method. Hence, it represents a valuable tool for the clinician to assess the trough levels during ADA treatment follow up at the point of care.

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AB1167 AUTOREACTIVE T CELLS TO CITRULLINATED HSP90 IN INTERSTITIAL LUNG DISEASE IN RHEUMATOID ARTHRITIS

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Background: Previous studies have indicated that anti-citrullinated protein antibody (ACPAs) titers are associated with the presence and severity of interstitial lung disease (ILD) in RA. The lung might be a site of initiation of immunity to citrullinated proteins. Previous studying anti-citrullinated HSP90 (citHSP90 β) profiles between bronchial lavage fluid (BALF) and serum indicated the lung plays a direct role in shaping the immune repertoire of RA-ILD. **Objectives:** Whether citHSP90 β contributes to the initiation or perpetuation of autoimmune interstitial lung abnormalities (ILA) in RA remains to be clarified. To address this issue we investigated the spontaneous T cell responses to the putative autoantigen citrullinated HSP90 β in different stages of RA-ILD.

Methods: In RA-no ILD (n=19), indeterminate ILD (ILA1) (n=24), subclinical RA-ILD (ILA 2) (n=20), clinical RA-ILD (ILA3) (n=4) and other connective tissue disease associated ILD (CTD-ILD) (n=14) patients. Cultures derived from whole blood were individually stimulated with HSP90 β , citHSP90 β , citrullinated BSA, or no antigen. The concentration of 13 cytokines and chemokines in the plasma supernatant were then measured using Luminex xMAP technology.

Results: CitHSP90 β induced significantly higher levels of IFN- γ levels in RA-ILD (ILA=2+3) groups compared to the RA-no ILD group (p=0.002), but did not stimulate the production of other cytokines (p>0.05). Furthermore, citHSP90 β did not stimulate the production of IFN- γ or other cytokines stimulated those individuals with non-RA CTD-ILD (p=0.1039, IFN-g).

Conclusions: The production of IFN- γ by T cells stimulated with citHSP90 β demonstrates a bias toward TH1 immune responses that are likely involved in the pathogenesis of RA-ILD. The presence of autoreactive Th1-like cells in RA patients in conjunction with citrullinated autoantigens may indicate the involvement of this autoantigen in the pathogenesis of RA-ILD. Early targeting of the immune reactions in the lung might therefore be a new approach to modulate disease.

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AB1168 TOUCH STUDY: TECHNOLOGY AND OUTCOMES USED IN CLINIC IN A DAY HOSPITAL

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Background: Patient reported outcomes PRO are a key element in the global evaluation of patients, especially those followed in a day hospital. The use of touchscreen computers is one of the new features in the day hospital of Instituto Português de Reumatologia.

Objectives: to evaluate the transition from paper to touchscreen computers technology of the PRO in use in Reuma.pt

Methods: We considered a step up model of comparison with 2 months intervals one before the use of the touchscreen computers, one two months after the introduction of touchscreen computers and a third after an intermediate evaluation (comparison between interval 0 and 1) of the results. A specific formation to physicians and nurses to be aware of missing data from non-total completion of the questionnaires was introduced between the first and second evaluation. The percentage of questionnaires totally completed by number of patients were obtained for every period and diagnosis

Results: 631 day hospital appointments were evaluated according to diagnosis and interval and the percentage was obtained (Table 1)

Table 1. Results comparing questionnaires by diagnosis and intervals

	Paper interval 0 (Sept –Nov 15)			Interval 1 (Nov 15- Jan 16)			Interval 2 (Jan – Mar 16)		
	N	N Quest.	Pct.	N	N Quest.	Pct.	N	N Quest.	Pct.
AS									
BASDAI	95	95	100,00%	92	87	94,57%	93	92	98,92%
BASFI	95	94	98,95%	92	89	96,74%	93	92	98,92%
EQ5D	95	91	95,79%	92	85	92,39%	93	88	94,62%
AsQoL	95	88	92,63%	92	83	90,22%	93	85	91,40%
SF-36	95	80	84,21%	92	72	78,26%	93	77	82,80%
HADS	95	27	28,42%	92	87	94,57%	93	91	97,85%
FACIT	95	93	97,89%	92	91	98,91%	93	92	98,92%
RA									
HAQ	112	111	99,11%	124	124	100,00%	115	114	99,13%
SF-36	112	96	85,71%	124	101	81,45%	115	98	85,22%
HADS	112	9	8,04%	124	111	89,52%	115	114	99,13%
FACIT	112	108	96,43%	124	122	98,39%	115	114	99,13%
EQ5D	112	105	93,75%	124	119	95,97%	115	113	98,26%

Only HADS had a significative (p<0.000) improvement for every disease, with the use of the touchscreen computers from interval 1 to 2. On our intermediate evaluation comparing paper to tablet we saw a lower percentage of questionnaires fully completed (although not statistical significative) and a formal awareness formation addressing the causes was made with all the physicians and nurses of the day hospital. The PRO from Reuma.pt was not developed for tablets and some issues regarding missing data associated with that was found

Conclusions: The use of technology can contribute for better data in Reuma.pt and other national registries by saving time (medical and nurse) for clinical evaluation, by integrating patients in their evaluations and by cost reduction, and carbon footprint. Issues regarding the adaptability of software to tablet technology have to be addressed to insure an overall improvement.

Disclosure of Interest: None declared

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AB1169 COMPENSATORY INCREASE IN FC γ RIIB EXPRESSION ON B CELLS IN PATIENTS WITH SYSTEMIC SCLEROSIS

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Background: Systemic sclerosis (SSc) is a systemic autoimmune disease that is characterized by excessive fibrosis and microvascular damage. The contribution of B cells to the pathology of SSc has been mainly recognized as polyclonal B cell activation and autoantibody production. The receptor for the Fc region of IgG (Fc γ R) is member of the Ig superfamily, the members of which modulate the activation and inhibition of immune responses. Fc γ RIIB is the only Fc γ R that has an inhibitory function. Previous studies revealed that a decrease in the expression of Fc γ RIIB on B cells induced excessive immune responses and resulted in the development of autoimmunity. However, the expression levels of Fc γ RIIB on B cells in SSc currently remain unknown.

Objectives: We aimed to clarify how the abnormal activation of B cells involves inhibitory Fc γ RIIB on B cells in SSc patients.

Methods: Blood samples were collected from 76 SSc patients (38 limited cutaneous SSc [lcSSc], 38 diffuse cutaneous SSc [dcSSc]) and 59 healthy subjects. We evaluated the expression of Fc γ RIIB, CD80, CD86, and CD95 on B cell subsets. B cells were classified into five subsets depending on their surface molecular expression by flow cytometry: naïve B cells (CD19⁺IgD⁺CD27⁻), preswitched memory B cells (CD19⁺IgD⁺CD27⁺), double negative (DN) memory B cells (CD19⁺IgD⁻CD27⁻), switched memory B cells (CD19⁺IgD⁻CD27^{mid}), and plasmablasts (CD19⁺IgD⁻CD27^{high}). The mRNA expression of Fc γ RIIB was measured using real-time PCR. We examined the relationship between Fc γ RIIB expression and clinical features.

Results: The expression of Fc γ RIIB on SSc naïve B cells and DN memory B cells was significantly stronger than that on the B cells of healthy subjects (Figure 1) (p<0.05 and p<0.001, respectively). Fc γ RIIB mRNA expression on SSc B cells was also significantly stronger than that on the B cells of healthy subjects (p<0.01). The expression of CD80, CD86, and CD95, activation markers on B cells, was stronger in all 5 B cell subsets, except for CD80 in switched memory B cells and plasmablasts. Patients with the stronger expression of Fc γ RIIB on DN memory B cells more frequently had interstitial lung disease than those with normal levels (p<0.05). Cyclophosphamide pulse therapy significantly reduced the expression of Fc γ RIIB on preswitched memory B cells and switched memory B cells (p<0.05 and p<0.05, respectively).