

Pain in Children and Young Adults with Autism (ASD)

Lonnie Zeltzer, M.D.

Director, Pediatric Pain Program

Department of Pediatrics

David Geffen School of Medicine at UCLA

Overview

- **Pain assessment in children with ASD**
- **Common pain problems in children with ASD**
 - **GI pain/symptoms**
 - **Dental/facial pain/headaches**
 - **Menstrual pain and premenstrual syndrome in post-menarchal girls**

Pain Assessment: the Questions

- **Do children with autism experience pain or are they insensitive to pain?**
- **Do behaviors in children with autism reflect pain?**
- **Are self injurious behaviors a manifestation of pain?**
- **How can we assess pain in children with autism?**

Pain Assessment in Children with Autism

- **Children with autism experience pain**
- **Total body behaviors may be muted in response to an acute pain event**
- **There is a lack of synchrony between pain behaviors and pain/stress biomarkers**

Pain Assessment in Children with Autism

- **Facial expressions may be more accurate behavioral measures of pain than other behaviors**
- **Parents and other observers may under-estimate children's pain**
- **Children with high functioning autism can rate their own pain**

Self-injurious Behaviors (SIB) and Pain

- Pain may be amplified for some children with ASD
- Individual differences in sensory processing
 - In filtering sensory stimuli
 - In muting sensory experiences
- Perseveration on a sensory experience
 - Becomes increasingly bothersome and distressing
- **SIB may be behavioral indicators of chronic pain: check site of the SIB for possible causes of pain**

Summary

- **Pain in children and young adults with autism is often under-recognized and under-treated**
- **There are pain assessment tools for non-verbal children**

Common pain problems in children with ASD

- **Gastrointestinal symptoms**
 - **Abdominal pain**
 - **Chest pain**
 - **Constipation**
- **Dental/facial pain**
- **Headaches**
- **Menstrual pain and premenstrual syndrome in post-menarchal girls**

Gastrointestinal (GI) Symptoms

- **Consider pain**; look for medical reasons for pain in children with autism who have changes in behavior (often called a “**setting event**”)
- **Visceral hyperalgesia**: potential cause of abdominal pain in autism:
 - Sensory sensitivity
 - Difficulty filtering sensory stimuli
 - Perseveration on symptoms
 - Difficulties in self-soothing and seeking social support to help reduce discomfort

Dental and Facial Pain

- **Dental caries: most common form of acute orofacial pain in children and adults with ASD**
- **Orofacial pain: more common in ASD than in controls**
- **Toothaches often under-recognized in children with autism**
- **Head banging may be a behavioral clue to dental caries**

Headaches



Conclusion

- **Children and young adults with autism have pain**
 - **have increased biomarkers even when behavior muted**
 - **Facial expression may help with diagnosis**
 - **Change in behavior may be marker of pain**
 - **Self-injurious behavior may indicate chronic pain**
- **Need to consider abdominal pain, dental caries, headaches, and menstrual pain**

Conclusion

- **What do behaviors tell us about pain?**
 - **Thrusting chest: acid reflux**
 - **Hitting bottom of chin: reflux, toothache**
 - **Rocking; pain anywhere**
 - **Head banging: headache, toothache, earache**
 - **Self-injurious behaviors: site of pain**
- **Treatment?**
 - **need to calm/reduce anxiety**
 - **Determine reasons for pain and treat**
 - **Provide pain control**

Pain Assessment in Autism

- **Zabalia et al, Validation of the French version of the non-communicating children's pain checklist - postoperative version. Can J Anaesth, 2011 Nov;58(11):1016-23.**
- **Dubois et al, Autisme et douleur – analyse bibliographique; Pain Res Manag. 2010 Jul-Aug; 15(4): 245–253**
- **Oberlander TF, Zeltzer LK. Pain in Autism. In Douleur et Santé Mentale, (Pain in Mental Health) (Eds. Marchand S, Saravane D, Gaumond I), Springer Publishers, Paris, France, 2013**