Chronic lymphoproliferative disorder of NK-cells

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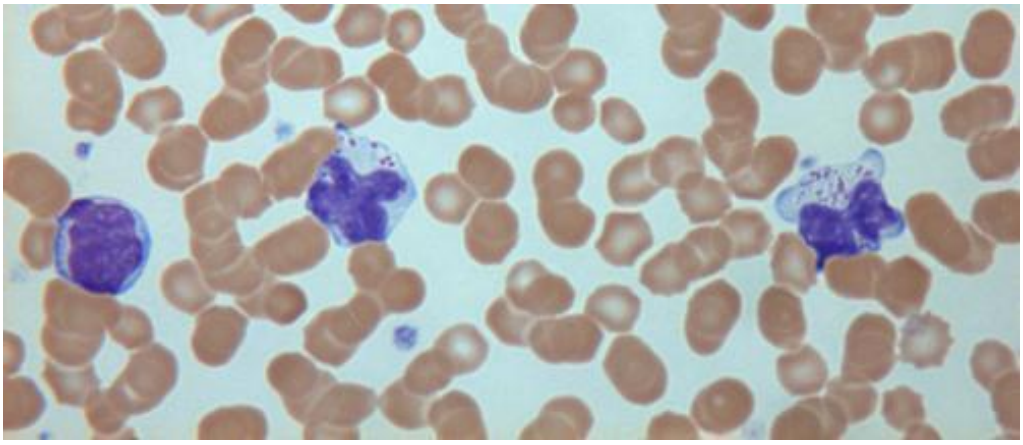

Figure 1

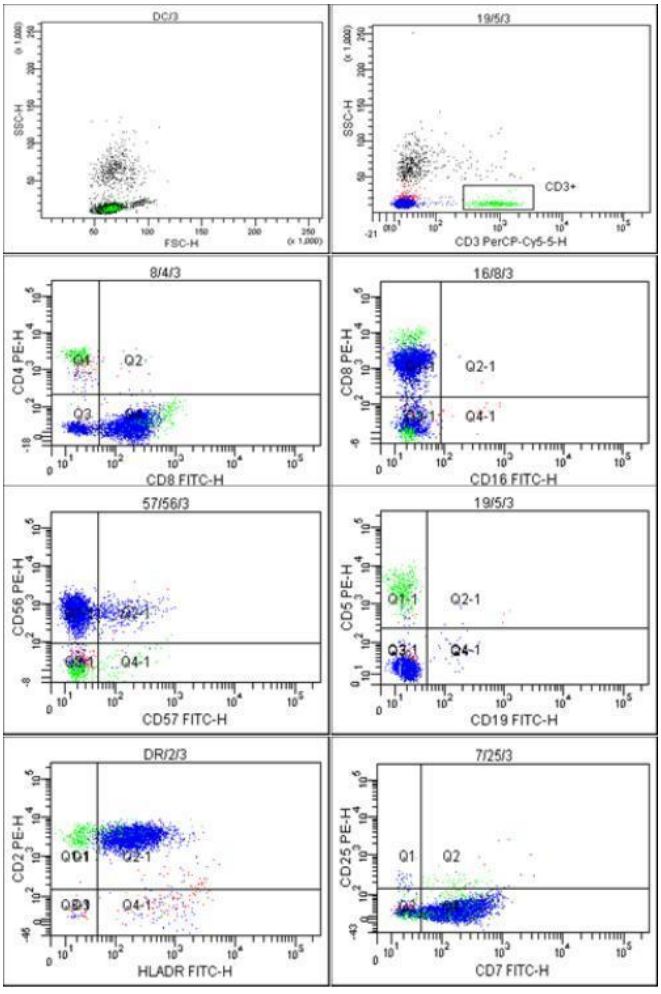

Figure 2

A 57 year old asian woman was referred with significant weight loss. FBC: Hb 156 g/l, platelet count 222 *109/l, WBC count 32.7 *109/l. 92% of leucocytes have LGL morphology with medium cell size, moderate N/C ratio, basophilic cytoplasm containing several azurophilic granules, irregularly lobulated nuclei with clumped chromatin and some of them contain cytoplasmic vacuoles. Nucleoli are not evident. Few reactive T-lymphocytes are also seen (arrow head).

Flow cytometry study confirmed that these LGL are NK-cells (blue population of cells that are positive for CD2, CD7, CD8 and CD56 and negative for sCD3, CD5, CD16 and CD57).

It is difficult to confirm whether her condition is of reactive or neoplastic nature. The WHO 2008 classification used the term chronic lymphoproliferative disorder of NK-cells “and not neoplasm” to stress this concern.

The flow cytometry plots revealed the presence of minor population of remnant normal T-lymphocytes (green population of cells that are positive for CD2, sCD3, CD5, CD7 and CD4 or CD8 and negative for CD16, CD56 and CD57). These normal lymphoid cells are used as an internal control.