Differential Diagnosis of CHD

In Slide Show mode, to advance slides, press spacebar
Nine Lesions Which Produce 75% of All Severe Congenital Heart Lesions In the Neonate

- **Decreased flow**
  1. Tetralogy of Fallot
  2. Tricuspid Atresia
  3. Severe Pulmonic Stenosis
  4. Ebstein’s

- **Increased Flow**
  5. Transposition
  6. VSD
Nine Lesions Which Produce 75% of All Severe Congenital Heart Lesions In the Neonate

- Pulmonary venous hypertension
  7. Hypoplastic left heart
  8. Coarctation of the aorta
  9. TAPVR with infradiaphragmatic obstruction

- What’s left
  - Left-to-right shunts
    - ASD
    - PDA
  - Truncus arteriosus
<table>
<thead>
<tr>
<th>Cyanosis With Decreased Vascularity</th>
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<tbody>
<tr>
<td>• Tetralogy</td>
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<td>• Truncus-type IV</td>
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<tr>
<td>• Tricuspid atresia*</td>
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<td>• Transposition*</td>
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<td>• Ebstein's</td>
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* Also appears on DDx of Cyanosis with ↑ Vascularity
Ebstein’s Anomaly
Cyanotic
Cyanosis With Increased Vascularity

- Truncus types I, II, III
- TAPVR
- Tricuspid atresia*
- Transposition*
- Single ventricle

* Also appears on DDx of Cyanosis with ↓ Vascularity
Total anomalous venous return (TAPVR)
Cardiomegaly with Normal Vasculature

- Viral myocarditis
- Endocardial fibroelastosis
- Aberrant left coronary artery
- Cystic medial necrosis
- Diabetic mother
Endocardial Cushion Defect

Acyanotic
CHF In Newborn
Impede Return of Flow to Left Heart

- Infantile coarctation
- Congenital aortic stenosis
- Hypoplastic left heart syndrome
- Congenital mitral stenosis
- Cor triatriatum
- Obstruction to venous return from lungs
  - TAPVR from below diaphragm
CHF In Chronologic Sequence
CHF In Newborn
Impede Return of Flow to Left Heart

- Infantile coarctation
- Congenital aortic stenosis
- Hypoplastic Left Heart Syndrome
- Congenital mitral stenosis
- Cor triatriatum
- Obstruction to venous return from lungs
  - TAPVR from below diaphragm
CHF In 2nd-3rd Week

- Coarctation of the aorta
- Interruption of the aortic arch
CHF-later

- Coarctation of the aorta – adult type
Unknowns
Increased flow
1° Pulmonary Hypertension
Mitral Stenosis
Atrial Septal Defect
Pericardial Effusion
Aortic Stenosis
Mitral Stenosis With Severe PAH
Tetralogy of Fallot

Cyanotic
Tetralogy of Fallot
Components of

- Ventricular septal defect
- Pulmonic stenosis
- Overriding aorta
- Right ventricular hypertrophy
ASD

Acyanotic
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CHF
# Pulmonary Interstitial Edema

## X-ray Findings

- **Thickening of the interlobular septa**
  - Kerley B lines
- **Peribronchial cuffing**
  - Wall is normally hairline thin
- **Thickening of the fissures**
  - Fluid in the subpleural space in continuity with interlobular septa
- **Pleural effusions**
Ventricular Septal Defect (VSD)
Atrial Septal Defect (ostium primum type) with PAH
Pulmonic Stenosis
Most Commons

- Most common cause of CHF in newborn
  - Hypoplastic left heart syndrome
- Most common cause of CHF > 2 weeks
  - Coarctation of the aorta (infantile form)
- Most common cyanotic heart disease
  - Tetralogy of Fallot
- Most common dz associated c R arch
  - Tetralogy of Fallot
Most Commons

- **Most common L ➔ R shunt**
  - Ventricular Septal Defect

- **Most common L ➔ R shunt dx’d in adult**
  - Atrial Septal Defect

- **Dz most commonly associated c R arch**
  - Truncus arteriosus
The End