MECHANICAL VENTILATION WEANING AND EXTUBATION PROCEDURES IN POSTCARDIOTOMY PATIENTS

CANDIDATES FOR EARLY EXTUBATION

- CABG with preserved LVEF
- One heart valve replacement with preserved LVEF
- No intraoperative complications
- Further indications will undergo physician’s criteria

ICU RECEPTION

MONITORIZATION AND STABILIZATION

STANDARD MECHANICAL VENTILATION

HEMODYNAMIC OPTIMIZATION

SURGICAL DRENAGE CONTROL

NURSE PROTOCOL

ACV (6-8 ml/kg) Or PSV
PaO2 >60 mmHg
PEEP 6

PaO2/FiO2 <200 mmHg

1-2 HOURS

ALVEOLAR RECRUITMENT MANEUVERS

- GCS > 13. Consciousness and muscle strength.
- PaO2/FiO2 > 200mmHg FiO2 < 0,4 PEEP< 6. pH> 7,32.
- Optimal hemodynamics (NA < 0,2 and DBT< 5 mcg/kg/min).
- Few bleeding (< 150ml 1h, < 100ml 2h, < 70ml 3h)
- Blood workup, arterial blood gases, chest X-Ray, EKO within normal range.
- Adequate systolic function in ECHO.
- Adequate pain control.

REEVALUATE INCLUSION CRITERIA FOR EXTUBATION

- GCS > 13. Consciousness and muscle strength. Coughing capacity.
- PaO2/FiO2 > 200mmHg OR SpO2> 95% w/ FiO2 < 0,5 (SpO2 > 92% if COPD).
- pH 7,35 - 7,45. RR < 25 bpm TV > 5ml/kg. MV < 10 lpm.
- HR < 120 bpm OR <20% of previous HR.
- Hemodynamic stability SBP > 90mmHg OR < 180mmHg.
- Bleeding < 100 ml/h.

NO

CORRECT ALTERATIONS

ACV (6-8 ml/kg) OR PSV

1 HOUR

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YES

“T” TUBE 30 MIN
w/>10% PREVIOUS FiO2

OR

PSV8-10 w/PEEP 5-6
30 MIN

SPONTANEOUS BREATHING TRIAL

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NO

YES

EXTUBATION

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ACV: Assist-Control Ventilation; CABG: Coronary Artery Bypass Grafting; COPD: Chronic obstructive Pulmonary Disease; DBT: Dobutamine; ECO: Echocardiogram; EKG: Electrocardiogram; GCS: Glasgow Coma Score; HR: Heart Rate; ICU: Intensive Care Unit; LVEF: Left Ventricular Ejection Fraction; MV: Minute Volume; NA: Noradrenaline; RR: Respiratory Rate; PEEP: Positive End-Expiratory Pressure; PSV: Pressure Support Ventilation; X-Ray: Radiography; SBP: Systolic Blood Pressure; TV: Tidal Volume.