Propranolol in the treatment of airway hemangiomas

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ABSTRACT

Background: Airway hemangiomas are common in infants and are associated with significant upper airway symptoms. Current treatment modalities include systemic corticosteroids and surgical intervention, both of which can have limited success. Propranolol is an alternative treatment for airway hemangiomas that has shown promising results with the treatment of infantile hemangiomas (IHs) in various locations.

Objective: To evaluate propranolol as an effective initial treatment of airway hemangiomas.

Study Design: Case series

Materials and Methods: Medical record of 4 pediatric patients with airway hemangiomas (3 with subglottic hemangiomas (SGHs) and 1 with a subglottic laryngeal hemangioma) were reviewed. The patients received propranolol as their initial treatment for the IHs, and the response to treatment was noted. All patients were monitored for 6 months or more during propranolol treatment and for 3 to 4 months after treatment cessation.

RESULTS: All patients were treated with propranolol at a dose of 1 to 1.5 mg/kg/day. Marked improvement in symptoms was noted during propranolol treatment. Two patients were discharged after 3 weeks of treatment, and the other 2 were discharged after 2 months of treatment. The symptoms improved in all patients without the need for further treatment or hospitalization.

Conclusion: Propranolol is an effective treatment for airway hemangiomas and should be considered as initial treatment for airway hemangiomas.

BACKGROUND

Airway hemangiomas (AHs) are a common presentation of the infantile hemangiomas in the lower respiratory tract. They are often associated with sleep-related symptoms, such as stridor and apnea, which can lead to significant morbidity and mortality. Treatment options include systemic corticosteroids and surgical intervention, both of which can have limited success. Propranolol is an alternative treatment for airway hemangiomas that has shown promising results with the treatment of infantile hemangiomas (IHs) in various locations.

MATERIALS AND METHODS

A retrospective chart review of 4 pediatric patients with airway hemangiomas (3 with subglottic hemangiomas (SGHs) and 1 with a subglottic laryngeal hemangioma) were reviewed. The patients received propranolol as their initial treatment for the IHs, and the response to treatment was noted. All patients were monitored for 6 months or more during propranolol treatment and for 3 to 4 months after treatment cessation.

RESULTS: All patients were treated with propranolol at a dose of 1 to 1.5 mg/kg/day. Marked improvement in symptoms was noted during propranolol treatment. Two patients were discharged after 3 weeks of treatment, and the other 2 were discharged after 2 months of treatment. The symptoms improved in all patients without the need for further treatment or hospitalization.

CONCLUSION

Propranolol is an effective treatment for airway hemangiomas. Further studies are needed to determine the optimal dose and duration of treatment, as well as the long-term efficacy and safety of propranolol for the treatment of airway hemangiomas.

REFERENCE


