



## Hemepath Case 35: 38-Year-Old Female

### HISTORY

A 38-year-old female complains of a persistent dry cough of 3-month duration with intermittent dyspnea. Four days ago she started noticing pain in her right lower leg. She has felt increasingly feverish and tired over the past few weeks. Past medical history is unremarkable.

On physical examination, the patient is noted to have a low-grade fever. The right leg is slightly tender to palpation and multiple red, painful nodules are present on the anterior aspects of both legs. Auscultation of the chest reveals coarse breath sounds bilaterally.

Imaging reveals bilateral hilar lymphadenopathy, diffuse reticular infiltrates, and multiple nodules in both lung fields. Several nodular lesions are also observed on the x-ray of the right tibia. Because of the CBC results, a bone marrow biopsy is performed.

### CBC

Hgb (g/L)	Low
MCV	N
WBC	Low
Plt	Borderline low

### DESCRIPTION OF SLIDE

#### Bone Marrow Biopsy

The bone marrow biopsy shows normal cellularity and tri-lineage hematopoiesis. There are several non-caseating granulomas (see circles) throughout the marrow space. There is no morphological evidence of malignancy.

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### MORPHOLOGICAL DIAGNOSIS

Sarcoidosis

### DISCUSSION

Sarcoidosis is a granulomatous disease of unknown (but presumably autoimmune) etiology characterized by non-caseating granulomas on tissue biopsy. It can affect any organ system and thus can present with a wide spectrum of symptoms, but it most frequently involves the lungs (with bilateral hilar lymphadenopathy and pulmonary infiltration), eyes, and skin (e.g. erythema nodosum). It is uncommon for patients to have bone marrow involvement; when this does occur, patients may exhibit signs of cytopenia.

In cases where granulomas are found in the marrow (or in any tissue specimen), further workup is necessary to exclude mycobacterial and fungal infections. This usually requires special stains. Sarcoidosis is a diagnosis of exclusion.