Figure 5 Management of acute heart failure during pregnancy: rapid interdisciplinary workup and treatment of mother and foetus

AHF during pregnancy
- Induction of lung maturation >23 + 5 weeks initiated without delaying patient transfer to tertiary center
- Meeting of the task force for AHF in pregnancy (goal: 155 minutes)
  - members: cardiologist, obstetrician, neonatologist, anesthesiologist, cardiac surgeon, operating room coordinator

Status and prognosis of the foetus
- Foetus non viable
  - Delivery
  - Maximal advanced AHF therapy
  - Supportive psychotherapy
- Foetus viable
  - Parents’ wish
  - Maternal and fetal status
  - Delivery
  - Monitoring mother/foetus
  - tailored HF Therapy
  - Consider advanced AHF therapy

Figure 6 Management of acute heart failure during/after pregnancy

Assess heart failure severity
- SBP <90 mmHg; HR >110/min or <45/min
- RR <25/min; SpO2 <90%
- Lactate >20 mmol/L; Lactate >40 mmol/L
- Altered mental state; cold skin; oliguria

Initial evaluation
- Start IV fluids; vasopressors if SBP >110 mmHg
- Optimize oxygenation
  - Consider NIV; invasive ventilation if SpO2 <95%
- Add inotropes and/or vasopressors
  - Consider levosimendan 0.1 mcg/kg/min during 24 h
- Urgent delivery (caesarean section)
- Consider bromocriptine in patients with PPCM

Severe AHF/Cardiogenic Shock
- Consider mechanical circulatory support (MCS) plan delivery strategy to have access to MCS if necessary

Recovery?
- Transplantation
- Weaning

Confirm diagnosis
- ECG
- Blood tests incl. natriuretic peptides
- Echocardiography; consider lung ultrasound
- Consider additional tests to exclude differential diagnosis

Stabilized AHF
- Antepartum
  - HF therapy
  - ACE-I (or ARB)
  - Beta-blocker
  - MR antagonist
  - Diuretics
  - Consider ivabradine

- Postpartum
  - HF therapy
  - ACE-I (or ARB)
  - Beta-blocker
  - MR antagonist
  - Diuretics
  - Consider ivabradine

Consider delivery (vaginal delivery with PDA)

Consider WCD therapy
- if LVEF <35%

Continue HF therapy

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