

Introduction: Recovery processes in intensive care units (ICUs) interact with patients' cultural values, belief systems, and lifestyles. The increase in global migration and multicultural societies has heightened the importance of culturally sensitive care practices in ICUs. This narrative review aims to examine the effects of cultural practices on physiological parameters in critically ill patients. **Methodology:** In this narrative review, studies indexed in the Web of Science and Scopus databases between January 2016 and February 2026 were systematically examined. The search strategy incorporated keywords related to cultural care („cultural care,” „spiritual care,” „family-centered care”), intensive care settings („intensive care unit,” „ICU,” „critical care”), and physiological outcomes („vital signs,” „hemodynamic parameters,” „cortisol”). **Results:** The findings were structured into three main categories corresponding to patients' cultural frameworks, including family-based, spiritual/religious, and mind–body interventions. Flexible visiting policies have been shown to reduce blood pressure and heart rate while stabilizing respiratory rates and improving oxygen saturation. Additionally, the involvement of family members in supportive care practices, such as touch and massage, improves vital signs, shortens weaning duration, reduces reintubation rates, and decreases adverse events associated with physiological fluctuations. Spiritual interventions, including listening to the Holy Qur'an, prayer, and structured spiritual care practices, have been reported to suppress sympathetic activity, thereby reducing respiratory rate, blood pressure, and pulse, lowering mean arterial pressure, increasing oxygen saturation, and producing a significant reduction in cortisol levels. Guided meditation, a mind–body intervention originating from Eastern traditions, has also been reported to support hemodynamic stability by increasing parasympathetic activity. **Conclusion:** Current evidence suggests that culturally sensitive interventions may be associated with measurable physiological parameters in critically ill patients. However, well-designed studies are needed to clarify the underlying causal mechanisms and to support their integration into clinical practice. **Key words:** Cultural care, Family-centered care; Intensive care unit; Mind–body interventions; Physiological outcomes, Spiritual care.

Liraglutide modulates the hypothalamic lipid profile, improves mitochondrial respiration, and attenuates hypothalamic neuroinflammation in obese mice

Gabriel Cardoso Santos¹, Hellen Veida¹, Patrik Saul Zarpellon Barbosa¹, Juliana Gebenlian¹, Thiago V. D. Felipe³, Giulia Covolo Spegiorim², Carlos Arterio Sorgi³, Luciane Carla Alberici², José Antunes-Rodrigues¹, Lucila Leico Kagohara Elias¹

¹Ribeirão Preto Medical School, University of São Paulo, Brazil

²Graduate Program in Biochemistry, Ribeirão Preto Medical School, University of São Paulo, Brazil

³Department of Chemistry (DQ), Faculty of Philosophy, Sciences and Letters of Ribeirão Preto, University of São Paulo, Brazil

Introduction: Obesity-associated neuroinflammation is characterized by increased levels of saturated fatty acids (SFAs) and other lipids, along with the recruitment and activation of astrocytes and microglia, which actively contribute to the initiation and spread of the inflammatory response. Among the therapeutic strategies for obesity, glucagon-like peptide-1 (GLP-1) analogs have gained attention due to their anti-inflammatory, antidiabetic, and anti-obesity properties. This study aimed to investigate the effects of peripheral liraglutide treatment on lipid metabolism, mitochondrial function, and hypothalamic neuroinflammation induced by a high-fat diet (HFD). **Methods:** Male C57BL/6 mice were fed with either standard chow or HFD for 14 weeks. At the end of this period, the animals received daily injection of liraglutide (200 µg/kg, sc) for ten consecutive days. Body composition was assessed using the MiniSPEC NMR system before and after the treatment period. For histological analyses, immunofluorescence to detect hypothalamic and brainstem astrocyte activation through glial fibrillary acidic protein (GFAP) expression. The hypothalamic lipid profile was determined by high-performance liquid chromatography coupled with tandem mass spectrometry (LC–MS/MS), and mitochondrial function was assessed by high-resolution respirometry using the Oroboros O2k Oxygraph. **Results:** Liraglutide treatment significantly reduced food intake, body weight, fasting glucose levels, plasma triglycerides, total cholesterol, and leptin levels in HFD-fed mice ($p < 0.05$). In addition, liraglutide decreased both fat and lean mass ($p < 0.05$) and reduced GFAP expression in the hypothalamus and nucleus tractus solitarius (NTS). Furthermore, peripheral liraglutide administration altered the hypothalamic lipid profile and improved mitochondrial respiratory capacity (OXPHOS) in obese mice ($p < 0.05$; $R^2 = 0.42$). **Conclusion:** In conclusion, peripheral liraglutide treatment improves metabolic parameters, modulates hypothalamic lipid composition, enhances mitochondrial function, and attenuates hypothalamic neuroinflammation in diet-induced obese mice.

Acute-onset, difficult to manage post-hypoxic myoclonus: how far can we go with antiepileptics? A case report

Anna Gkiouliava¹, Alexandra Tsankof¹, Evangelos Papatolis¹, Pinelopi Amoiridou¹, Stella-Niki Primikiri¹, Helena Argiriadou¹

¹Department of Anaesthesia and Intensive Care, School of Medicine, Faculty of Health Sciences, Aristotle University of Thessaloniki, Greece

Introduction: Post-Hypoxic Myoclonus (PHM) can present early after cardiac arrest and indicates poor neurologic outcome. Its management may be challenging and EEG may aid to guide clinical management. We present the management of a patient suffering from acute, persistent PHM in absence of bedside EEG. **Methodology:** This is the case of a 46 year old man who survived after cardiac arrest due to a STEMI. After primary PCI the patient was initially admitted in the Coronary Care Unit, intubated under sedation with propofol infusion. Shortly after cessation of the sedative medication he developed bilateral asymmetrical (right prominent side) myoclonus of the limbs which was treated with levetiracetam. A brain CT