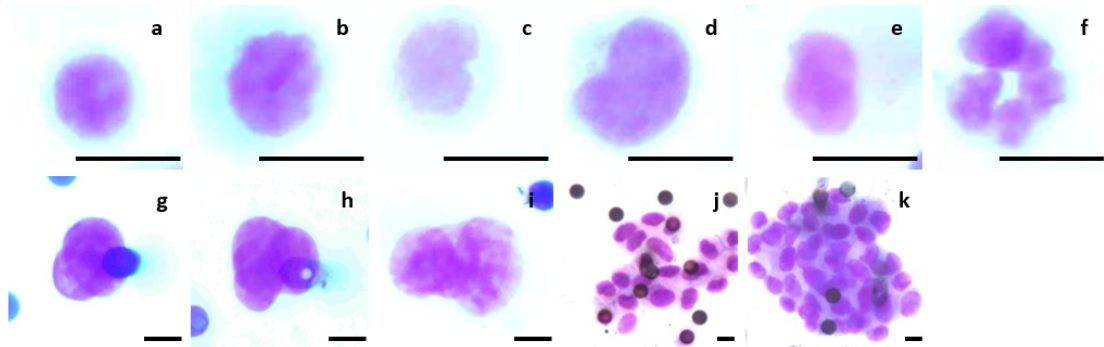
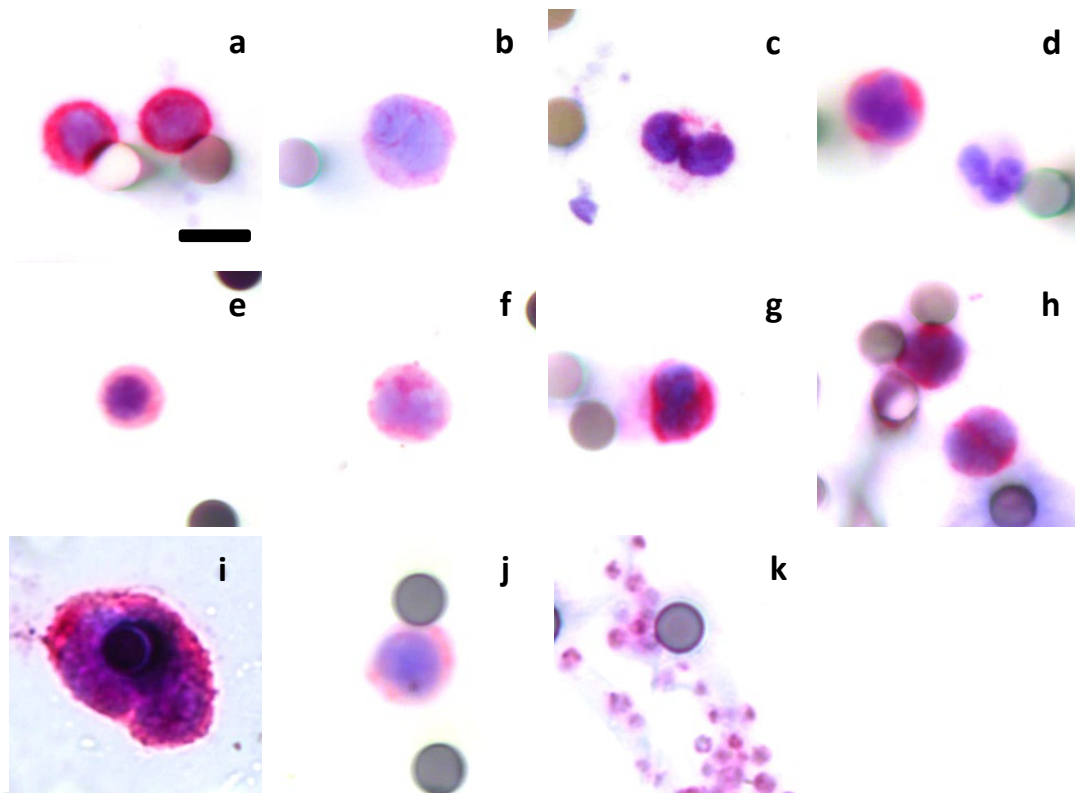


**Supplementary Table 1.** Cell loss from ISET membranes after ICC

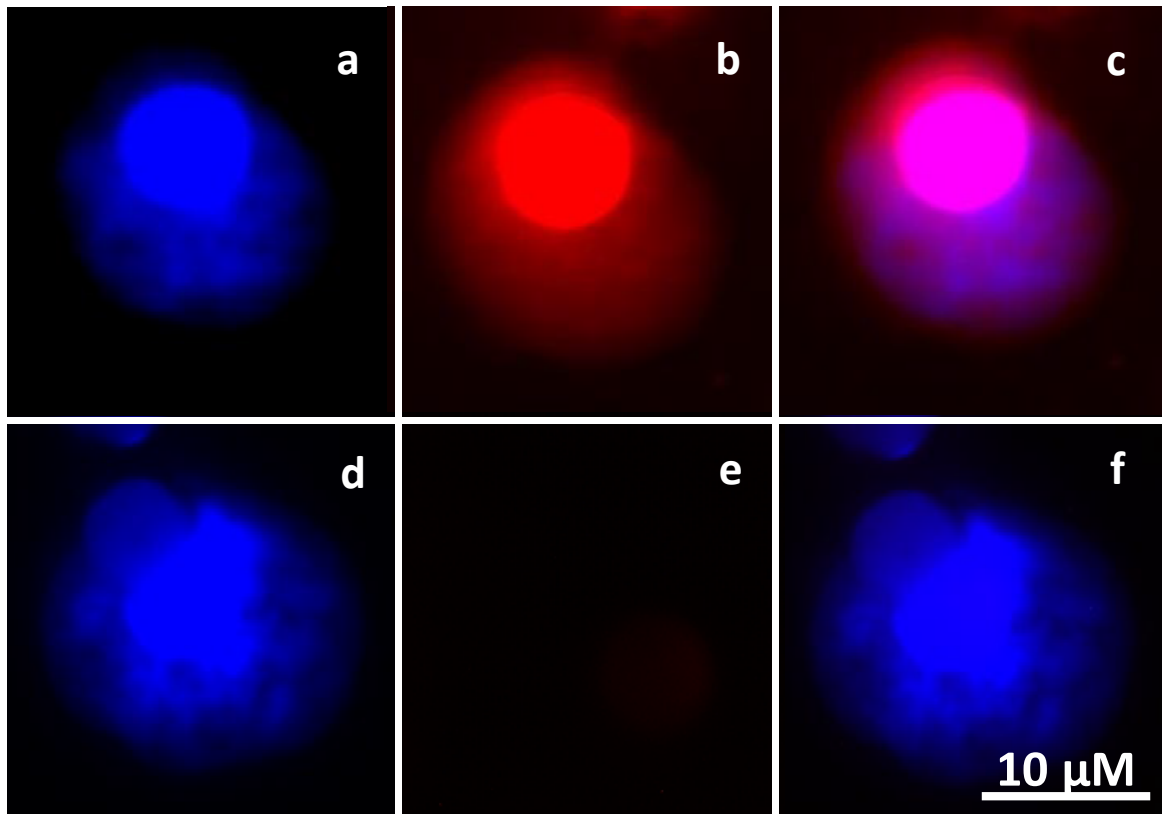
Patient No.	No. of cells before ICC	No. of cells after ICC	% of cell loss
1	97	96	1.03
2	97	95	2.06
3	88	85	3.41
4	107	106	0.93
5	85	80	5.88
6	102	87	14.70
7	95	93	2.10



**Supplementary Figure 1.** Cytomorphology of circulating cells detected by MGG staining on the ISET filter. Images are representative of MGG stained circulating cells at a final magnification of  $\times 630$ , (a) lymphocyte, (b) activated lymphocyte, (c-d) monocyte, (e) eosinophil, (f) neutrophil, (g-i) atypical cells, (j-k) clusters of atypical cells. Scale bar represents 10  $\mu\text{m}$



**Supplementary Figure 2.** ICC staining of circulating cells with CD45, CD11b, and CD31. (a-d) circulating immune cells reactive to CD45. (e-h) circulating immune cells reactive to CD11b. (i) large monocyte reactive to CD45/CD11b/CD31. (j) circulating cells reactive to CD31, (k) CD31+ platelets, All images were taken at a final magnification of  $\times 630$ . Scale bar indicates 10  $\mu\text{m}$



**Supplementary Figure 3.** Fluorescent staining of atypical cells on the ISET filter. Cells with atypical nuclear morphology (dense, large, irregular chromatic organization) were stained with Hoechst 33342 followed by eosin. Atypical nuclei morphology with (a-c) or without (d-f) eosin staining at a final magnification of X630. Hoechst 33342, blue; eosin, red. Scale bar indicates 10  $\mu\text{m}$