Idiopathic CD4+ T lymphocytopenia: A case report

Umamaheshwari et al have reported an interesting case of an individual suspected with Idiopathic CD4+ T Lymphopenia (ICL). The case provides a comprehensive view of primary infections possibility leading to a significant decrease in CD4+ count. While Umamaheshwari et al. have stated that their patient was seronegative for human immunodeficiency virus (HIV), they have not provided detailed clinical history of the patient related to HIV risk-factors. In diagnosing HIV patients, HIV-risk behaviors [e.g., multiple sex partners, unprotected sexual intercourse, and intravenous (IV) drug use] need to be put on the priority before shifting to the confirmatory tests such as rapid diagnostic test (RDT), enzyme-linked immunosorbent assay (ELISA), and polymerase chain reaction (PCR). Furthermore, the type of HIV test that was used for the patient and whether the test was repeated is unclear. RDT has lower sensitivity and specificity compared to ELISA and PCR. RDT also depends on the natural history of HIV infection related to the time whether the antibody has been established or not. Although most of HIV testing have a relatively high rate of sensitivity and specificity, several factors may contribute to a false negative result; suboptimal testing strategies, poor management of supplies, and user errors including difficulty interpreting weak reactive lines.

Lymphocytes are distributed on every lymph nodes including afferent lymph from gastrointestinal tissues. The loss of lymphocyte-rich lymph and disrupted lymph node architecture as the results from surgical procedures can result in lymphopenia. Therefore, patient history of toxic megacolon as a complication of ulcerative colitis needs to be elaborated, whether the patient was given immunosuppressive agent or only underwent surgery. Although it is more common in children, it is possible that the patient was having a transient lymphopenia in response to type I Interferons (IFNs) from lymphocyte activation and binding to endothelium as the previous inflammation of ulcerative colitis had occurred. Moreover, lymphocyte apoptosis and lymphoid depletion may result as consequences of high level of type I IFNs. Hence, assessing patient IFNs may add another perspective on disease progression of ICL and its treatment strategy.

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Conflicts of interest
There are no conflicts of interest.

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