Objective Tools to Assess 6 Types of Concussion

2018 AzATA Summer Symposium
Flagstaff, AZ
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Today’s Objectives

• Describe 6 types of concussion and methods to assess them
• Demonstrate and practice the use of VOMS
• Demonstrate and practice the use of DHI
• Demonstrate and practice the King-Devick
• Demonstrate and practice assessment of Visual Convergence
• Be available to answer any questions
Cognitive Fatigue

- Cognitive Fatigue
  - Decreased concentration
  - Easily distracted
  - Difficulty learning or retaining
  - Fatigue increases during day

Assessed:
- Drop in grades
- Fatigue Inventory
  - Multidimensional Fatigue Inventory (MFI)
  - Brief Fatigue Inventory
  - Chalder Fatigue Scale
- Treated with Rest

Practice with the 3 tools
Vestibular Assessment

- Rule out Benign Paroxysmal Positional Vertigo (BPPV)
  - Treat with Dix-Hallpike and/or Epley Maneuver
- Is the balance center of the brain, coordinates head and eye movements, stabilizes vision during head movement
  - Assessed:
    - VOMS
    - Dizziness Handicap Inventory
  - Treated with Neuro-vestibular therapy

Ocular Assessment

- Eyes fail to move in tandem or function in binocular fashion
- Frontal headaches, difficulty with convergence, divergence, and tracking
  - Assessed:
    - VOMS- Convergence, Pursuit, Saccades (already practiced)
  - Treated with vestibular therapy
Ocular Assessment

- King-Devick
  - Athlete reads demo card, left to right, top to bottom, as quickly as possible with no errors
  - Reads card one, then two, then three
    - Evaluator follows key card to record any errors
    - Athlete may correct error quickly
  - Total score for three cards is recorded (without errors)

Ocular Assessment

- Practice

Cervical Involvement

- Concussive blow affects extra-cranial region (neck/spinal cord), results in lasting headaches referred from other areas
- Dermatome and Myotome assessments, treat or refer per standard.
  - Assess:
    - Physical Assessment
    - Checklist
  - Treat neck tightness (assess altered neck posture or restricted ROM)

**Figure Legend:**
- Post-Traumatic Migraine
  - Headache, nausea, light and/or noise sensitivity
  - R/O potential primary causes of vestibular, ocular, or cervicogenic
    - If present, treat those first
  - Assessed:
    - Behavioral management, Referral
  - Treatment:
    - Rest
    - Avoid exacerbating activities but utilize others
    - Diet, exercise, reduce stress, sleep, hydration, etc

Post-Traumatic Migraine

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Post-Traumatic Migraine

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PEOPLE IN SLEEPING BAGS...

ARE THE SOFT TACOS OF THE BEAR WORLD
Anxiety Mood

- Patient can’t turn thoughts off
  - Focus is on the symptoms and distress (Rumination)
  - Worry and negative emotional concerns
  - Establish is sports causes stress or missing them does

- Treatment: If no neuro-testing deficits, in presence of minor symptoms, other issues addressed, return them to normal ASAP!

Summary and Conclusions

- These are all assessments of that can be utilized by ATs, with minimal training, and at minimal cost.
- The best approach is to baseline but if time is limited, the S&S occurring after an injury can still be assessed.

References

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