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LETTER TO THE EDITOR

Self-administered intranasal etripamil: a breakthrough in PSVT first-line treatment

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Dear Editor,

PSVT, AVRT, and AVNRT are types of arrhythmia resulting from disruptions in the heart's electrical activity, originating from the sinoatrial node and propagating via the atria to the AV node, causing sudden symptoms like palpitations and dyspnea. These disruptions occur due to abnormal automaticity, triggered activity or reentry in the electrical activity.[1] Trials show that the Valsalva maneuver stimulates the parasympathetic nervous system, and through that may aid the termination of the arrhythmia, with an efficacy that varies from 19% to 54%. Being invasive and a skill-requiring procedure, means that there exists a need for new options. Adenosine, a second-line treatment, has 90% effectiveness but requires intravenous administration and hospitalization. Verapamil shares benefits with adenosine but may cause negative chronotropism and inotropism.[2]

The strain on acute medical services is increased by the absence of an efficient self-administered PSVT that's approved and reimbursed. Etripamil is a new FDA-approved intranasal formulation of a short-acting, fast-acting calcium channel blocker that would be used to treat PSVT patients outside of hospitals. Etripamil is a CCB drug that mainly affects AV nodal conduction by acting on the L-type calcium channel. In order to stop SVT, etripamil prolongs refractory periods by blocking calcium ion influx through the calcium slow channels. With a half-life of under five minutes, it is a short-acting drug and impacts the slow pathway bridge sharing voltages in the fast pathway region and the surrounding coronary sinus. The trials, NODE-1 and RCT NODE-303, assessed the safety, efficacy, and patient-reported outcomes (PROs) of self-administered intranasal etripamil for treating multiple episodes of PSVT in real-world settings and patients with AVNRT symptoms reported better outcomes.[3]

There were no major side effects linked to the medication; instead, most adverse events were minor, temporary, and restricted to the nasal administration site. Over time, PROs showed consistent gains in high treatment satisfaction, anxiety reduction, and better quality of life after treatment.[4] Two comprehensive studies and three randomized controlled trials (RCTs) with 1,652 individuals were examined in a recent systematic review and meta-analysis. Within 15 min, nasal verapamil considerably raised the CSR in comparison to a placebo.[5] These results provide credence to intranasal etripamil's potential as a rapid, secure, and efficient PSVT at-home treatment. In conclusion, intranasal etripamil spray has become a convenient therapeutic option for PSVT patients outside the hospital.

Contributions

MK, conceptualization, manuscript original drafting; AA, script editing; SR, manuscript final version reviewing. All authors made a substantive intellectual contribution; read and approved the final version of the manuscript and agreed to be accountable for all aspects of work.

Conflict of interest

The authors declare no conflict of interest, and all authors confirm accuracy.

Availability of Data and Material

The content is based on existing literature and publicly available data.

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