Group B Streptococcus Endocarditis Complicated by Septic Emboli

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Case

• The patient is a 61 year-old woman who presented to her PCP with right-sided headache, dizziness, nausea, and back pain in October, 2014.

• She was diagnosed with pyelonephritis with urine culture growing Streptococcus agalactiae & CT scan showing wedge-shaped lesion on the left kidney.

• Initially treated with ciprofloxacin but symptoms worsened and was transitioned to cefdinir after 3 days.

• Found to have a new heart murmur 5 days after the first visit and was admitted to the hospital.

• Of note, she had colposcopy in May, 2014

Hospital Course

• Admitted to inpatient cardiology. TEE confirmed a mobile valvular vegetation on the aortic valve.

• ID consult team transitioned antibiotics to IV ceftriaxone every 12 hours for 4 weeks.

• CT of head showed stable multiple scattered hyperdensities consistent with hemorrhagic infarcts in the right frontal region.

• Cardiothoracic surgery was consulted for aortic valve repair and surgery date was planned no sooner than after 4 weeks of IV antibiotic therapy to reduce the risk of reseeding the new valve.

Complications

• HD #10, her headache continued to worsen with new fevers and repeat imaging with CT angiography now showed a mycotic aneurysm. Neuro-interventionalists performed coiling of the aneurysm.

• HD #11, she spiked a fever of 39.6 °C. Antibiotics were transitioned to vancomycin and aztreonam due to suspicion for beta lactam-induced fever.

• HD #15, she developed tachypnea and shortness of breath consistent with progressive heart failure from aortic regurgitation and insufficiency. With worsening heart failure and concern for recurrent embolism, aortic valve repair was emergently performed prior to the completion of 4-week antibiotic therapy.

• HD #16, AVR with Sorin SOLO Smart 25mm Pericardial Valve was placed.

Discussion

• Given multi-systemic progression of disease even with antibiotic treatment, it is likely that AV endocarditis was the source for septic emboli to the brain and the kidney.

• Regarding the timing of the aortic valve surgery, one must weigh the increasing risk of emboli against the risk of reseeding the artificial valve with shorter antibiotic therapy.

Duke’s Criteria for IE

<table>
<thead>
<tr>
<th>Diagnostic: 2 major, 1 major + 3 minor, 5 minor</th>
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<tr>
<td><strong>Major Criteria</strong></td>
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<td>• Positive blood culture for typical organisms for IE from 2 separate blood cultures</td>
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<td>• Echocardiogram with oscillating intracardiac mass on valve or supporting structures</td>
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Table 1