Splenic Abscess Caused by Actinomycosis

Fadi I Jabr¹ and Nedaa Skeik²

Key words: actinomycosis, spleen abscess

(DOI: 10.2169/internalmedicine.46.0558)

Picture 1. CT of abdomen showing a large spleen abscess.

Picture 2. Low power magnification of spleen section showed multiple abscesses with sulphur granules.

Picture 3. Organisms within the granules are positive with a GMS silver stain and gram stain.

Picture 4. High power magnification showing filamentous bacterial organisms consistent with actinomyces species.

A 72-year-old woman with diabetes mellitus type 2 presented with history of generalized weakness and episodes of chills, fever, and left upper quadrant abdominal pain for the past 1.5 months. On physical examination, she had tenderness in the left upper quadrant area. White blood cells and erythrocyte sedimentation rate were elevated. A computed...
tomography of the abdomen showed multiple splenic abscesses (Picture 1). She received broad spectrum antibiotics, a pneumonia vaccine and had splenectomy. Spleen sections showed multiple abscesses with sulphur granules (Picture 2). The organisms within the granules were positive with a GMS silver stain and gram positive with a gram stain (Picture 3). High magnification showed filamentous bacterial organisms consistent with actinomyces species (Picture 4). Her treatment was changed to penicillin for 6 months with good response.

Spleenic abscesses are relatively uncommon with an incidence of 0.2-0.7% in an autopsy series (1). The incidence might be more due to increasing use of illicit intravenous drugs, increasing number of human immunodeficiency virus patients, chemotherapy, malignancy, and improved detection (1). Bacteremia from endocarditis is the leading cause (1). Trauma to the spleen accounts for 7-30% of the cases (1). Other conditions associated with splenic abscess include diabetes mellitus, hemoglobinopathy and splenic abnormalities (1). The major causative agents are streptococci, salmonelae, staphylococci, and E. coli (1). With the increased number of immunocompromised patients, fungi and mycobacteria are becoming more common. Actinomyces, a slow growing, gram positive, non acid fast, strictly anaerobic bacterium is very rarely reported as a cause of spleen abscess (2-7). Similar to other splenic abscesses, splenectomy is the gold standard of treatment of actinomycotic spleen abscess. Diagnostic aspiration of the abscess might be attempted but early splenectomy is recommended once the diagnosis is made to avoid splenic rupture (7). Penicillin is the drug of choice and it should be maintained for a six-month period to prevent relapse or recurrence of actinomycosis.

References


© 2007 The Japanese Society of Internal Medicine
http://www.naika.or.jp/imindex.html