European Respiratory Society
Annual Congress 2013

Abstract Number: 5273

Publication Number: P4031

Abstract Group: 4.2. Sleep and Control of Breathing

Keyword 1: Sleep disorders **Keyword 2:** Children **Keyword 3:** No keyword

Title: Outcome of sleep assessment (SA) in children with cranio-facial anomalies (CFA): Experience of supra-regional centre

Dr. Rajesh 6424 Srikantaiah rajeshms88@gmail.com MD [1], Mr. Hiroshi 6425 Nishikawa Hiroshi.Nishikawa@bch.nhs.uk [2], Mr. Guirish 16299 Solanki Guirish.Solanki@bch.nhs.uk [2], Mr. Steve 16300 Dover Steve.Dover@bch.nhs.uk [2], Dr. Priti 16301 Kenia Priti.Kenia@bch.nhs.uk MD [1] and Dr. Satish 32258 Rao Satish.Rao@bch.nhs.uk MD [1]. [1] Respiratory Department, Birmingham Children's Hospital, Birmingham, West Midlands, United Kingdom, B4 6NH and [2] Cranio-Facial Surgery, Birmingham Children's Hospital, Birmingham, United Kingdom, B4 6NH .

Body: Introduction It is recognised that CFA patients can develop sleep disordered breathing (SDB). SA includes clinical history, examination and investigations e.g. polysomnography. In this study, we sought to determine the use of SA and its impact on clinical management in symptomatic CFA patients at a Supra-regional Centre. Method Retrospective analysis of patients with syndromic and non–syndromic CFA who reported symptoms of SDB was undertaken at Birmingham Children’s Hospital (BCH), UK. Demographic features, clinical signs, symptoms, results of multichannel sleep study and clinical outcome following SA were collected over 2 year period (January 2011-December 2012). Results 14 patients with CFA and SDB symptoms were referred for SA [age (range): 2-16 years]. 11 (80%) had a diagnosis of specific syndromic (e.g. Apert’s) and 3 (20%) had non-syndromic craniosynostosis. SA showed features of SDB in 13 (90%) [mild obstructive sleep disordered breathing (OSDB) in 5 (38%), moderate OSDB 4 (30%) and severe OSDB 3 (23%)]. 1 patient had no evidence of OSDB and 1 patient had central SDB. Based on the SA results, 5 (35%) children were managed conservatively, 3 (21%) started on non-invasive ventilation (NIV), 6 (44%) had surgery (2-facial advancement and 4-adeno-tonsillectomy). Conclusion SA assessment allowed non-surgical management in significant proportion of symptomatic CFA patients including NIV. In those who required surgery, it informed optimum timing, further investigations and the type of surgery. These findings suggest that SA should be performed in all symptomatic CFA patients. Further research is required to ascertain role of SA in asymptomatic patients.