INTRAVENOUS VERNAKALANT (Brinavess) FOR THE TREATMENT OF NEW ONSET ATRIAL FIBRILATION

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ABSTRACT

BACKGROUND

Vernakalant is a novel antiarrhythmic agent that shows preferential effects for atrial tissue and has limited actions on ventricular tissue.

Intravenous vernakalant effectively converts recent onset atrial fibrillation; conversion achieved quickly, has a short half-life and allows early hospital discharge.

We present our experience with Vernakalant at Hillel Yaffe Medical Center .

METHODS

We studied 101 patients presenting to the emergency department at our hospital with resent atrial fibrillation. All patients were reviewed for the presence of exclusion criteria such as:

- Heart failure class NYHA III or NYHA IV
- Acute coronary syndrome in the last 30 days
- Severe aortic stenosis
- Systolic Blood Pressure < 100mmHg
- Prolong QT interval
- Severe bradycardia, second degree heart block in the absence of pacemaker
- Use of intravenous rhythm control anti-arrhythmic (class I or III) 4 hours prior Vernakalant infusion
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All patients included received one single vial of 500 mg/25 ml of vernakalant, divided to a starting dose of intravenous 3 mg/kg vernakalant infused over 10 minutes , during continuous monitoring blood pressure – and if no return to sinus rhythm than infused a second dose of 2mg/kg after a 15 minutes pause, once again during 10 minutes , while monitored for blood pressure and for possible side effects.

RESULTS

We studied 101 patients presenting to the emergency department at our hospital with resent atrial fibrillation.

Of the 101 patient who received the drug:

- The overall efficacy – conversion rate – was 74.25% (75 patients out of 101 patients).
- 76 % (57 patients out of 75 patients) converted to sinus after a single dose – the remaining18 patients converted after the second dose.
- The average time to conversion after one dose was 12.7 minutes.
- The average combined time to conversion (after a single dose and II dose) was 21 minutes.
- 100% of the patients (75 patients out of 75) were discharged home with normal sinus rhythm within 3-4 hours after admission , with no need for hospitalization and hospital follow up.
- One of the patients returned to sinus and at the time of monitoring returned to atrial flutter.

CONCLUSION

Our results support recent published findings regarding the efficacy and safety of Vernakalant for the treatment of new onset atrial fibrillation .