Kawasaki Disease - Gall Bladder Involvement

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History
3 month old with respiratory failure, fever and edema. During the hospitalization she developed rash on the palms of the hands and soles of the feet.

Diagnosis
Kawasaki Disease G-Ball Bladder Involvement

Additional Clinical
Coronary artery aneurysms also noted on coronary angiography.

Discussion
Kawasaki disease (acute infantile febrile mucocutaneous lymph node syndrome) is an acute febrile illness of unknown etiology resulting in immune activation and vasculitis. Immunologic characteristics include elevated white blood cell count with lymphocytosis, increased CD4+ and decreased CD8+ T-cells, macrophage activation, B-cell activation and increased cytokines. Vascularitis predominantly involves small to medium sized arteries and to a lesser extent veins. Lymphocyte and monocyte infiltration of the adventitia leads to intimal necrosis and medial injury and subsequently aneurysm formation.

Diagnosis of Kawasaki disease can be made in patients with fever for five days and the presence of 4 of 5 of the following: 1) conjunctivitis, 2) mucositis, 3) rash, 4) swelling, erythema and desquamation of the hands and feet, 5) cervical adenitis. Treatment is primarily supportive in the acute phase. High-dose gamma globulin and aspirin (for its anti-inflammatory and anti-thrombotic effects) may also be employed.

Hepatic dysfunction is common probably related to periportal inflammation and vasculitis. Periportal inflammation extending to the cystic duct may lead to hydrops. Direct gall bladder inflammation can manifest as mural thickening. Vasculitis may also lead to splenic infarcts and pancreatitis. Bowel edema and inflammation may predispose to intussusception.

Findings
US-Marked mural thickening of gall bladder.

Reference
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