PP02

Long-term safety and efficacy of Glycopyrronium tosylate in patients with primary axillary hyperhidrosis: a systematic review and meta-analysis

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Abstract

***Background*:** Hyperhidrosis, a condition characterized by excessive sweating, affects ≈ 4.8% of the US population. (1) Glycopyrronium tosylate (GT) is a topical anticholinergic drug approved for primary axillary hyperhidrosis (PAH) treatment. (2) However, no meta-analysis exists on GT's long-term safety and efficacy.

***Aim*:** To evaluate the long-term safety and efficacy of GT as a treatment for PAH.

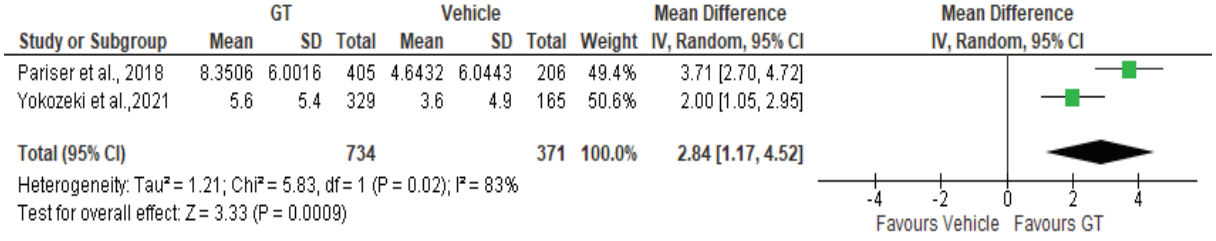
***Methods*:** We systematically searched PubMed, Scopus, and ClinicalTrials.gov. Study selection, quality assessment, and data extraction followed the eligibility criteria. The primary endpoints were changes in the Dermatology Life Quality Index (DLQI), Hyperhidrosis Disease Severity Scale (HDSS), and Axillary Sweating Daily Diary (ASDD) or Axillary Sweating Daily Diary – Change (ASDD-C). Safety endpoints included mydriasis, dry mouth, urinary hesitation, and treatment-emergent adverse events (TEAEs). Statistical analysis was conducted using RevMan 5.1.

***Results*:** Our meta-analysis demonstrated that topical GT is clinically effective in treating PAH. GT significantly improves the quality of life of patients, as measured by the DLQI (MD = -2.81, 95% CI = [-4.04, -1.59], P = 0.001), HDSS (OR = 3.72, 95% CI = [2.92, 4.74], P = 0.001), and ASDD/ASDD-C (OR = 4.91, 95%CI = [3.75, 6.44], P = 0.001). Adverse effects such as mydriasis, dry mouth, and urinary hesitation were observed; however, no difference was found between GT and control groups in serious TEAEs, deaths, and severe TEAEs.

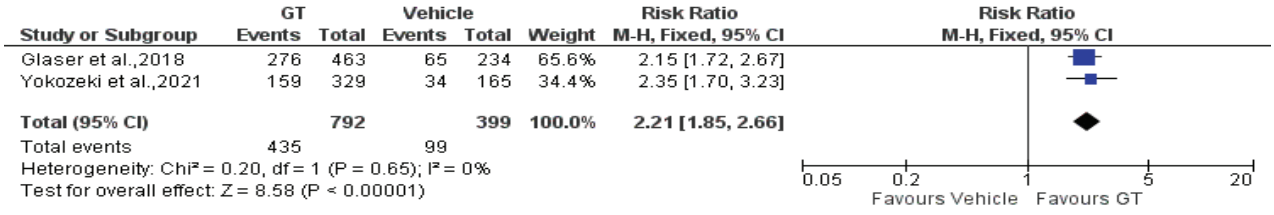
***Conclusion*:** Topical GT is effective with minimal side effects, providing a valuable option for patients unresponsive to or experiencing significant side effects from other treatments.

Efficacy outcomes:

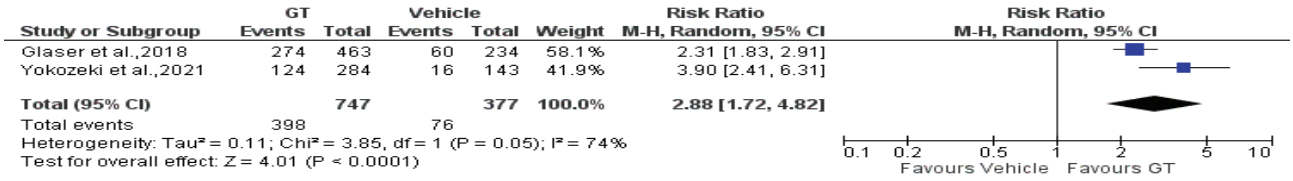
DLQI, change from BL to week 4.



HDSS.



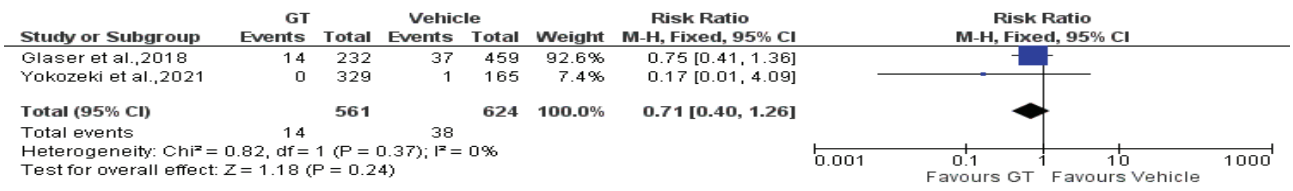
ASDD/ASDD-C.



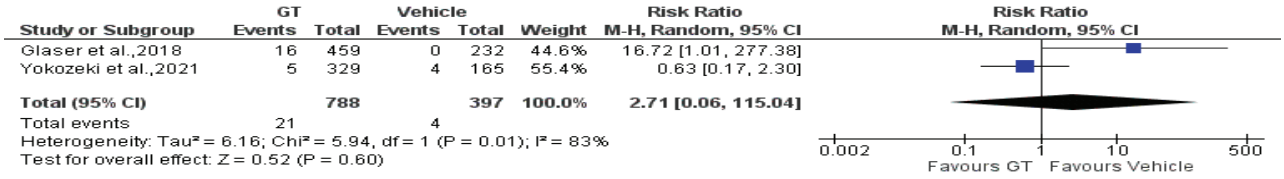
Sweat production response at week 4.

Safety outcomes:

Pruritus.



Blurring of vision.



Keywords: *hyperhidrosis*; *axillary*; *efficacy*; *Glycopyrronium tosylate*

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