Abstracts

Lupus nephritis

Phagocytic macrophages in lupus nephritis are infrequent in diabetic and hypertensive kidney disease.

Fig. 3 Phagocytic macrophages (red outlines) and a small subset of LYVE1+ macrophages in lupus nephritis are infrequent in kidney biopsies from patients with diabetes and hypertension. Intrarenal myeloid cells from 155 lupus nephritis and 45 chronic kidney disease patients were integrated.

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<td>TISSUE-RESIDENT, EXTRAVASCULAR MONOCYTIC LIKE CELL IS CRITICAL FOR INFLAMMATION IN THE SYNOVIIUM PERLMAN, HARRIS</td>
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Methods

We utilized functional genomic analysis of murine and human synovium including single-cell-CITE and ATAC-seq.

Results

Here, we identify and characterize intravascular (i.v.) and extravascular (e.v.) synovial monocyte populations (Syn Ly6c- cells) which are distinct in surface marker expression and transcriptional profile from circulating monocytes, dendritic cells and tissue macrophages, and are conserved in patients with rheumatoid arthritis. e.v. Syn Ly6c- cells are independent of NR4A1 and CCR2, long-lived and embryonically derived while the i.v. Syn Ly6c- cells are dependent on NR4A1, short-lived and derived from circulating monocytes. e.v. Syn Ly6c- cells undergo increased proliferation and reverse diapedesis dependent on LFA1 in response to arthrogenic stimuli and are required for the development of inflammatory arthritis.

Conclusions

These findings uncover a new facet of mononuclear cell biology and are imperative to understanding tissue-resident myeloid cell function in the synovium.

Transcriptomics

GENE EXPRESSION PROFILING OF KEY IMMUNE/INFLAMMATORY PATHWAYS REVEALS MOLECULAR ENDOTYPES OF SLE WITH CLINICAL IMPLICATIONS

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10.1136/lupus-2022-lupus21century.109

Abstract 2002 Figure 3 Phagocytic macrophages in lupus nephritis are infrequent in diabetic and hypertensive kidney disease.