

Concussion and pharmacological treatment (literature search) – Dr Ryan Kohler –
December 2011

Medical Therapies for Concussion

Meehan III, William P., Clinics in Sports Medicine Jan2011, Vol. 30 Issue 1, p115

Abstract: The article discusses the clinical management of functional traumatic brain injury (TBI). Persons who experienced sports-related concussion are advised to have physical and cognitive rest. Studies have shown that patient education is significant following TBI since concussion is difficult to recognize. The symptoms of concussion include sleep disturbance, depression, and difficulties concentrating. The pharmacological treatment for TBI and concussion are also cited.

Concussion management and treatment considerations in the adolescent population

By Sabini RC, Reddy CC, The Physician And Sportsmedicine Apr; Vol. 38 (1), pp. 139-46

Over the past decade, significant advances have been made in understanding concussions. Information regarding proper identification, pathophysiology, risks, outcomes, and management protocols has shifted the treatment paradigm from a generalized grading system to an individualized approach. Early identification and timely management of a concussion is necessary to ensure that patients minimize persistent post-concussive symptoms affecting the physical, behavioral, emotional, and cognitive domains. Adolescents are particularly vulnerable to concussions, having greater susceptibility and more prolonged recovery after sustaining an injury. This article aims to inform clinicians on how to improve symptom relief and functional outcomes for adolescent patients with concussion via immediate intervention, neuropsychological management, and pharmacological treatment.

Should we treat concussion pharmacologically?

McCrory, P., British Journal of Sports Medicine Feb 2002, Vol. 36 Issue 1, p3

Abstract: The medical management of concussion in sport has traditionally involved close observation and masterly inactivity. With the use of clinical assessment and neuropsychological testing it possible to individualize patient management and determine safe and appropriate return to play strategies. At the present time, the sports physician has no evidence based pharmacological treatment to offer the concussed athlete. The ability to treat concussion with specific drug therapy requires an understanding of the pathophysiological changes that accompany concussive injuries.

New treatments for concussion: the next millennium beckons

By McCrory P, Clinical Journal Of Sport Medicine: Official Journal Of The Canadian Academy Of Sport Medicine 2001 Jul; Vol. 11 (3), pp. 190-3

As increased understanding of the pathophysiology of mild traumatic brain injury and concussion develops, so the scientific rationale for interventional pharmacological therapy becomes paramount. A number of agents have been postulated or have been the subject of anecdotal noncontrolled trials. This paper reviews the published evidence in this regard. To date no effective pharmacological therapy exists that satisfies Class I evidence-based medicine criteria.

Pharmacologic therapy in traumatic brain injury: update on experimental treatment strategies

By Laurer HL, McIntosh TK, Current Pharmaceutical Design 2001 Oct; Vol. 7 (15), pp. 1505-16;

Considerable effort has led to an increased interest in emerging preclinical and clinical data regarding the pathophysiological changes in the posttraumatic brain. It is widely believed that delayed cell damage and death contributes to behavioral impairment following traumatic brain injury. However, no drug therapy to attenuate this process is available at present, and the development of new therapeutic regimen is urgently warranted. This manuscript represents a compendium of recent preclinical work undertaken to evaluate new pharmacologic strategies in the experimental setting as a first step towards the development of a therapeutic armamentarium directed to improve functional recovery in head-injured patients.