

Introduction/Rationale: Flow cytometry of BAL fluid lymphocytes may be a useful indicator in evaluating sarcoidosis.

Objective: To assess flow characteristics in BAL lymphocytes in patients with sarcoidosis and disease controls

Design: A convenience sample of all BAL flow studies from our institution 1998 - 2005, along with a chart review for clinical characteristics.

Methods: A Beckman Coulter FC-500 five-color gated spectrometer/analyzer is used for lymphocytic antigen immunophenotyping.

Results: All Cells are CD45 positive correlating with both types of lymphocytes. There were less than 2% CD19 cells (B-cell Marker), implying that all cells were T cell/lymphocytes. [table1]

[table1]

| | Sarcoid Patients(n=78) | Disease controls(n=52) | P Value |
|---------------------------|-------------------------------|-------------------------------|----------------|
| Total Lymphocytes% | 14.35+/-16.98 | 6.76+/-10.65 | <0.0025 |
| CD4% | 67.78+/-20.22 | 43.51+/-22.54 | <0.0005 |
| CD8% | 22.35+/-15.08 | 36.73+/-20.07 | <0.0005 |
| CD4/CD8 Ratio | 5.3+/-5.13 | 1.77+/-1.59 | <0.0005 |
| HLA DR | 23.93+/-15.98 | 20.63+/-13.73 | <0.15 |
| CD3% | 91.46+/-13.41 | 83.78+/-17.06 | <0.005 |
| CD19% | 0.88+/-2.33 | 1.99+/-5.82 | <0.10 |

Conclusion: 1. Sarcoid BAL is characterized by T-cell lymphocytosis with an elevated ratio of CD4/CD8.

2. Correlation with other clinical variables will be performed.