Etripamil Nasal Spray Reduces Heart Rate in Patients With Paroxysmal Tachycardial Dysrhythmia Prior to Conversion to Sinus Rhythm

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Background

- Paroxysmal supraventricular tachycardia (PSVT) is characterized by intermittent episodes of tachycardia with loss of normal sinus rhythm.
- Etripamil (Milestone Pharmaceuticals) is an intranasal sodium channel blocker that rapidly terminates episodes of PSVT.
- Etripamil is rapidly absorbed and reaches a peak plasma concentration within 5 minutes of nasal administration.
- The primary endpoint was mean change from baseline in heart rate (HR) and conversion to sinus rhythm (SR).

Methods

- **Study Design**: Randomized, double-blind, placebo-controlled, parallel-group, multicenter study.
- **Study Population**: Men and non-pregnant women ages 18 to 75 years with PSVT and adequate HR data available for analysis.
- **Randomization**: 2:1 randomization to receive etripamil or placebo nasal spray.
- **Eligibility Criteria**: Patients with a mean HR >100 bpm before etripamil administration.
- **Outcome Measures**: HR at 1, 3, and 5 minutes after administration and conversion to SR.

Results

- **Primary Endpoint**: Mean HR reduction from baseline was significantly greater with etripamil compared to placebo at 1, 3, and 5 minutes.
- **Conversion to SR**: While the majority of patients converted to SR within 60 minutes, etripamil was more effective in patients who were female, White, had a higher baseline mean HR, and were treated within 30 minutes of PSVT onset.
- **Patient-Reported Outcomes**: Mean change in HR from baseline was positively correlated with patient-reported relief of symptoms.
- **Patient-Reported Satisfaction**: Among patients treated with etripamil, mean ± standard deviation (SD) age was 57.2 ± 12.6 years, most patients were female (67.6%), and the majority were White (87.3%).

Conclusions

- Etripamil nasal spray rapidly reduces HR and facilitates SR conversion in patients with PSVT.
- Etripamil is an effective and well-tolerated treatment option for patients with PSVT.

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References