ALTERED PATTERNS OF HISTONE ACETYLLATION RANK-L IS EXPRESSED BY SALIVARY GLAND M. Mayer1, M. Cerovec1, DETECTION OF OLIGOCLONAL B-CELL POPULATIONS C. Kyrtsoni1, J. Boletis2, P. Panayiotidis1, S. Marinaki2.

OBJECTIVES: Using an easy-to-perform method such as spectratory analysis, to test the hypothesis that clonal B-cell populations are present in the renal tissue of lupus nephritis patients, induced perhaps as a result of local (auto)antigenic stimulation.

METHODS: Genomic DNA extracted from renal biopsy samples from 18 patients with active lupus nephritis and 24 control patients with other (auto)immune-mediated glomerular diseases, as well as DNA from 25 paired peripheral blood samples, was subjected to multiplex PCR for the detection of Ig-V\textsubscript{H} clonal rearrangement. PCR products were analysed by capillary electrophoresis according to the Biomed-2 standard guidelines for the definition of clonal B cell populations. Immunohistochemistry using the B-cell-specific L-26 antibody was also performed in available renal samples.

RESULTS: Electrophoregrams of PCR products derived from patients with biopsy proven active lupus nephritis revealed the presence of oligoclonal B-cell populations among polyclonal B-cells in renal tissue of 6/18 patients. No associations with clinical or histology class were evident. Oligoclonal B-cell populations were also found in renal samples derived from patients with untreated local segmental glomerulosclerosis (6 of 7), minimal change disease (1 of 3), membranous nephropathy (1 of 3) and IgA nephropathy (3 of 4), and not in patients with pauci-immune vasculitis (n=4) or membranoproliferative glomerulonephritides (n=3). Oligoclonal B-cell populations were not found in any of the paired peripheral blood samples derived from 13 patients having renal B-cell oligoclonality, suggesting the existence of local (auto)antigens leading to clonal expansion rather than B-cell transfer through peripheral circulation. Finally, spectratory analysis identified polyclonal or oligoclonal B-cells in all renal tissues in the absence of detectable B-cells by immunohistochemistry in the same samples.

CONCLUSIONS: These novel findings show that spectratory analysis can detect oligoclonal B-cell expansions in renal tissue from patients with active lupus nephritis and other (auto)immune-mediated glomerular diseases. Whether this standardised method can identify individual patients who could benefit from therapeutic B cell depletion deserves further study.

REFERENCES:

Disclosure of Interest: None declared