EMERGENCY EDUCATION CENTER
UNIVERSITY OF WISCONSIN HOSPITAL AND CLINICS

Course: Pharmacology
Content: VASOPRESSIN

A. ACTIONS

1. Naturally occurring anti-diuretic hormone (ADH)

2. High doses (much higher than needed for it to act as an ADH) acts as a non-adrenergic peripheral vasoconstrictor—direct stimulation of smooth muscle
   Example—GI Tract, Uterus etc

3. Vasopressin increases the reactivity of blood vessels to the constrictive action of the catecholamines

B. INDICATIONS

1. Ventricular fibrillation
2. Pulseless ventricular tachycardia
3. Asystole
4. PEA
5. Hemodynamic support in vasodilatory

C. SIDE EFFECTS

1. Pallor
2. Angina
3. Nausea
4. Intestinal cramps
5. Bronchial constriction
6. Uterine contractions
• Does not have the adverse effects of Epinephrine on the heart such as ischemia, irritability and the propensity for Ventricular Fibrillation to occur.

D. PRECAUTIONS

1. AHA Increases peripheral vascular resistance, may provoke cardiac ischemia and angina

2. AHA-Not recommended for responsive patients with coronary disease

3. Asthmatics

E. CONTRAINDICATIONS

1. None in the PNB

F. DOSAGE

1. 40 U IV bolus
2. Can be given ET

G. ADMINISTRATION

1. Single, one time dose
2. May replace either the first or second dose of Epinephrine in the above rhythms
3. 10-20 minute half life
4. Continuous infusion = 0.02-0.04 units/minute for vasodilatory shock

H. MISCELLANEOUS

1. AHA 2010 “demonstrated no differences in outcomes vs Epinephrine as a first line vasopressor in cardiac arrest”
A. ACTIONS

1. Naturally occurring anti-diuretic hormone (ADH)

2. High doses (much higher than needed for it to act as an ADH) acts as a nonadrenergic peripheral vasoconstrictor - direct stimulation of smooth muscle

3. During CPR-causes intense peripheral vasoconstriction of skeletal muscle, skin, intestines & fat

4. Causes NO increased myocardial oxygen consumption during CPR because it has no beta stimulation properties
   - Post resuscitation produces no increased myocardial demand because baroreceptor-mediated bradycardia in response to transient hypertension remains intact

B. INDICATIONS

1. Ventricular fibrillation
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C. SIDE EFFECTS

1. Pallor
2. Angina
3. Nausea
4. Intestinal cramps
5. Bronchial constriction
6. Uterine contractions
   - Does not have the adverse effects of Epinephrine on the heart such as ischemia, irritability and the propensity for Ventricular Fibrillation to occur.

D. PRECAUTIONS
1. Not recommended for conscious patients with coronary disease - will provoke angina
   - Increases peripheral resistance

E. CONTRAINDICATIONS
1. None in the PNB

F. DOSAGE
1. 40 U IV bolus
2. Can be given ET but there is insufficient evidence to recommend a specific dose

G. ADMINISTRATION
1. Single, one time dose
2. May replace either the first or second dose of Epinephrine in the above rhythms
2. 10-20 minute half life

H. MISCELLANEOUS
1. AHA 2005 “Vasopressin effects have not been shown to differ from those of Epinephrine in cardiac arrest” Class Indeterminate
G: Vasopressin