Therapeutic Approaches to Pain Management

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Objectives

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??

Describing Pain
  • Sharp, stabbing, dull, achy, stretching, sore, tingling...

Chronic pain, Chronic Inflammation

Treating chronic pain/inflammation....
  • Rest
  • Modalities
  • Tissue mobility
  • Therapeutic Exercise/Body Mechanics
  • Flexibility
  • Aerobic Activity

Rest/Sleep

Modalities for pain modulation

Machines are NOT enough!

Get Moving!!
  • Tissue Mobility
  • Don’t Forget the Core!
  • Flexibility

Aerobic Activity

• 30min/day
  • Moderate Aerobic Activity
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?

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

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

**Rehab Goal**

**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, Bernstein 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...


12. References cont’d


References Cont’d

    2012.


