REPORT OF SCIENTIFIC MEETING

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First International Symposium on Pediatric Pain
July 22-24, 1988
Seattle, Washington

A landmark event in relief of childhood pain occurred when the First International Symposium on Pediatric Pain convened in Seattle, Washington, July 22-24, 1988. Sponsored by the University of Washington and Children's Medical Center, the symposium attracted a diverse group from all areas of the globe and all areas of professional interest. Anesthesiologists, pediatricians, nurses, psychologists, and others met and shared expertise, experience, and information. The symposium provided a forum for discussion and for establishing future collaboration into an important clinical area that has previously been neglected. Topics covered were as diverse as the participants, but chief among them were the assessment of pediatric pain and methods for dealing with childhood pain problems. Specific attention was given to regional anesthetic techniques, opioids, and behavioral strategies.

ASSESSMENT

Accurate assessment of pain in infants and small children remains difficult at best. Acoustical studies of infant crying were reported by Johnston (Montreal) and Fuller et al. (Denver, Colorado). Their findings confirm the clinical (and parental) experience that one can discriminate between painful and other cries, but do not define an objective, simple index for universal use. Observational pain scales for infants (Pomietto et al., Seattle, Washington, and Grunau et al., British Columbia), 2-6-yr-olds (Gauvin-Piquard et al., Villejuif, France), and severely handicapped children (McGrath et al., Ottawa, Ontario) were presented. Useful facial and body cues were identified, but, again, a simple method of appraisal could not be defined.

Walco et al. (New Hyde Park, New York) demonstrated that school-age children reliably defined a pain threshold, and that children with juvenile rheumatoid arthritis and sickle cell disease had significantly lower pain thresholds than controls. Other influences on pain assessment came to light as well. Abu-Saad (Maastricht, the Netherlands) showed differences in pain perception between French and Dutch children, while Denyes and Villarruel (Detroit, Michigan) demonstrated that Beyer’s “Oucher” scale for young children may be improved by using different scales for children from specific ethnic backgrounds.

More disturbing than limited ability to accurately assess childhood pain is reluctance to act on these assessments. Foster and Hester (Denver, Colorado) reported that “high ratings for pain (by either the nurse or the child) are only moderately associated with administration of analgesia.” Additionally, Gadish and Gonzales (Miami, Florida) found that age of the child had a marked effect on whether a particular patient given an analgesic, that acetaminophen was prescribed below normal range in almost half of their patients, and that common misconceptions regarding pain persist among nurses, even in a major children’s hospital. These studies and others underscore the need for education of physicians, nurses, and others regarding pain in children and current methods of assessment and treatment.

REGIONAL ANESTHETIC TECHNIQUES

Claude Ecoffey (Paris) reviewed recent advances in pediatric regional anesthesia. Spechowicz and Pahle (Akersbakken, Norway) reported excellent success with regional use of continuous infusion of local anesthetics. They used lumbar epidural (57) and interscalene brachial plexus (18) catheters in 75 children with juvenile rheumatoid arthritis undergoing surgery. Postoperative continuous infusion of local anesthetic (4–6 mg·kg⁻¹·day⁻¹ of bupivacaine 0.25% or less) resulted in excellent analgesia and mobilization with no side effects.

Krane et al. (Seattle, Washington) presented their experience with postoperative analgesia provided by caudal morphine in children. Rosen et al. (Ann Arbor, Michigan) used caudal morphine to control pain after pediatric cardiac surgery. Reduced pain scores and a decreased incidence of postoperative atelectasis were seen compared with a control group.

Borde et al. (Boston, Massachusetts) described their success using epidural and subarachnoid analgesia in treatment of cancer pain in patients as young as 5 months of age. They have used opioids and local anesthetics singly and in combination, and achieved success even in patients refractory to enormous doses of parenteral opioids.

OPIOIDS

More traditional routes of opioid administration also received attention. Laurence Mather (Bedford Park, Australia) reviewed opioid pharmacology and K. J. S. Anand (Boston, Massachusetts) reviewed endocrine and metabolic responses to stress and pain. Data on the ontogeny of stress responses in fetus, neonate, and child were presented by Ward-Platt et al. (Newcastle upon Tyne, U.K.). Dr. Anand also presented preliminary data showing decreased stress response with high dose sufentanil anesthesia for cardiac surgery in neonates. Myron Yaster (Baltimore, Maryland) pointed out, however, that the stress response might be beneficial to sick infants and that obliterating it may not be entirely therapeutic.

Prolonged postoperative pain relief was reported by Savoia et al. (Naples, Italy) using buprenorphine and by Beyer et al. (Boston and San Francisco) using methadone. Several groups presented successes with opioids for pediatric cancer pain. Schecter and colleagues (Farmington and Hartford, Connecticut) studied the fentanyl lollipop as an analgesic method for children undergoing painful procedures. Results were promising, although some problems with dose titration remain.
BEHAVIORAL

James Varni (Los Angeles, California) divided current behavioral approaches to pain management into three broad categories: 1) cognitive behavioral self-regulation, 2) systematic desensitization, and 3) socioenvironmental modification. Various investigators presented applications of these methods in detail. Some success was obtained in children with headache, cancer, and arthritis pain, as well as in children undergoing surgery and routine immunizations.

The symposium closed with comments by co-chairmen Donald Tyler and Elliott Krane (Seattle, Washington). They stressed the need for education, research, and progress across a multidisciplinary front. This First Symposium has been a strong beginning. The words borrowed by K. J. S. Anand to close his presentation make a fitting close for this report as well, challenging us to improve our knowledge, our skills, and our compassion: "When I hear a baby’s cry of pain changing to a normal cry of hunger—to my ears that is the most beautiful music."—Albert Schweitzer.

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