



POSTER PRESENTATION

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Interstitial lung disease in patients with scleroderma - Treatment with rituximab

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Introduction

Interstitial Lung Disease (ILD) is a severe complication of systemic sclerosis, more common among patients with diffuse scleroderma. Cyclophosphamide (CYC) is the treatment normally used in those patients, with irregular response. We have successfully treated 3 patients refractory to CYC with Rituximab (RTX).

Patients and methods

-Patient 1: A 43 years-old woman developed progressive cough and dyspnea, with radiological changes of interstitial lung disease. She began treatment with oral glucocorticoids and monthly boluses of CYC (1g i.v).

-Patient 2: A 53 years-old woman with a diagnosis of diffuse scleroderma three years earlier, started with dyspnea during low strain at the beginning. ILD was diagnosed with characteristic ground glass pattern on thoracic CT. She was given 6 boluses of CYC and oral glucocorticoids

-Patient 3: A 48 years-old women, with skin lesions suggestive of dermatomyositis (DM). In 2007 she was diagnosed of amyopathic DM with scleroderma overlap. Three 3 months after the diagnosis, she began with cough and dry expectoration, together with dyspnea. ILD was diagnosed with characteristic ground glass

pattern on thoracic CT. She was initially treated monthly with CYC for 7 months. All patients, we started a treatment with RTX (2x1g) plus CYC.

Results

Respiratory function tests showed improvements (See table 1).

Conclusions

Overexpression of B lymphocytes in Scleroderma pathogenesis, and the bad evolution of ILD in those patients aimed us to try RTX (anti CD-20) after CYC failure. We have observed clinical improvement with respiratory test (table 1) without progression in lung CT changes. Further studies would be necessary to establish this therapeutic approach.

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Table 1

| | Pat.1. Pre-RTX | Pat.1. Post-RTX | Pat.2. Pre-RTX | Pat.2. Post-RTX | Pat. 3. Pre-RTX | Pat.3. Post-RTX |
|------------------------|----------------|-----------------|----------------|-----------------|-----------------|-----------------|
| Vital Cap (L) | 1.94 (65.2%) | 2.02 (68.5%) | 1.08 (44.8%) | 1.15 (48.3%) | 1.43 (53.4%) | 1.51 (56.7%) |
| FEV 1 | 1.75 (68.6%) | 1.81 (71.6%) | 1.08 (53.1%) | 1.09 (54.5%) | 1.12 (49.2%) | 1.18 (52.2%) |
| FEV1/VC | 90.35 | 89.69 | 99.91 | 94.86 | 78.38 | 78.15 |
| TLCOc/VA (mol/min/Kpa) | 1.20 (68%) | 1.03 (59.2%) | 0.93 (54.8%) | 1.02 (60.6%) | 1.20 (68.0%) | 1.29 (73.8%) |
| PCO2 (mmHg) | 44.1 | 42.8 | 32.6 | 40.2 | 33 | 35.1 |
| PO2 (mmHg) | 83 | 86 | 84 | 92 | 64 | 75 |
| Sat O2 (%) | 94.2 | 96.6 | 96.7 | 97.4 | 94.4 | 96.3 |