Emergence delirium (ED) has a well-known association with preoperative anxiety in young children. (1) Anxious parents are more likely to have children who have emergence delirium. (2) Anxiety states are associated with higher SNS arousal.

Hypothesis. We postulated that emergence delirium is correlated with increased sympathetic nervous system activity prior to awakening from anesthesia. Thus, heart rate and respiratory rate at emergence could be used to predict which children would manifest emergence delirium on awakening.

Discussion

Emergence delirium is a short-lived entity, however causes a great deal of anguish for patients and their families. While tachycardia and increased respiratory rate are not exclusively indicative of sympathetic nervous system activity, there are few other etiologies in which these two occur in synchrony in healthy children.

Treatment Implications: If increased sympathetic nervous activity is an entity which either facilitates or causes emergence delirium, then SNS blockade may decrease the incidence of emergence delirium.

Conclusion

The initial data in our study, while not geared towards emergence delirium as a primary focus, seem to point toward increased sympathetic nervous arousal as correlation or causation in its pathogenesis. This serves as preliminary data towards further study of this clinical entity.