

A Detection and Therapeutic Device to Overcome Sleep Apnea in Infants [†]

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Abstract: Among the various sleep-disordered breathing patterns infant's experience, like periodic breathing, premature apnea, obstructive sleep apnea, has been considered a major cause of concern. Upper airway structure, mechanics of the pulmonary system, etc., are a few reasons why the infants are vulnerable to obstructive sleep-disordered. An imbalance in the viscoelastic properties of the pharynx, dilators, and pressure can lead to airway collapse. A low level of oxygen in blood or hypoxemia is considered a characteristic in infants with severe OSA. Invasive treatments like nasopharyngeal tubes, continuous positive airway pressure (CPAP), or tracheostomy are found to be helpful in most cases where infants experience sleep apnea. This paper proposes an efficient system for monitoring obstructive sleep apnea in infants on a long-term basis, and if any anomaly is detected, the device provides Continuous Airway Pressure therapy until the abnormality is normalized.

Keywords: Apnea; CAP; OSA; Oxygen.

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Conflicts of Interest

The authors declare no conflict of interest.