66. MECHANICAL VENTILATION ASSOCIATED PNEUMONIA: THE IMPACT OF HOSPITAL MOBIDITY AND MORTALITY IN THE PACIENTS WITH SEVERE CRANIAL AND CENTRAL NERVOUS SYSTEM INJURY

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Introduction: Ventilator associated pneumonia is one of the most frequent complication in mechanically ventilated critical patients from developing countries. The impact on morbidity, mortality and general treatment costs is undeniable.

Purpose and objectives: (1) To highlight the rate, risk factors, causative bacteria and their resistance to antibiotics, and (2) To estimate additional morbidity, mortality and treatment costs in patients with severe traumatic brain injury (STBI) with ventilator associate pneumonia (VAP).

Materials and methods: Were included all mechanically ventilated for more than 48 hours patients with STBI (n=253), admitted in Intensive Care Unit of National Scientific and Practical Center of Emergency Medicine during 2012 year. Registered parameters were: patient's comorbidities, potential risk factors for VAP, bacterial spectrum and resistance, and hospitalization costs.

Results: Almost a half of STBI patients who were ventilated for more than 48 hours developed VAP. Thirty-seven percents of them had left ventricular hypertrophy, 22% - arterial hypertension, 22% – ischemic heart disease, 19% - hepatitis.

Confirmed risk factors, that significantly increased VAP prevalence, were: hemodynamic instability, hypovolemia, severe bleeding, femur or tibia fracture, broken ribs, pleurisy, and pneumothorax. The bacterial agents causing VAP in study group where: *Acinetobacter* (25%), *Pseudomonas aeruginosa* (19%), *Streptococcus epidermidis* (17%), *Proteus mirabilis* (15%), *Klebsiella pneumoniae* (15%), *Enterococcus faecalis* (9%); all of them where antibiotic resistant. Length of stay in intensive care unit was: for STBI with VAP – 18 days vs. 12 days, in case of STBI without VAP. Hospitalization costs in VAP (+) group was three times higher. Registered extra-morbidity in STBI patients with VAP was 22%.

Conclusion: (1) VAP is caused by multi resistant to antibiotics nosocomial flora. (2) In STBI patients, VAP was associated with an important extra morbidity, extra mortality and costs of care. (3) Most of mentioned risk factors are manageable, so, VAP is a highly preventable nosology.

Keywords: severe traumatic brain injury, ventilator associated pneumonia, mortality

67. ADVANCES IN MULTIMODALITY TREATMENT OF CEREBRAL ANEURYSMS

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Background: The treatment of intracranial aneurysms has undergone a paradigm shift such that endovascular therapy has emerged as a viable treatment regimen. Thus, microsurgery techniques have become less invasive, more appealing to patients, lower risk, and efficacious for complex aneurysms, particularly those unfavorable for or failing endovascular therapy.

Methods: We reviewed literature and emphasized major modern techniques used in complex aneurysm treatment. Also we present several cases of minimal invasive supraorbital „keyhole'' craniotomy, used in treatment of anterior circulation aneurysms and a case report of a giant cavernous carotid aneurysm resolved with an extra-intracranial high-flow bypass and trapping of parent vessel.

Results: Multimodality treatment of cerebral aneurysm provided by literature can be divided in two major groups: microsurgery and endovascular techniques. Microsurgery include: direct clip occlusion via a large or minimal invasive craniotomy, clip occlusion after coil extraction and bypass techniques; while endovascular techniques embrace: coiling, stent/balloon-assisted coiling and pipeline endovascular device flow diverter.

Conclusion: Contemporary management strategies should involve all aspects of neurovascular care, including neuroendovascular physicians, neurocritical care, and neuroanesthesia. All of these specialties