The Diagnosis of Spondyloarthritis using HLA-B27

Choosing Wisely Canada Recommendation

Don't order an HLA-B27 unless Spondyloarthritis (SpA) is suspected based on specific signs or symptoms.

Practice Points

1. Ankylosing Spondylitis (SpA) is a progressive inflammatory rheumatologic disease, which can be ameliorated by medical interventions.

2. In patients with ≥3 months of back pain and age of onset <45 years SpA is a potential diagnosis.

3. This diagnosis may be made by finding: sacroiliitis on MRI or HLA-B27 with at least two features of SpA.

4. An inexpensive HLA-B27 test has been developed locally (tagSNP).

5. HLA-B27 test utilization over 33 months at Eastern Health is presented.

Use of HLA-B27 by Doctor

Over 33 months, from Jan 1 2015-Oct 1 2017, 1108 tests were ordered by 280 doctors.

This indicates that the majority of the tests were ordered by only a small number of doctors.

ASAS Classification Criteria for Axial Spondyloarthritis (spA)

In patients with >3 months back pain and age at onset <45 years.

- Sacroiliitis on imaging* plus ≥1 SpA feature OR HLA-B27 plus ≥2 SpA features

SpA features:

- inflammatory back pain
- arthritis
- enthesitis (heel)
- uveitis
- dactylitis
- psoriasis
- Crohn’s colitis
- good response to NSAIDs
- family history for SpA
- HLA-B27
- elevated CRP

* Sacroiliitis on imaging
- active (acute) inflammation on MRI highly suggestive of sacroiliitis associated with SpA
- definite radiographic sacroiliitis according to the modified New York criteria

n=649 patients with back pain

Overall
Sensitivity; 82.9%, Specificity; 84.4%

Imaging Arm Alone
Sensitivity; 66.2%, Specificity; 97.3%

Clinical Arm Alone
Sensitivity; 56.6%, Specificity; 83.3%

Proportion of Tests by Age

0 to 44 years old
51% of tests were ordered in patients ≥45 years. However it is unknown the age of onset of symptoms.

49%

31%

20%

60 years old and over

Conclusions

1. Order HLA-B27 (tagSNP) if SpA is suspected based on the presence of low back pain for ≥3 months with onset <45 years, and specific signs or symptoms consistent with SpA.