Utility of Flow Cytometric Immunophenotyping of Lymphoid cells in Effusions and Cerebrospinal Fluid cytology

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Introduction
- Effusions and cerebrospinal fluid (CSF) that are rich in lymphoid cells are fairly common in cytopathology practice.
- They may be suspicious for lymphoma clinically or on cytology.
- Flow cytometric immunophenotyping (FCI) is a useful adjunct technique in this situation
- It is rapid and sensitive for analysing lymphoid populations

Aim
To evaluate the utility of Flow cytometric immunophenotyping [FCI] in routine cytopathology practice.

Method
Study Period: 6 years, 2013-18
Design: Retrospective audit
Pleural / peritoneal fluid / CSF for whom FCI performed included

Results

6y, male, known case of nodal DLBCL presented with ascites while on therapy
Lymphoma cells are B-cells positive for CD19, CD20, CD10, with Lambda light chain restriction

12 y old with chronic meningitis on Anti-tuberculosis therapy with poor response lymphoma was suspected clinically
CSF favoured T-cell rich lymphocytosis
Follow-up: pineal biopsy - Granulomatous inflammation

Conclusion
Flow Cytometric immunophenotyping is extremely useful for a rapid and accurate diagnosis of lymphoma including its typing in Effusions and in CSF

References