

Co-morbidities in Children with ASD Undergoing Oral Rehabilitation Under General Anesthesia

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Objective

Investigate the medical and dental comorbid conditions among patients with Autism Spectrum Disorder (ASD) who underwent oral rehabilitation under general anesthesia at University of Iowa Hospitals and Clinics.

Methods

Patient electronic medical and dental charts, with a diagnosis of ASD who underwent general anesthesia between January 2016 and May 2019, were retrospectively reviewed to identify existing comorbid conditions. Statistical analysis consisted of descriptive and bivariate analyses ($\alpha=0.05$).

Results

A total of 160 patients aged 3-18 years fulfilled the inclusion criteria. Of these, 78% were males and 69% had public insurance. Bivariate analysis revealed that subjects who had 8-15 comorbidities were likely older. The most common medical co-morbid conditions were communication barriers (86%), intellectual disability (82%), and developmental delay (81%). Behavior severity increased with anxiety (62%), aggression (49%), and non-verbal (28%). Of note, congenital heart disease (10%), genetic syndromes (13%), premature birth (11%), and obesity (23%) were observed. Dental caries (83%), poor oral hygiene (72%), and gingivitis (44%) were the most common dental conditions observed. Radiographs (99%), sealants (73%), stainless steel crowns (59%), and extractions (55%) were the most common treatment rendered. Subjects who had full permanent dentition and amalgam filling were 3.45 and 2.88 times as likely to have 8-15 comorbidities compared with those who had no full permanent dentition and had no amalgam filling.

Conclusions

As patients with ASD age, the number of comorbidities increase. Healthcare providers should be aware of the co-morbidities associated with patients with ASD and how these impact overall health and treatment planning.