Management of Acute Type B Aortic Dissections Guideline

Early medical management:
Aggressive BP control, analgesia and anti-emetics

Haemodynamic targets (initial)

- Systolic BP 100-120 mmHg
- MAP <80 mmHg
- Targets should be changed ONLY after consultation with Vascular team

If patient develops leg weakness, the Vascular surgeon and Vascular anaesthetist must be contacted immediately. ***Potential*** interventions for spinal cord ischaemia

- Increasing target BP to avoid potential spinal cord infarction
- Emergency CSF drain
- Repeat CT or MRI imaging

Analgesia

- **Morphine** (1-10mg) IV titrated to effect

Then

- **Morphine PCA** 1mg bolus 5 min lockout

*If the patient has **renal impairment,** morphine can be replaced with **fentanyl** 10 microgram bolus 5 min lockout*

- Regular **Paracetamol** (unless contra-indications)

Anti-emetics

- **Ondansetron** 4mg IV every 8 hours
- Supplemental cyclizine 50mg IV every 8 hours and metoclopramide 10mg IV every 8 hours may be used

BP control

Intravenous therapy

1. **Labetalol** (first choice)
    a. Administer IV bolus injections for initial control of blood pressure (10mg slow IV bolus injections at 2 minute intervals to a maximum of 200mg per course of boluses).
    b. AND ALSO start an IV infusion to maintain blood pressure control.
        i. Concentration 5mg/ml for CVC use OR 1mg/ml for PVC use
        ii. Dose – Start at 15mg/hr and titrate to clinical effect, but often 10-60mg/hour.
2. **Nicardipine** (second line in addition to labetalol, or first line if contra-indications to beta-blocker)
    a. IV infusion *(change IV infusion site every 12h if peripherally administered)*
        i. Concentration 25mg made up to 250ml (5% glucose) = 100micrograms/ml
        ii. Dose – titrated to clinical effect
        iii. Start at 50ml/hour (5mg/hour). The rate may be increased every 10 mins by 25ml/hour to a maximum of 150ml/hour (15mg/hour).
        iv. Once target BP is achieved reduce dose gradually, usual maintenance dose 2-4mg/hour

v.

3. **Hydralazine** (third line)
    a. IV bolus – 5mg slow IV injection bolus at 20 minute intervals to a usual maximum of 20mg
    b. IV infusion
        i. Concentration 60mg made up to 60ml (0.9% sodium chloride) = 1mg/ml
        ii. Dose – titrated to clinical effect
        iii. Start at 3ml/hr (50micrograms/min). The rate may be increased every 10 mins by 3ml/hour to a maximum of 18ml/hour (300micrograms/min).

Oral therapy – Start as soon as possible (Day 1 unless contra-indicated)
Titrate first line drug to maximum tolerated dose before introducing next line drugs

1. **Bisoprolol** (first choice)
    a. 2.5-20mg once daily
2. **Amlodipine** (second line in addition to bisoprolol, or first line if contra-indications to beta-blocker)
    a. 5-10mg once daily
3. **Doxazosin** (third line in addition to bisoprolol and amlodipine)
    a. 1-16mg once daily
4. **Hydralazine** (fourth line in addition to bisoprolol, amlodipine and doxazosin)
    a. 10-25mg four times daily

NB ACE Inhibitors and diuretics should be avoided initially while the kidneys are at risk.

References

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