

Stroke, mTBI, infection, antibiotics and beta blockade: Connecting the dots

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Several themes supported by a robust literature are addressed in this clinical translational review and research paper: The inadequate standard of care for minimal Traumatic Brain Injury (mTBI)/concussion when compared to stroke because diagnosis and care for mTBI/concussion are based primarily on a symptom only framework; the treatment of stroke (brain injury) with select antibiotics; the use of beta blockade in stroke (brain injury). The various etiologies of brain injury appear to coalesce to common endpoints: Potential neuronal demise, cognitive and functional losses, immune suppression and infection. The use of principles patterned after ‘Koch’s Postulates’ (show/prove the presence of infection/illness/disease, treat until resolved appears to be marginalized in establishing a diagnosis and recovery from mTBI/TBI. The pathways of immune system interactions in stroke (brain injury) and infection are briefly discussed. The suggestion of combined specific antibiotic and beta blockade for ischemic stroke (brain injury) and mTBI is advanced for treatment and expeditious further study. Stroke is considered a brain injury in this paper. Stroke is also considered and recommended as a study model for mTBI therapy because of their common end points from brain damage. It is suggested that potential transfer or translation of therapy for stroke may be useful in mTBI.

Biography

Gerald Dieter Griffin has an extensive background in clinical and basic research as well as in clinical medicine. In addition to his medical practice he currently conducts clinical research on traumatic brain injury and offers his services as a consultant to various biotechnology companies. His specific research interests include TBI, the immune response and infection in TBI/stroke, the molecular/immune events of PTSD and treatments. He is retired from the Army giving more than 40 years of distinguished service as an Active Duty and Army Reserve Soldier. As such, he has extensive knowledge of research being conducted in a military setting.

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