Bands

Interpretive Summary

**Description:** Bands are immature segmented neutrophils that are typically released early from the bone marrow in response to inflammation.

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**Decreased Bands**

**Common Causes**

- Normal (reference interval includes zero)

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**Increased Bands**

**Common Causes**

- Inflammatory response (local or systemic; acute or chronic)
  - Infections: bacterial
  - Immune-mediated disease
  - Tissue necrosis
  - Neoplasia

**Uncommon Causes**

- Inflammatory response (local or systemic; chronic or acute)
  - Infections: parasitic, rickettsial, viral, fungal, protozoal
  - Corticosteroid-induced

**Related Findings**

- Inflammatory response
  - Infectious
    - Increased neutrophils, toxic neutrophils and/or band neutrophils
    - Positive culture of urine, CSF, joint fluid, blood, tissue, body cavity effusion, other
    - Evidence of infection on abdominal or thoracic imaging
    - Positive serology or PCR results
    - Septic effusion on fluid analysis and cytology
    - Suppurative inflammation +/- bacterial organisms on cytology or histopathology
  - Immune-mediated disease
    - Increased neutrophils and monocytes
    - Nonregenerative or regenerative anemia, thrombocytopenia
    - Inflammation found on fluid analysis and cytology of joint fluid, CSF, or body cavity effusion
    - Positive Coombs, ANA titer, or Rheumatoid Factor
  - Tissue necrosis
    - Increased neutrophils and monocytes, toxic neutrophils and/or band neutrophils
    - Necrotic mass on abdominal or thoracic radiographs, or abdominal ultrasound
    - Evidence of necrosis on cytology or histopathology of a mass or organ
  - Neoplasia
    - Enlarged lymph nodes or mass on abdominal radiographs, abdominal ultrasound, or thoracic radiographs
    - Neoplastic cells on cytology or histopathology
Additional Information

**Physiology**

- Bands are an immature stage of development of the neutrophil.
- Bands have a curved nucleus of uniform thickness in which the sides are approximately parallel to one another throughout the entire length of the nucleus.
- The ability of neutrophils to respond to stimuli and migrate increases with maturation, thus bands may be slightly less responsive than segmented forms.

**Diagnostic Methodology**

- The absolute band count is calculated by multiplying the band percentage by the total white blood cell count.

**References**


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