerebral outcome after cardiopulmonary resuscitation: analyses from the brain resuscitation clinical trials. *Crit Care Med*. 1995;23:18 –25.
49. Skrifvars MB, Castrén M, Aune S, Thoren AB, Nurmi J, Herlitz J. Variability in survival after in-hospital cardiac arrest depending on the hospital level of care. *Resuscitation*. 2007;73:73– 81.
50. Ballew KA, Philbrick JT, Caven DE, Schorling JB. Predictors of survival following in-hospital cardiopulmonary resuscitation: a moving target. *Arch Intern Med*. 1994;154:2426 –2432.

References

51. Ebell MH. Prearrest predictors of survival following in-hospital cardiopulmonary resuscitation: a meta-analysis. *J FamPract.* 1992;34: 551–558.
52. de Vos R, Koster RW, De Haan RJ, Oosting H, van der Wouw PA, Lampe-Schoenmaeckers AJ. In-hospital cardiopulmonary resuscitation: prearrest morbidity and outcome. *Arch Intern Med.* 1999;159:845– 850.
53. Rogove HJ, Safar P, Sutton-Tyrrell K, Abramson NS; Brain Resuscitation Clinical Trial I and II Study Groups. Old age does not negate good cerebral outcome after cardiopulmonary resuscitation: analyses from the brain resuscitation clinical trials. *Crit Care Med.* 1995;23:18 –25.
54. Wijdicks EF, Hijdra A, Young GB, Bassetti CL, Wiebe S; Quality Standards Subcommittee of the American Academy of Neurology. Practice parameter: prediction of outcome in comatose survivors after cardiopulmonary resuscitation (an evidence-based review): report of the Quality Standards Subcommittee of the American Academy of Neurology. *Neurology.* 2006;67:203–210.
55. Abella BS, Alvarado JP, Myklebust H, Edelson DP, Barry A, O’Hearn N, VandenHoek TL, Becker LB. Quality of cardiopulmonary resuscitation during in-hospital cardiac arrest. *JAMA.* 2005;293:305–310.
56. Ahrens T, Schallom L, Bettorf K, Ellner S, Hurt G, O’Mara V, Ludwig J, George W, Marino T, Shannon W. End-tidal carbon dioxide measurements as a prognostic indicator of outcome in cardiac arrest. *Am J Crit Care.* 2001;10:391–398.
57. Booth CM, Boone RH, Tomlinson G, Detsky AS. Is this patient dead, vegetative, or severely neurologically impaired? Assessing outcome for comatose survivors of cardiac arrest. *JAMA.* 2004;291:870–879.
58. Jorgensen EO. Course of neurological recovery and cerebral prognostic signs during cardio-pulmonary resuscitation. *Resuscitation.* 1997; 35:9 –16.
59. Zandbergen EG, de Haan RJ, Stoutenbeek CP, Koelman JH, Hijdra A. Systematic review of early prediction of poor outcome in anoxic ischaemic coma. *Lancet.* 1998;352:1808 –1812.
60. Zandbergen EG, Hijdra A, Koelman JH, Hart AA, Vos PE, Verbeek MM, de Haan RJ; PROPAC Study Group. Prediction of poor outcome within the first 3 days of postanoxic coma [published correction appears in *Neurology.* 2006;66:1133]. *Neurology.* 2006;66:62– 68.
61. Auer R, Sutherland G. Hypoxia and related conditions. In: Graham DI, Lantos PL, eds. *Greenfield’s Neuropathology.* London, England: Arnold; 2002.

References

62. Wijdicks EF, Parisi JE, Sharbrough FW. Prognostic value of myoclonus status in comatose survivors of cardiac arrest. *Ann Neurol*. 1994;35: 239–243.
63. Teasdale G, Jennett B. Assessment of coma and impaired consciousness: a practical scale. *Lancet*. 1974;2:81–84.
64. Sacco RL, VanGool R, Mohr JP, Hauser WA. Nontraumatic coma: Glasgow coma score and coma etiology as predictors of 2-week outcome. *Arch Neurol*. 1990;47:1181–1184.
65. Young GB. The EEG in coma. *J Clin Neurophysiol*. 2000;17:473–485.
66. Zandbergen EG, de Haan RJ, Hijdra A. Systematic review of prediction of poor outcome in anoxic-ischaemic coma with biochemical markers of brain damage. *Intensive Care Med*. 2001;27:1661–1667.
67. Zandbergen EG, Koelman JH, de Haan RJ, Hijdra A; PROPAC Study Group. SSEPs and prognosis in postanoxic coma: only short or also long latency responses? *Neurology*. 2006;67:583–586.
68. Fischer C, Luauté J, Némóz C, Morlet D, Kirkorian G, Mauguière F. Improved prediction of awakening or nonawakening from severe anoxic coma using tree-based classification analysis. *Crit Care Med*. 2006;34: 1520–1524.
69. Synek VM. Value of a revised EEG coma scale for prognosis after cerebral anoxia and diffuse head injury. *Clin Electroencephalogr*. 1990; 21:25–30.
70. Koenig MA, Kaplan PW, Thakor NV. Clinical neurophysiologic monitoring and brain injury from cardiac arrest. *Neurol Clin*. 2006;24: 89-106.
71. Rundgren M, Rosén I, Friberg H. Amplitude-integrated EEG (aEE) predicts outcome after cardiac arrest and induced hypothermia. *Intensive Care Med*. 2006;32:836–842.
72. Torbey MT, Geocadin R, Bhardwaj A. Brain arrest neurological outcome scale (BrANOS): predicting mortality and severe disability following cardiac arrest. *Resuscitation*. 2004;63:55–63.
73. Wijdicks EF, Campeau NG, Miller GM. MR imaging in comatose survivors of cardiac resuscitation. *AJNR Am J Neuroradiol*. 2001;22: 1561–1565.
74. Martin GB, Paradis NA, Helpert JA, Nowak RM, Welch KM. Nuclear magnetic resonance spectroscopy study of human brain after cardiac resuscitation. *Stroke*. 1991;22:462–468.

References

75. Kano H, Houkin K, Harada K, Koyanagi I, Nara S, Itou Y, Imaizumi H, Asai Y, Saitou M. Neuronal cell injury in patients after cardiopulmonary resuscitation: evaluation by diffusion-weighted imaging and magnetic resonance spectroscopy. *Neurosurg Rev.* 2006;29:88–92.
76. Tirschwell DL, Longstreth WT Jr, Rauch-Matthews ME, Chandler WL, Rothstein T, Wray L, Eng LJ, Fine J, Copass MK. Cerebrospinal fluid creatine kinase BB isoenzyme activity and neurologic prognosis after cardiac arrest. *Neurology.* 1997;48:352–357.
77. Grubb NR, Simpson C, Sherwood R, Abraha H, Cobbe SM, O’Carroll RE, Deary I, Fox KA. Prediction of cognitive dysfunction after resuscitation from out-of-hospital cardiac arrest using serum neuron-specific enolase and protein S-100. *Heart.* 2007;93:1268–1273.
78. Zandbergen EG, Hijdra A, Koelman JH, Hart AA, Vos PE, Verbeek MM, de Haan RJ; PROPAC Study Group. Prediction of poor outcome within the first 3 days of postanoxic coma [published correction appears in *Neurology.* 2006;66:1133]. *Neurology.* 2006;66:62–68.
79. Prohl J, Röther J, Kluge S, de Heer G, Liepert J, Bodenbug S, Pawlik K, Kreyman G. Prediction of short-term and long-term outcomes after cardiac arrest: a prospective multivariate approach combining biochemical, clinical, electrophysiological, and neuropsychological investigations. *Crit Care Med.* 2007;35:1230–1237.
80. Piazza O, Cotena S, Esposito G, De Robertis E, Tufano R. S100B is a sensitive but not specific prognostic index in comatose patients after cardiac arrest. *Minerva Chir.* 2005;60:477–480.
81. Young GB, McLachlan RS, Kreeft JH, Demelo JD. An electroencephalographic classification for coma. *Can J Neurol Sci.* 1997;24:320–5.
82. McCabe C. *What is cost–utility analysis?* London: Hayward Medical Communications. 2009.
83. Callans DJ. Out-of-hospital cardiac arrest—the solution is shocking. *N Engl J Med.* 2004; 351: 632-4.
84. Peberdy MA, Kaye W, Ornato JP, Larkin GL, Nadkarni V, Mancini ME, et al. Cardiopulmonary resuscitation of adults in the hospital: a report of 14,720 cardiac arrests from the National Registry of Cardiopulmonary Resuscitation. *Resuscitation.* 2003; 58: 297-308.

References

85. Bassetti C, Bomio F, Mathis J, Hess CW. Early prognosis in coma after cardiac arrest: a prospective clinical, electrophysiological and biochemical study of 60 patients. *J NeurolNeurosurg Psychiatry*. 1996;61:610–5.
86. Gray WA, Capone RJ, Most AS. Unsuccessful emergency medical resuscitation—are continued efforts in the emergency department justified? *N Engl J Med*. 1991;325:1393–1398.
87. Edgren E, Hedstrand U, Kelsey S, Sutton-Tyrrell K, Safar P. Assessment of neurological prognosis in comatosed survivors of cardiac arrest. BRCT I Study Group. *Lancet*. 1994; 343:1055-9.
88. Thomke F, Marx JJ, Sauer O, Hundsberger T, Hâgele S, Wiechelt J, et al. Observations on comatosed survivors of cardiopulmonary resuscitation with generalized myoclonus. *BMC Neurology*. 2005; 5:14.
89. Zandbergen EG, Hijdra A, Koelman JH, Hart AA, Vos PE, Verbeek MM, et al, PROPAC Study Group: Prediction of poor outcome within the first 3 days of postanoxic coma. *Neurology*. 2006; 66: 62-8.
90. Young GB, Doig G, Ragazzoni A. Anoxic ischemic encephalopathy: Clinical and electrophysiological associations with outcome. *Neurocrit. Care* 2005;2:159–164.
91. Krumholz A, Stern BJ, Weiss HD. Outcome from coma after cardiopulmonary resuscitation: relation to seizures and myoclonus. *Neurology*. 1988; 38: 401-5.
92. Rogove HJ, Safar P, Sutton-Tyrrell K, Abramson NS. Old age does not negate good cerebral outcome after cardiopulmonary resuscitation: analyses from the brain resuscitation clinical trials. The Brain Resuscitation. Clinical Trial I and II Study Groups. *Crit Care Med*. 1995; 23: 18-25.
93. Rossetti A, Carrera E, Oddo M. Early EEG correlates of neuronal injury after brain anoxia. *Neurology* .2012; 78: 796-802.
94. Young GB, Doig G, Ragazzoni A. Anoxic ischemic encephalopathy: Clinical and electrophysiological associations with outcome. *Neurocrit. Care* 2005;2:159–164.
95. Chan PS, Berg RA, Peberdy MA, Ornato JP, Noel T, Nadkarni V, et al. Duration of resuscitation efforts and survival after in-hospital cardiac arrest: an observational study. *Lancet*. 2012 Oct 27; 380(9852): 1473-81.

References

96. Wijdicks EF, Hijdra A, Young GB, Bassetti CL, Wiebe S; Quality Standards Subcommittee of the American Academy of Neurology. Practice parameter: prediction of outcome in comatose survivors after cardiopulmonary resuscitation (an evidence-based review): report of the Quality Standards Subcommittee of the American Academy of Neurology. *Neurology*. 2006; 67: 203-10.
97. Sacco RL, VanGool R, Mohr JP, Hauser WA. Nontraumatic coma: Glasgow coma score and coma etiology as predictors of 2-week outcome. *Arch Neurol*. 1990;47:1181–1184.
98. Torbey MT, Selim M, Knorr J, Bigelow C, Recht L: Quantitative analysis of the loss of distinction between gray and white matter in comatose patients after cardiac arrest. *Stroke* 2000, 31:2163–2167.
99. Wijdicks EF, Parisi JE, Sharbrough FW. Prognostic value of myoclonus status in comatose survivors of cardiac arrest. *Ann Neurol*. 1994; 35(2):239-43.
100. Young G. Neurologic prognosis after cardiac arrest. *New Eng J Med*. 2009; 361(6): 605-11.
101. Young GB, Doig G, Ragazzoni A. Anoxic ischemic encephalopathy: Clinical and electrophysiological associations with outcome. *Neurocrit. Care* 2005;2:159–164.
102. Rossetti A, Carrera E, Oddo M. Early EEG correlates of neuronal injury after brain anoxia. *Neurology* .2012; 78: 796-802.
103. Bonifacio SL, Glass HC, Peloquin S et al. A new neurological focus in neonatal intensive care. *Nat rev neurol* 2011; 7: 485-494.
104. Rossetti AO, Oddo M, Liaudet L, Kaplan PW. Predictors of awakening from postanoxic status epilepticus after therapeutic hypothermia. *Neurology*. 2009; 72: 744-9.
105. Towne AR, Waterhouse EJ, Boggs JG, Garnett LK, Brown AJ, Smith JR Jr, DeLorenzo RJ. Prevalence of nonconvulsive status epilepticus in comatose patients. *Neurology* 2000;54:340–5.
106. Thomke F, Marx JJ, Sauer O, Hundsberger T, et al. Observations on comatose survivors of cardiopulmonary resuscitation with generalized myoclonus. *BMC Neurology*. 2005; 5:14.
107. Grubb NR, Simpson C, Sherwood R, Abrahams H, Cobbe SM, O'Carroll RE, Deary I, Fox KA. Prediction of cognitive dysfunction after resuscitation from out-of-hospital cardiac arrest using serum neuron-specific enolase and protein S-100. *Heart*. 2007;93:1268 –1273.

References

108. Tiainen M, Roine RO, Pettilä V, Takkunen O. Serum neuron-specific enolase and S-100B protein in cardiac arrest patients treated with hypothermia. *Stroke*. 2003;34:2881–2886.
109. Roine RO, Somer H, Kaste M, Viinikka L, Karonen SL. Neurological outcome after out-of-hospital cardiac arrest: prediction by cerebrospinal fluid enzyme analysis. *Arch Neurol*. 1989;46:753–756.
110. Prohl J, Röther J, Kluge S, de Heer G, Liepert J, Bodenbun S, Pawlik K, Kreymann G. Prediction of short-term and long-term outcomes after cardiac arrest: a prospective multivariate approach combining biochemical, clinical, electrophysiological, and neuropsychological investigations. *Crit Care Med*. 2007;35:1230–1237.
111. Rossetti A, Carrera E, Oddo M. Early EEG correlates of neuronal injury after brain anoxia. *Neurology*. 2012; 78: 796-802.
112. Naeimi ZS, Weinhofer A, Sarahrudi K, Heinz T, Vecsei V. Predictive value of S-100B protein and neuron specific enolase as markers of traumatic brain damage in clinical use. *Brain Inj* 2006;20:463–468.
113. Jauch EC, Lindsay C, Broderick J, Fagan SC, Tilley BC, Levine SR. Association of serial biochemical markers with acute ischemic stroke: the National Institute of Neurological Disorders and Stroke recombinant tissue plasminogen activator Stroke Study. *Stroke* 2006;37:2508–2513.

الملخص العربي

يعتبر الاعتلال الدماغي نقص الأوكسجين الناتج عن السكتة القلبية ثالثاً لأسباب المؤدية للغيبوبة والتنحط الجالس اياً مركزاً للناجين. وقد ارتبطت بعض تغيرات رسم المخ بالخبيثة بنتائج سلبية

ويعتبر إنزيم إينوليز الخاص بالخلايا العصبية الذي يفرز بعد السكتة القلبية مؤشراً لمبدأ إصابة العصبية بعد نقص الأوكسجين.

وتهدف هذه الدراسة الى فحص تغيرات رسم المخ في مرضى ما بعد السكتة القلبية ودراسة علاقتها بمستوى إنزيم إينوليز الخاص بالخلايا العصبية ودراسة قيمتهم في التنبؤ بالنتائج.

ولقد أجريت هذه الدراسة على أربعة وثلاثين مريضاً مصرياً بعد الانعاش من السكتات القلبية الرئوية وقد خضعوا لتقييم مؤشرات الغيبوبة، استجابات جذع المخ، أشعة مقطعية على المخ، رسم المخ بالكمبيوتر، قياس مستوى إنزيم إينوليز الخاص بالخلايا العصبية و مؤشر النتيجة.

وقد أظهرت النتائج وجود علاقة عكسية ذات مدلول قوى بين مؤشر الغيبوبة لرسم المخ في اليومين الأول والسابع مع مؤشر النتيجة للجلاسكو، ويوجد علاقة عكسية ذات مدلول قوى بين مستوى إنزيم إينوليز في اليومين الأول والثالث مع مؤشر النتيجة للجلاسكو، كما يوجد علاقة طردية ذات مدلول قوى بين مؤشر الغيبوبة لرسم المخ في اليومين الأول والسابع مع مستوى إنزيم إينوليز في اليومين الأول والثالث.

ومن هذه الدراسة نستدل على أنه يوجد في مرضى ما بعد السكتة القلبية الرئوية بعض تغيرات رسم المخ الخبيثة والتي ترتبط بمستويات عالية من إنزيم إينوليز الخاص بالخلايا العصبية وهم مؤشرات جيدة للعواقب السيئة في هؤلاء المرضى.

جامعة الإسكندرية
كلية الطب
قسم الطب الحرج

العلاقة بين تغيرات رسم المخ ومستوى إنزيم الإينوليز فى النتائج المتوقعة لمرضى ما بعد
السكتة القلبية

رسالة مقدمة

لقسم الطب الحرج - كلية الطب - جامعة الإسكندرية
ضمن متطلبات درجة

الماجستير

فى

الطب الحرج

من

أحمد محمد طه العربى
بكالوريوس الطب والجراحة ، ٢٠٠٩
كلية الطب، جامعة الإسكندرية

[٢٠١٥]



جامعة الإسكندرية

كلية الطب

قسم الطب الحرج

العلاقة بين تغيرات رسم المخ ومستوى إنزيم الإينوليز في النتائج المتوقعة لمرضى ما بعد

السكتة القلبية

رسالة مقدمة من

أحمد محمد طه العربى

للحصول على درجة

الماجستير

فى

الطب الحرج

التوقيع

.....

.....

.....

لجنة المناقشة والحكم على الرسالة

أ.د/ صلاح عبد الفتاح محمد

أستاذ التخدير والعناية المركزة الجراحية

كلية الطب

جامعة قناة السويس

أ.م.د/ تامر عبد الله حلمى

أستاذ مساعد الطب الحرج

كلية الطب

جامعة الإسكندرية

أ.م.د/ محمد عبد السلام مصطفى مجاهد

أستاذ مساعد الطب الحرج

كلية الطب

جامعة الإسكندرية

لجنة الإشراف

موافقون

.....

أ.م.د/ تامر عبدالله حلمي

أستاذ مساعد الطب الحرج

قسم الطب الحرج

كلية الطب

جامعة الإسكندرية

.....

أ.م.د/ دعاء إبراهيم حشاد

أستاذ مساعد الباثولوجيا الإكلينيكية

قسم الباثولوجيا الإكلينيكية

كلية الطب

جامعة الإسكندرية

.....

المشرف المشارك

د/ شريف أحمد عبد المنعم

مدرس الطب الحرج

قسم الطب الحرج

كلية الطب

جامعة الإسكندرية