Therapeutic Approaches to Pain Management

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Objectives

Participants will be able to identify most common treatment strategies to address chronic pain in young athletes.

Participants will be able to define the CRPS therapeutic progression from acute to return to sports/community activities.

Participants will be able to identify 3 community activities that assist the young athlete to manage chronic pain and progress back to community based sports.

Pain and Sports

• The primary cause of pain in children/adolescents is participating in a sport.

• Accounts for the number one reason for ER visits among children. (1)
What kind of pain??

Acute

Failure of acute injury to heal appropriately, can lead to chronic pain

Chronic

Describing Pain

Sharp, stabbing, dull, achy, stretching, sore, tingling...

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Chronic pain,
Chronic Inflammation

Treating chronic pain/inflammation....

- Rest
- Modalities
- Tissue mobility
- Therapeutic Exercise/Body Mechanics
- Flexibility
- Aerobic Activity
Modalities for pain modulation

- Heat vs. Cold
- Electotherapy
  - Transcutaneous electrical nerve stimulation
- Ultrasound
- Iontophoresis/phonophoresis
Machines are NOT enough!

Get Moving!!

- Tissue Mobility
- Don’t Forget the Core!
- Flexibility
Aerobic Activity

• 30min/day
  – Moderate Aerobic Activity
  – Low impact to high impact

Most Common Chronic Pain Treated in Athletes:

• Back Pain
• Abdominal Pain
• Chest Pain
• CRPS/RSD
Treatment...

• Addressing the cause, not just the symptoms....

• But, what if the symptoms are in the way of treatment??

Treatment Goal?

- Pain Management
- Increased Patient Control
- Increased Function
Back Pain

- Lumbar spine pain accounts for 5-8% of athletic injuries (Harvey Sports Medicine)
- Common sports involved: Football, Wrestling, Diving, Gymnastics, Dance, Cheerleading

Treating Back Pain

- Any motion or activity limitations/precautions
- Increasing activity gradually with emphasis on core activation/lumbar stabilization training
- Flexibility
Abdominal Pain

- Psychosocial components
- Common Sports involved: running, biking, swimming

Treating Abdominal Pain

- Breathing Techniques
- Stretching

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Chest Pain

• Common Sports involved: Golf, Rowing, Baseball pitching, Tennis, Wrestling

• Treatment: Rib mobility; breathing techniques; rest from overuse activities

CRPS

• Complex Regional Pain Syndrome/Reflex Sympathetic Dystrophy
  – May be history of acute trauma or not
  – Often LE, especially in athletes and adolescents
  – All sports involved...

• Physical Therapy/Occupational Therapy is noted as the mainstay of treatment
CRPS Treatment Guideline

- Participation
- Pain Assessment
- Desensitization techniques
- Edema
- Electrical Stimulation/TENS
- Animal Walks
- Functional Activities
- Sustained Weight Bearing
- Stress Loading
- Aerobic Activity
- Mirror Therapy
Literature Review of CRPS

  - Article summarized the current information about diagnosis and treatment in children
  - Sherry et al, Bernstien et al, and Murray et al; Demonstrate 90% “cure rate” with intensive PT
  - Lee et al: Frequency of treatment didn’t matter 1 time/week vs 3times/week
    - Small sample size
    - Similar amounts of exercise between the 2 groups
  - TENS units: Worth while to trial to determine effective of pain management to get through PT
  - All another medical intervention are to support the patient getting through PT (includes CBT, sympathetic blocks, medication-antidepressants and anticonvulsants)

Literature Review of CRPS

  - 103 children, mean age of 13 (87 girls); 49 of them followed for 2 years.
  - Interventions: 4hrs of therapy including aerobics, functionally-based exercises, 1-2hrs of hydrotherapy, and desensitization.
  - No modalities or medicines use
  Outcome measures: Pain, physical dysfunction, and recurrent episodes

Results: 92% were symptom free with a mean duration of therapy for 6 days
Those followed for 2 years: 88% still symptom free, but 31% had recurrence - Median time to recurrent episode was 2 months

Conclusion: Intense PT/exercise is effective in treating CRPS in children and associated with low rate of long-term dysfunction and symptoms.
Literature Review of CRPS

  - PT generally described goal of paper to outline more specific detailed guidelines on treatment interventions, frequency, and intensity.
  - Summarized goal in order of treatment priority including:
    • Manage edema, initiate gentle active movement, begin desensitization, use TENS unit as appropriate, contract bath if acute/mild case
    • Increase range of motion and flexibility increase stress loading (scrubbing and carrying), address posture deficits if appropriate
    • Function!

Will pain go away?

Focus on Function!
Back to Function, Back to Community, Back to Sport

- Daily Aerobic Activity
- Bike, Aquatic Therapy, Pilates/Yoga, Tai Chi

Return to Sport

...Rome wasn’t built in a day...
References...


References cont’d

References Cont’d


