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Innovations in Otolaryngology

Rady Children's Hospital San Diego

Rady Children's - A comprehensive system focused solely on children.

PEOPLE

Dr. Matthew Brigger brings expertise in airway disorders

Matthew Brigger, M.D., M.P.H., was recently recruited to the Division of Otolaryngology at Rady Children's Hospital-San Diego. His expertise is in pediatric airway and swallowing disorders. A key role for Dr. Brigger will be to direct the multidisciplinary airway, voice and swallowing center to manage complex disorders of the upper airway. His focus will be to coordinate and enhance cutting-edge clinical intervention as well as novel research with a team that includes pediatric specialists in pulmonology, gastroenterology, cardiothoracic surgery, general surgery, critical care, speech-language pathology and occupational therapy.

Surgically, Dr. Brigger has extensive experience in advanced open techniques, such as slide tracheoplasty, as well as minimally invasive endoscopic techniques, including endoscopic laryngeal cleft repair and phonomicrosurgery. These skills enable him to treat the full breadth of complex congenital and acquired airway anomalies in children. He has a particular interest in children with tracheostomies, with a goal of decannulation through state-of-the-art airway procedures.

Dr. Brigger is academically active and serves in a variety of leadership roles nationally. His research focuses on evaluating treatment outcomes for various strategies in caring for children with breathing and swallowing disorders, along with investigating the epidemiology of head and neck disease. He has authored over 50 peer-reviewed studies and has presented at national and international meetings. A strong proponent of providing care based on the best available research, he was named a 2015 Cochrane Scholar of the American Academy of Otolaryngology - Head and Neck Surgery for his dedication to evidence-based medicine.

The addition of Dr. Brigger provides the division with a deep commitment to innovation through research while delivering precision care to patients with airway abnormalities.

PROGRAMS

Sleep program addresses complex health issues

Rady Children's multidisciplinary Complex Sleep Apnea Program is designed to meet the needs of children with complex health issues who have persistent sleep apnea despite traditional management for obstructive sleep apnea. The conditions treated include obstructive sleep apnea, complex sleep apnea, upper airway obstruction, obstructive hypoventilation, sleep-disordered breathing and snoring.

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innovation belongs in every moment

During their appointments, patients see two sleep specialists: Javan Nation, M.D., from the Division of Otolaryngology, and Daniel Lesser, M.D., from the Division of Respiratory Medicine. This integrated approach allows for instant collaboration and the ability to create a management plan that considers the unique features of each child's sleep disorder. Parents can also avoid the inconvenience of traveling to see multiple specialists.

Dr. Nation

Dr. Lesser assesses the child's polysomnography, evaluates if he/she is a candidate for positive airway pressure therapy and identifies the need to further evaluate the child or treat associated illnesses. Dr. Nation provides expertise in anatomic assessment of the upper airway using in-office laryngoscopy, as well as drug-induced sleep endoscopy and cine MRI. These diagnostic tools help to identify the site of obstruction and design a customized surgical plan for each patient.

The majority of the patients have already had their tonsils and adenoids removed, and secondary sleep surgery procedures are needed. The surgical procedures most often used include palate procedures, such as expanded sphincter pharyngoplasty; tongue base procedures, including posterior midline glossectomy, lingual tonsillectomy and epiglottopexy; and laryngeal procedures, such as supraglottoplasty for occult laryngomalacia.

Drs. Nation and Lesser spent more than a year planning the program, which involved visiting four academic medical centers providing services for complex sleep apnea patients. Currently, the program is only seeing patients from Rady Children's but soon plans to accept referrals from providers throughout the San Diego community and outside the region.

INNOVATIONS

Conference offers real-time interactive learning

This past November, Rady Children's hosted the 17th International Endoscopy Days, led by Otolaryngology Division Chief Seth Pransky, M.D. The two-day event drew more than 100 attendees from over 15 different countries.

Using video conferencing, Dr. Pransky and his colleagues presented four endoscopic airway cases from the Rady Children's operating room. In an auditorium at UC San Diego, attendees viewed the live presentation and interacted with the surgeons, being fully involved with the diagnostic and therapeutic aspects of the procedures. After each case, a discussion occurred regarding the operative intervention, followed by lectures from leading national and international authorities on related airway topics.

RESEARCH

Dr. Wen Jiang pursues collaborative research

Wen Jiang, M.D., an otolaryngologist specializing in head and neck oncology, collaborates with several divisions at Rady Children's on research to improve pediatric care.

Having a special interest in thyroid neoplasms in children, Dr. Jiang serves on a multidisciplinary thyroid tumor board with members of the Endocrinology/Diabetes division and Pathology division.The work by the board has resulted in two recent articles: A summary of the clinical experiences with patients, published in the *International Journal of Pediatric Endocrinology*, and a paper on the genetic mutational analysis of the same patient cohort, published in the journal *Thyroid*.

Dr. Jiang has also partnered with the Division of Emergency Medicine on several IRB-approved projects. She is in the process of completing a metal detector study to localize metallic esophageal foreign bodies in patients, with the goals of minimizing radiation exposure and expediting the triage of these patients in the emergency room. Dr. Jiang provided a poster presentation on this study at the 2015 annual meeting of the American Society of Pediatric Otolaryngology.

Another project involved the utilization of computed tomography in the evaluation of pediatric neck abscesses. This was recognized at the 2015 American Academy of Pediatric national conference with a podium presentation and has led to a collaboration among the Division of Otolaryngology, Division of Emergency Medicine and Division of Pediatric Hospital Medicine to create a clinical pathway for the evaluation and management of deep neck infections in children.

Dr. Jiang is an active member of the American Thyroid Association, American Society of Pediatric Otolaryngology and Society for Ear, Nose and Throat Advances in Children (SENTAC).

The conference also included panel discussions of current approaches to laryngomalacia, voice management after airway surgery, vocal cord immobility intervention and management of supraglottic away obstruction, along with an extensive presentation on tracheal surgery and a panel discussion on airway interventions. Special lectures included "Laryngeal Robotic Surgery," "Managing the Young Professional Voice" and "New Laryngeal Stents and Advanced Technological Tools for Airway Management."


Dr. Pransky

Audience participation was solicited through an audience response system, Q&A sessions and an Ask the Expert forum.