Aliases

"Triple A" ; AAA; Dissection; Thoracic Dissection

Patient Care Goals

- Rapid identification of possible dissection based on clinical history and/or radiography;
- Establish estimated time of onset;
- Notify destination hospital if suspected;
- Monitor vital signs and cardiac rhythm;
- Treat pharmacologically once proper diagnosis confirmed;
- Transport to appropriate facility;
- Consider time sensitive transport Air vs Ground to definitive care

Patient Presentation

Inclusion Criteria

A. Some patient's will present with chest pain that may appear in a variety of symptoms which may be typical but not limited to: midline subscapular pain; left-sided abdominal pain.
B. History of Marfan Syndrome
C. Previously diagnosed aneurysm from history provided

Exclusion Criteria

None

Patient Management

Assessment, Treatment, and Interventions

1. Evaluate for signs and symptoms that include chest pain.
2. Complete a 12-lead EKG. **Note that diffuse ST-segment elevation may be noted with a thoracic dissection mirroring acute pericarditis. Use caution in Heparin administration.**
3. Assess for current anti-platelet therapy and provide information to receiving facility.
4. Assess upper and lower extremity quality of pulses bilaterally.
5. Assess blood pressures on both upper extremities to identify significant differences.
6. Establish (2) large bore IV's and provide fluid resuscitation as needed for hypotension.
7. Pain management should include narcotic analgesia via MedEvac - Medication Dosing Guidelines. ***Use of NSAID's are contraindicated due to risk of increased bleeding**.*
8. Consider Tranexamic Acid (TXA) per MedEvac - Medication Dosing Guidelines
9. Consider blood product administration per MedEvac: Blood Products MedEvac Protocol - Administration of - WI if applicable (IFT vs 911)
10. Permissive hypotension guidelines/medications are as follows: Systolic blood pressure goal: 100 to 120 mmHg with target heart rate of 60-70 bpm. For unstable patients, titratable drips are indicated over bolus therapy.
    A. Administer Labetalol [PARA] 20 mg IV/IO initially, followed by 20 to 80 mg IV every (10) minutes to a total dose of 300 mg. Maximum single dose 160mg, max daily dose 300mg.
        a. Alternative to bolus: 0.4-1 mg/kg/hr IV/IO up to 3 mg/kg/hr.
        b. *Labetalol DOES NOT cause reflex tachycardia.*
    B. For additional blood pressure control: Nicardipine [PARA]: 5mg/hr, increase by 2.5mg/hr q 15 min until target BP; max 15mg/hr
    C. Additional Agents to Consider:
        a. Esmolol [PARA/Inter-Facility] bolus 80mg IV/IO over 30 seconds, then infuse 0.15 – 0.3 mg/kg/min IV/IO.
            i. Alternate for heart rate and blood pressure control.
        b. Nitroglycerin [PARA]: 5mcg/min IV, increase by 5-10 mcg/min q 5 min
            i. Alternate for blood pressure control

c. Nitroprusside [PARA/Inter-Facility]: Drip at 0.25 mcg/kg/min IV/IO and titrate up 0.5 to 1 mcg/kg/min IV/IO every 3 to 5 minutes to effect (not to exceed 10mcg/kg/min)
    i. Alternate for blood pressure control
    ii. Nitroprusside CAN cause a reflex tachycardia*

11. Consider vasopressor therapy as additional adjunct if no available/lack of effect from blood products and/or fluid resuscitation. Pay close attention to selected vasopressor to not increase chronotropic (heart rate) effects.
12. Repeat vital signs per protocol to mirror stability vs instability of patient.
13. Pre-Hospital Transport: Transport to hospital with cardiothoracic and/or vascular surgery is strongly preferred

Patient Safety Considerations

- Observe for clinical deterioration; dysrhythmias; chest pain; SOB; decrease in capillary refill; decrease in extremity distal pulses; worsening of vital signs.

- Rapid transport to hospital with possible air transport consideration. Time to definitive care is paramount to decreasing mortality in dissection patients.