Leader role is associated with higher salivary cortisol level â€“ a simulation based study in anaesthesia residents

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IntroduÃ§Ã£o: Anaesthesiologists commonly lead teams in both critical and non-critical events. Many anaesthesiologists (residents and specialist) perceive this as a stressing situation for which training is required. Simulation-based training has been used to practice both technical and non-technical abilities in these events. It is however unclear whether simulated encounters in these type of events reproduce the stressful conditions of the real-life events since it is a safe and controlled environment.(1)
Objetivos: We designed a study to evaluate the levels of stress of anaesthesiology residents during simulated encounters of both critical and non-critical clinical scenarios related to anaesthesiology. Salivary cortisol was used as a biochemical marker to evaluate and compare levels of stress during simulation cases (cortisol ELISA by IBL).
Metodologia: Subjects were invited to participate in a course on a voluntary basis. This course was designed to expose participants to life-threatening clinical conditions of patients and to clinical interview of standardized patients.We ran a one day course, with 8 anesthesia crisis scenarios and 4 anesthesia clinical interviews. Before the course we collected saliva from participants in a non-working day to establish a baseline.On the day of the course we collected saliva in the beginning and at end of the course and after each simulator scenario and clinical case.
Resultados: There was no difference between average cortisol levels in a non-working day and the day of the course. There was however a non-significant increase in the baseline/simulation ratio of afternoon cortisol.Participantâ€™s cortisol levels were similar after scenarios with mannequin and with standardized patients. We found a significant difference on cortisol levels between the team leader participant and the helper in the high fidelity simulation (p0.02).
ConclusÃµes: Simulation based training induces a stress response which is significantly higher in team leaders. We need to go further and find out if those levels of stress are similar in clinical work and if there is correlation with performance.
Palavras-chaves: salivary; cortisol; high-fidelity; simulation
ReferÃªncias bibliogrÃ¡ficas (max. 4 - Norma APA): 1- Jones T. Goss S, Weeks B, Miura H, Bassandeh D, Cheek DJ (2011) The effects of high-fidelity simulation on salivary levels in SRNA students: a pilot study. ScientificWorldJournal. Jan 5;11:86-92

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