

The Position Stated is based on current evidence and expert medical opinion available at the time and was endorsed by the COS in November 2019.



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Canadian Glaucoma Society Evidence-Based Recommendations for the Risk of Acute Angle Closure Glaucoma with Routine Use of Hyoscine-n-Butylbromide (Buscopan) for Gastroenterological Procedures

Background

Hyoscine-n-butylbromide (Buscopan) is a commonly used anticholinergic medication for gastroenterological endoscopic procedures because of its ability to induce smooth muscle relaxation and decrease spasm¹⁻¹⁰. It can also be used for radiologic procedures of the gastrointestinal tract¹¹⁻¹². Buscopan may increase detection of colorectal adenoma by up to 30%, thus this medication should not be withheld needlessly⁵.

Acute angle closure glaucoma is an emergent and potentially blinding condition. It typically presents with painful, red eye(s), decreased vision, headache, as well as nausea and vomiting¹³. While rare, certain classes of medications may precipitate an attack of angle closure. These medications include anticholinergic medications such as Buscopan, as well as adrenergic and cholinergic agents, antidepressants, anticoagulants, and sulfa-based agents¹³. Previous guidelines have stated that Buscopan should be withheld in patients with a history of angle closure glaucoma, resulting in a majority of gastroenterologists withholding the medication if the patient gave any history of glaucoma².

The practice of withholding Buscopan for a history of glaucoma is of limited value. Specifically, Buscopan does not cause open-angle glaucoma and therefore enquiring to a history of any form of glaucoma is not helpful^{2,11}. The practice of enquiring about a history of angle closure glaucoma is also not likely beneficial, as patients who report a history of angle closure or narrow angles have probably received treatment and are no longer at risk¹⁴⁻¹⁶. The patients at risk of acute angle closure glaucoma are those who have not been diagnosed and treated for predisposing narrow angles and are therefore unaware of their condition.

Conclusion

Buscopan is a useful medication in gastroenterological procedures, but it does carry a small risk of inducing angle closure glaucoma. The practice of inquiring about a history of glaucoma in patients being considered for treatment with Buscopan is of minimal value, as the only patients at risk of angle closure glaucoma are those who are not aware of their condition. Consequently, the Canadian Glaucoma Society recommends that physicians using Buscopan should instead focus on counseling patients on signs and symptoms of acute angle closure: painful, red eye(s), decreased vision, headache, nausea and vomiting. Patients should be advised to present to the nearest emergency department should they develop any of these symptoms following their procedure.

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