**2.07 Systemic Sclerosis – Role of the pulmonary microenvironment to drive SSc to SSc-ILD transition**

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**Background**: A common complication in Systemic Sclerosis (SSc) is the development of interstitial lung disease (SSc-ILD). However, the ***progression from SSc to SSc-ILD is not well understood***. We aimed to systematically review and identify soluble mediators in bronchoalveolar lavage fluid that differentiate patients with SSc-ILD, SSc without ILD (SSc) or healthy controls (HC) through a systematic review. **Methods**: Two databases (Web of Sci, PubMed, 2000-24) were screened. The study protocol was registered with Prospero (CRD42024556636). Data were meta-analysed using Cochrane's RevMan. STRING and G:Profiler tools were used for network/functional analyses.

**Results**: Screening identified 20 publications for inclusion; 12 were qualitatively synthesized and four meta-analysed. Meta analysis showed IL-8 was higher in SSc-ILD vs HC (SMD 1.29, $p < 0.001$, $I^2 = 38\%$). Data for SSc-ILD and SSc were found for seven mediators, six of which (***HE4, BTG, PF4, ECP, MPO and MMP-9***) were significantly increased in SSc-ILD compared to SSc. Enrichment analyses linked these mediators to immune/stress responses, IL-1/IL-26 signalling and lung fibrosis. **Conclusions**: The identified panel of pro-inflammatory and pro-fibrotic mediators, significantly different between SSc and SSc-ILD, emphasizes the importance of the pulmonary microenvironment in the development of SSc-ILD and could be further diagnostically and therapeutically explored. **Disclosures:Conflicts of interest:** Authors declare no conflicts of interest.