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ORIGINAL ARTICLES

Nasopharyngeal Airway for Management of Airway Obstruction in Infants With Micrognathia

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Objective: Describe airway management using nasopharyngeal airway in infants.

Design: Retrospective case series (1996 to 2006).

Setting: Tertiary pediatric hospital.

Patients, Participants: The craniofacial database of Seattle Children's Hospital was searched to identify patients with one of the following diagnoses: micrognathia, secondary cleft palate, branchial arch anomalies, Pierre Robin sequence (PRS), or velocardiofacial syndrome. Thirty-five (10.9%) of the 320 infants born between January 1, 1996, and March 31, 2006, identified using the criteria listed above were managed with nasopharyngeal airway (NPA) during infancy.

Interventions: Use of NPA.

Main Outcome Measure: Summary statistics describing the distribution of the infants' demographic characteristics, duration, and timing of their NPA placement, need for tracheotomy, feeding interventions, and death.

Results: Of the 35 patients included in this case series, 60% (21) were male. Eighteen (51.4%) patients had the diagnosis of PRS, 13 (37.1%) had secondary cleft palate and other craniofacial anomalies, and four (11.4%) had branchial anomalies and micrognathia (nonsyndromic or syndromic). Thirty-one children (88.6%) were born at term. Mean and median age at initial NPA placement was 3.2 and 1.3 weeks, respectively; median duration of NPA was 8.0 weeks. Nine children received tracheotomies. Feeding tubes were required in 85.7% of patients. Two children died; however, neither death was attributed to airway obstruction or the use of NPA.

Conclusions: NPA is one option in the management of patients with craniofacial anomalies and airway obstruction. The majority of nonsyndromic PRS patients treated with NPA during infancy did not require airway intervention beyond NPA.

KEY WORDS: *airway management*, *nasopharyngeal airway*, *Pierre Robin sequence*

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