

Hypersensitivity Pneumonitis: Update on Treatment Approaches

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Disclosures

- Consulting fees from Boehringer Ingelheim, Vicore Pharma
- Research trials with Boehringer Ingelheim

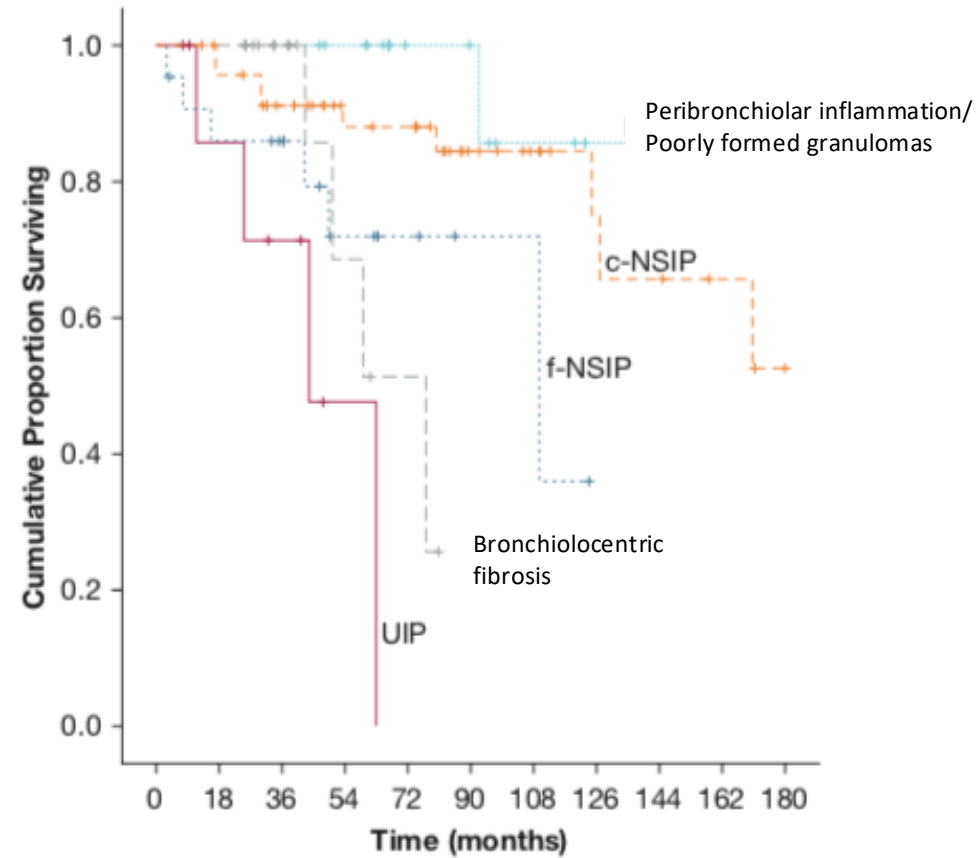
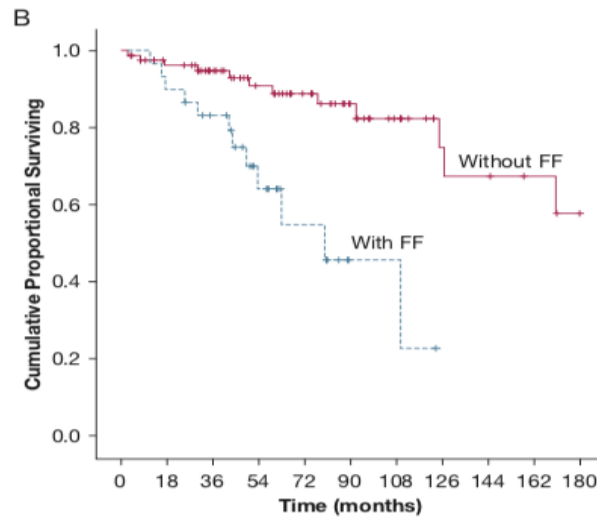
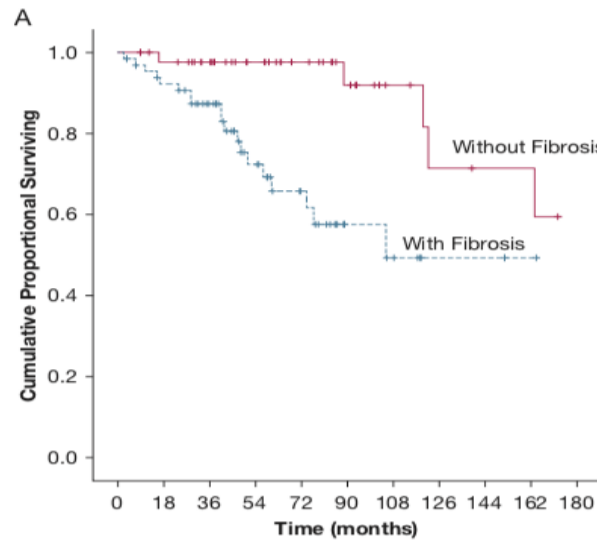


The exposure history is critical but difficult to obtain

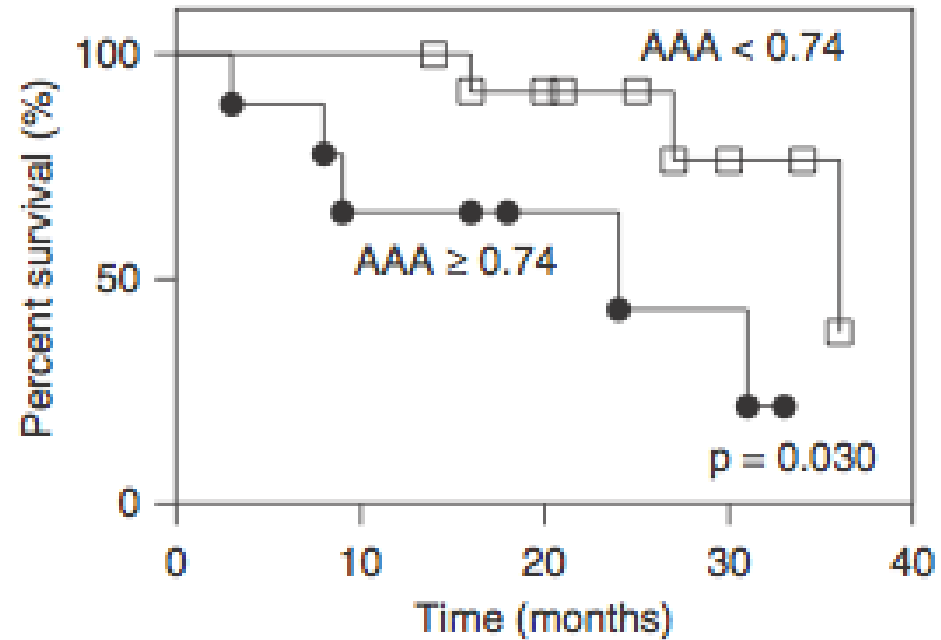


Pathology determines outcomes in chronic HP

119 patients with cHP and pathology

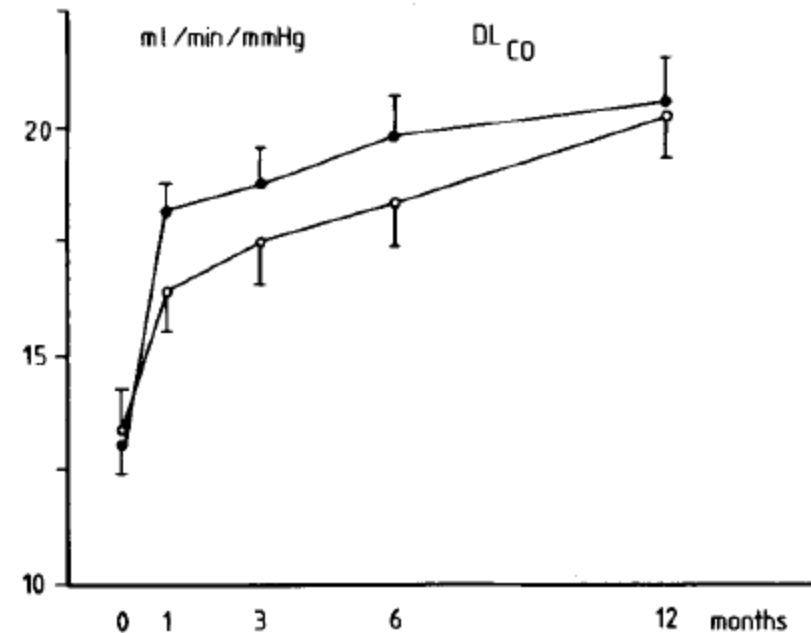
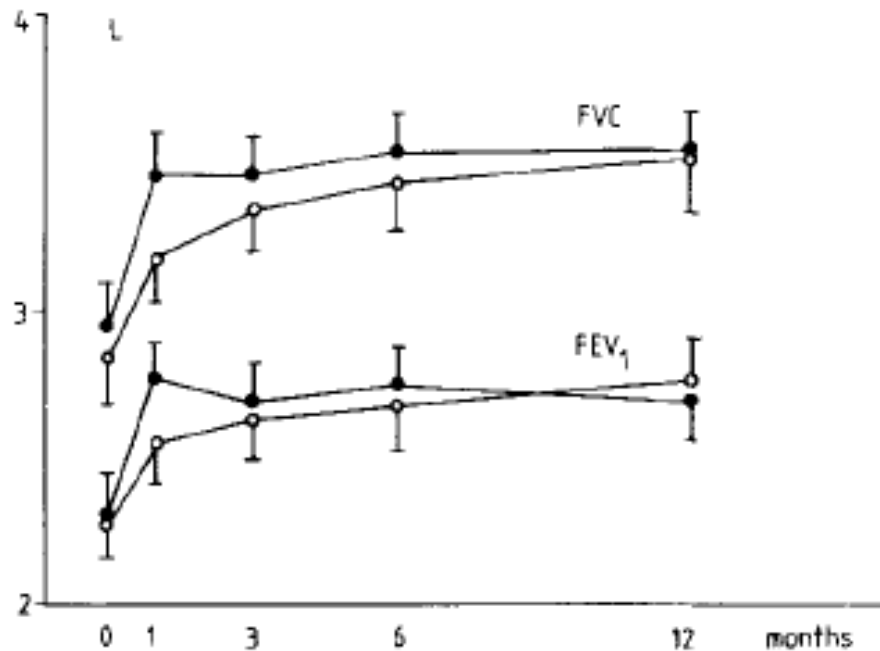


23 patients with Bird Fancier's Lung (mostly down comforters)



The impact of steroids on acute HP

- 36 patients with acute Farmer's Lung in a randomized, double-blind, placebo trial
--20 received prednisolone (40 mg tapered over 8 weeks); 16 received placebo



Steroids may be beneficial in cHP

Baseline characteristics:

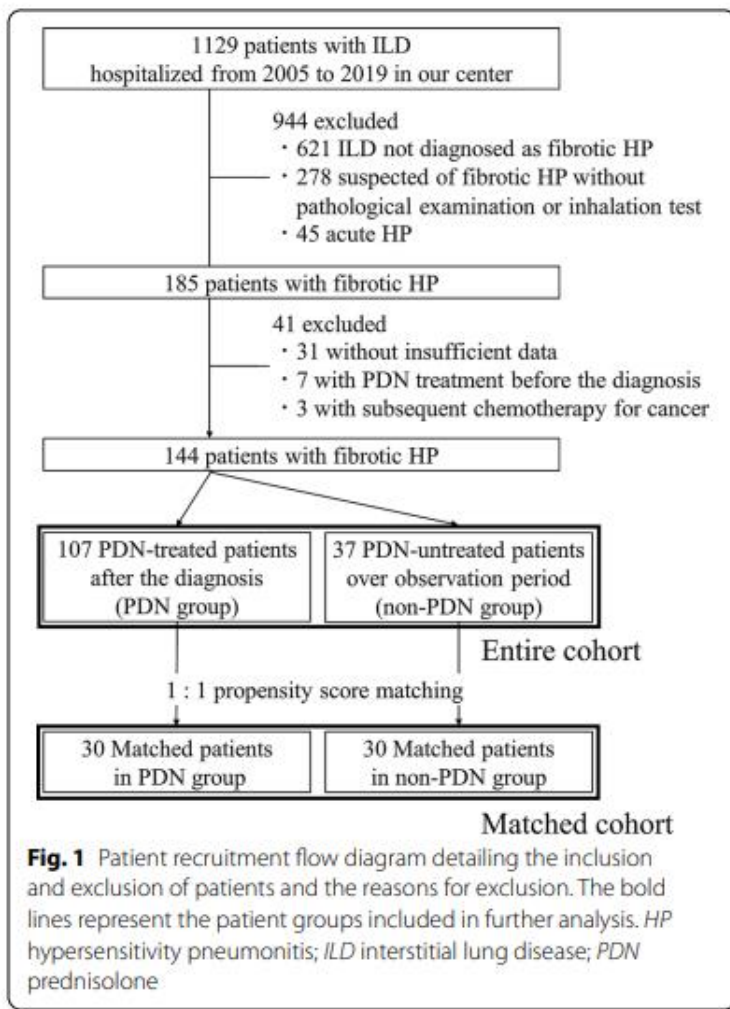
Antifibrotics

13% pred group; 22% non-pred group (NS)

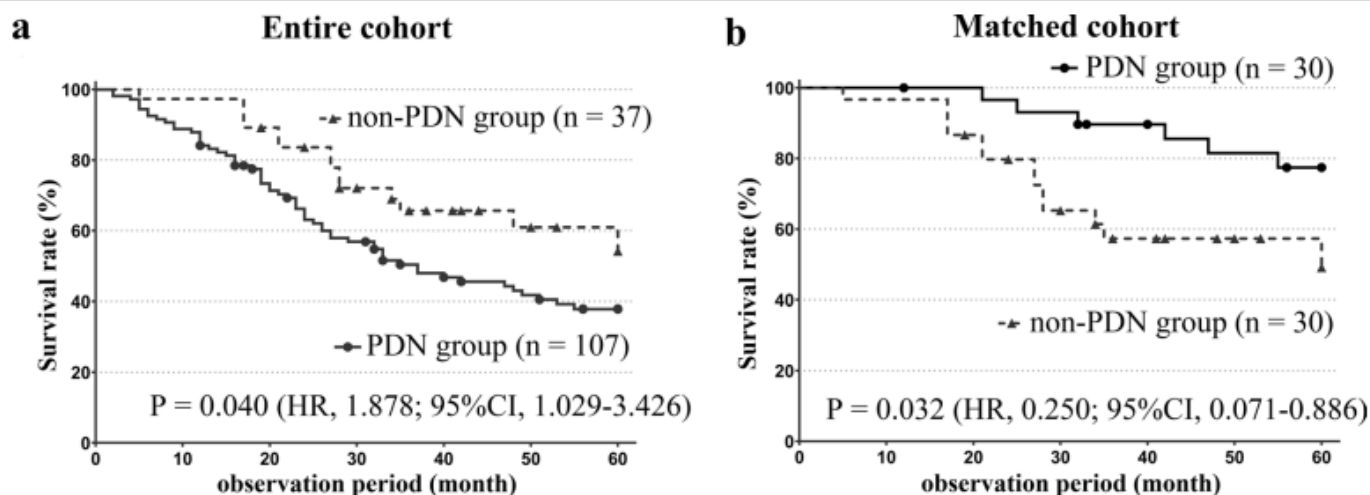
Immunosuppression

46% in the pred group (mostly CsA, TAC)

0% in the non-pred group



Steroids may be beneficial in cHP



Number at risk							
non-PDN group: 37	36	32	24	17	10	9	
PDN group: 107	95	72	55	40	32	28	

Number at risk							
PDN group: 30	30	29	27	23	20	18	
non-PDN group: 30	29	25	18	13	10	7	

Fig. 2 Kaplan–Meier curves for survival in the entire cohort and the matched cohort. Solid and dotted lines represent the PDN group and the non-PDN group, respectively. **a** In the entire cohort, the survival rate was significantly worse in the PDN group, with $P=0.040$ (hazard ratio [HR], 1.878; 95% confidence interval [CI], 1.029–3.426). The median survival periods were 37 months (95% CI 26–55 months) and NR, respectively. **b** In the matched cohort, the survival rate was better in the PDN group, with $P=0.032$ (HR, 0.250; 95% CI, 0.071–0.886). The median survival durations were NR and 60 months, respectively. CI confidence interval; HR hazard ratio; NR not reached; PDN prednisolone; SD standard deviation

For the *Entire* cohort:

PDN group was sicker at baseline

FVC 58% vs 71% ($p<0.001$)

DLCO 45% vs 56% ($p=0.005$)

PDN group had more fibrosis

Traction bronchiectasis 93% vs 78% ($P=0.03$)

Honeycombing 58% vs 38% ($p=0.055$)

For the *Matched* cohort:

Most patients did not have extensive fibrosis

Propensity score based on the following: Age, sex, smoking history, %FVC, %FEV1, presence of honeycombing, traction bronchiectasis and mosaic attenuation on CT



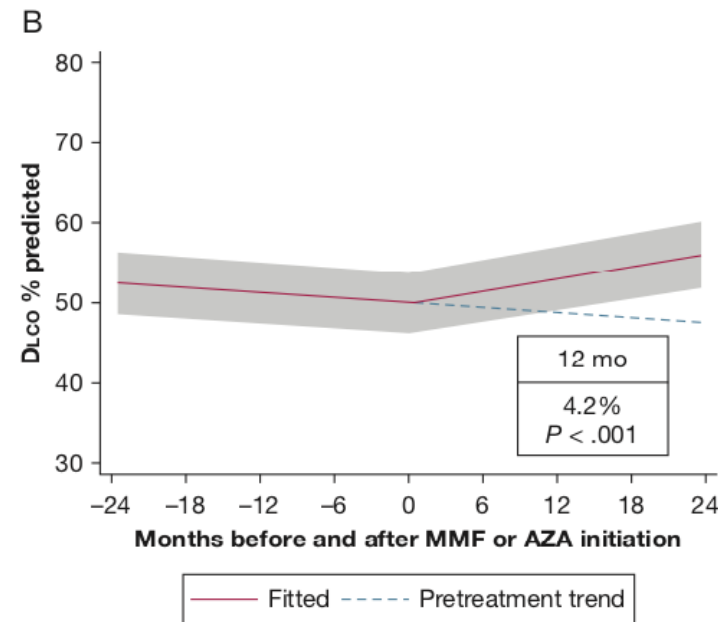
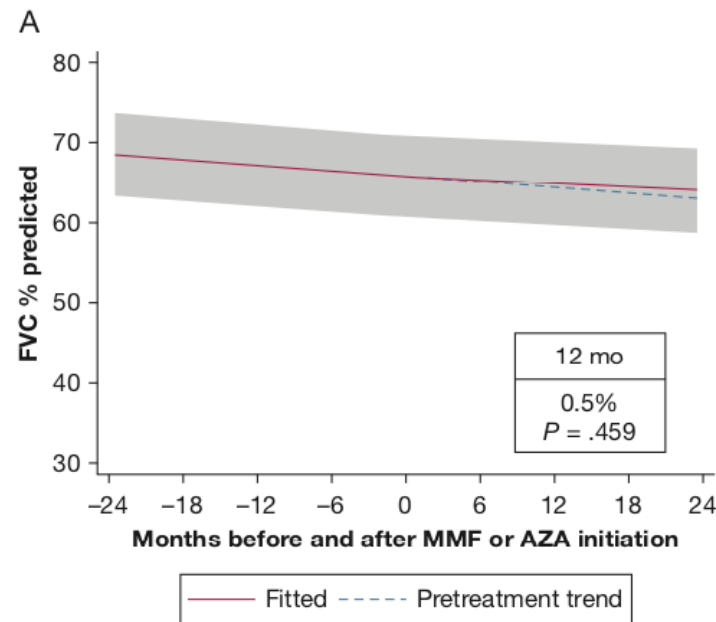
Steroid-sparing agents may be beneficial

Retrospective evaluation of 70 patients with chronic HP

51 received MMF

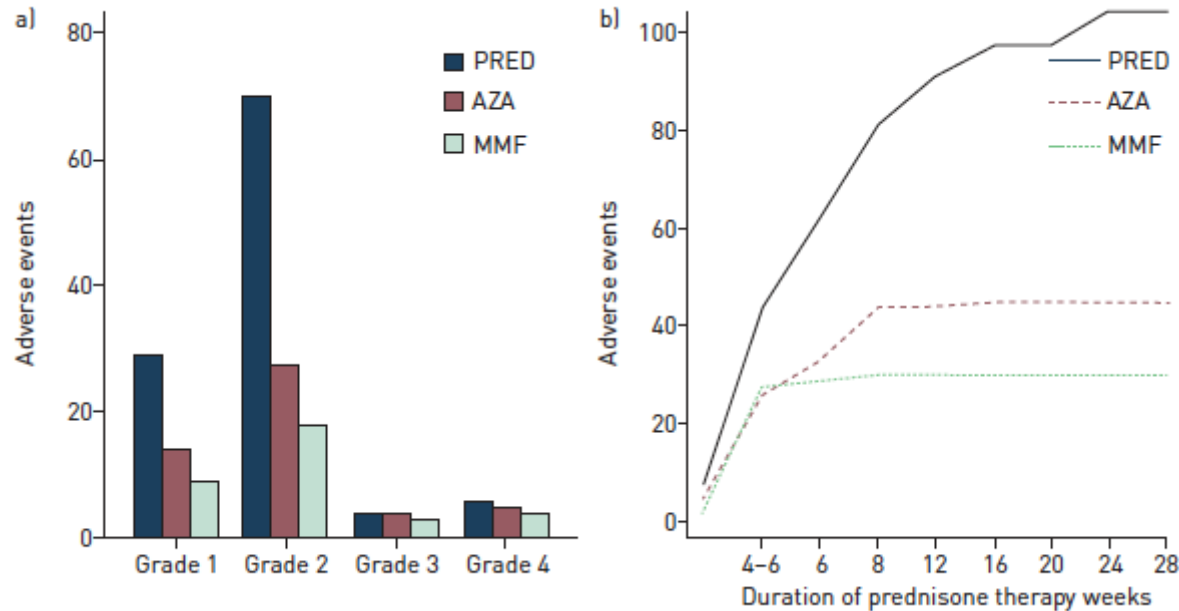
19 received AZA

(84% were receiving concurrent prednisone)



FVC 10% improvement in 13% of patients
DLCO 10% improvement in 20% of patients
Ave prednisone (mg/d) 12.3 → 3.75

Steroid-sparing agents are better tolerated than steroids in HP



- 131 chronic HP patients
- 71% received immunosuppression
- Same outcome: prednisone/AZA/MMF
- Treatment related AEs (vs prednisone):
 - 54% less w/ AZA
 - 66% less w/ MMF

Rituximab for chronic HP

Retrospective study of 20 cHP patients progressing despite antigen avoidance

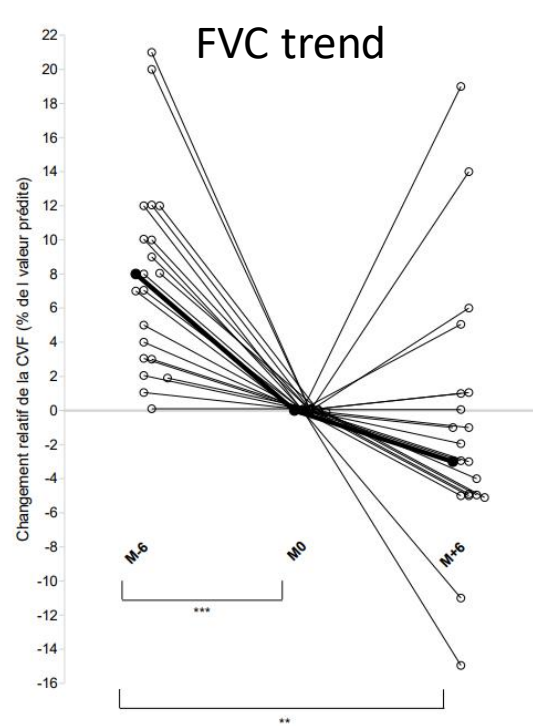


Figure 1: relative change in FVC (% of predicted value), 6 months before and after the introduction of rituximab (n = 20). The median value is represented by the bold line. ** and ***: $p < 0.01$ and < 0.001 , respectively.

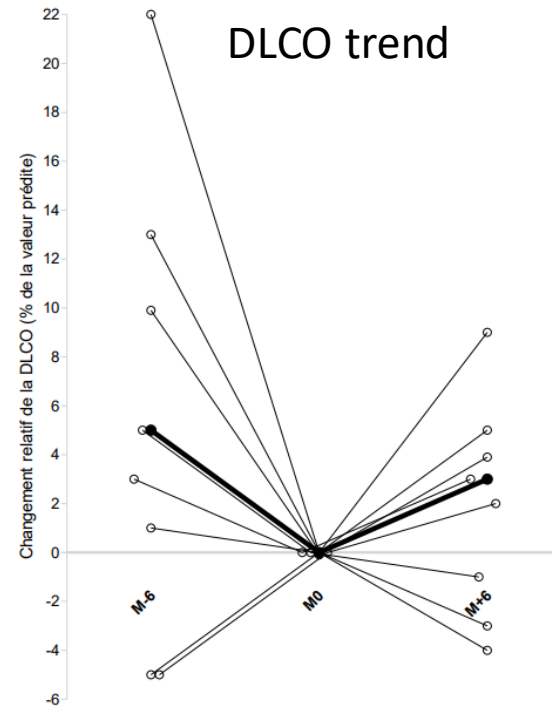


Figure 2: relative change in DLCO (% of predicted value) in 8 patients (for whom a DLCO value was available at the initiation of rituximab), 6 months before and after the introduction of rituximab. The median value is represented by the bold line.

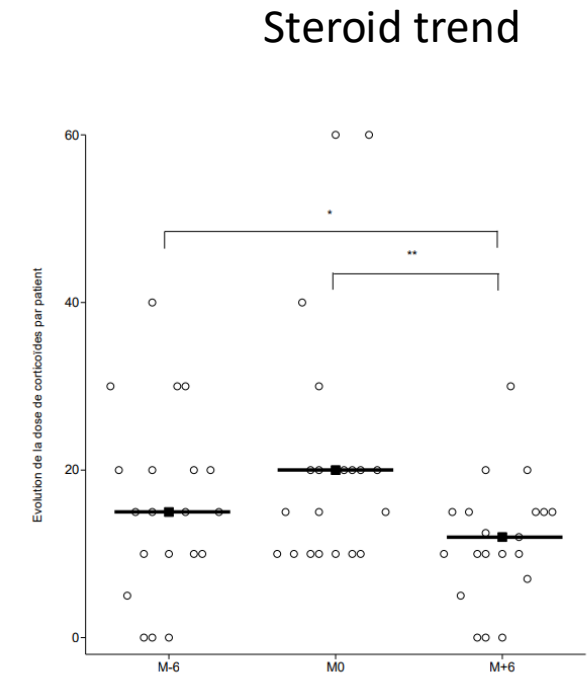
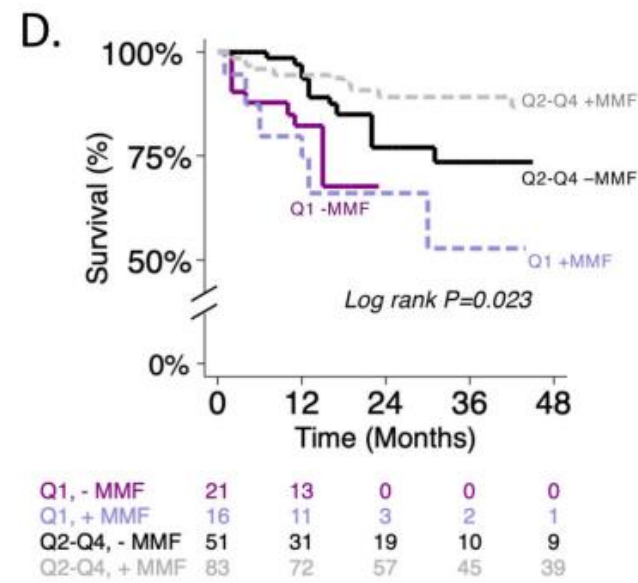
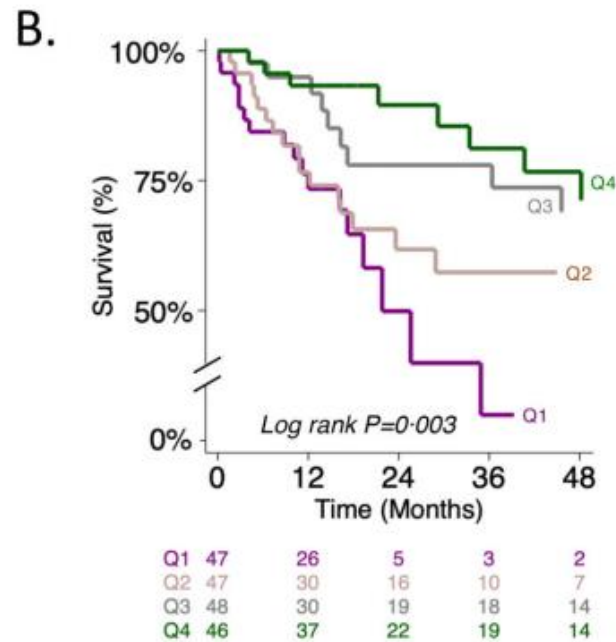


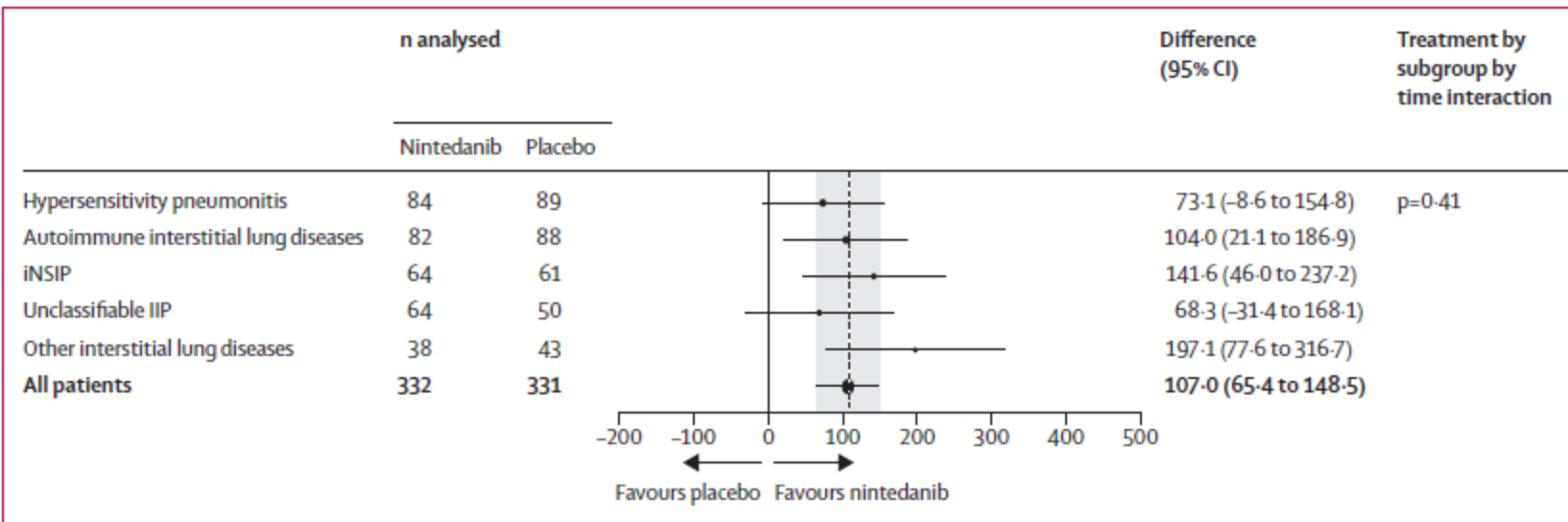
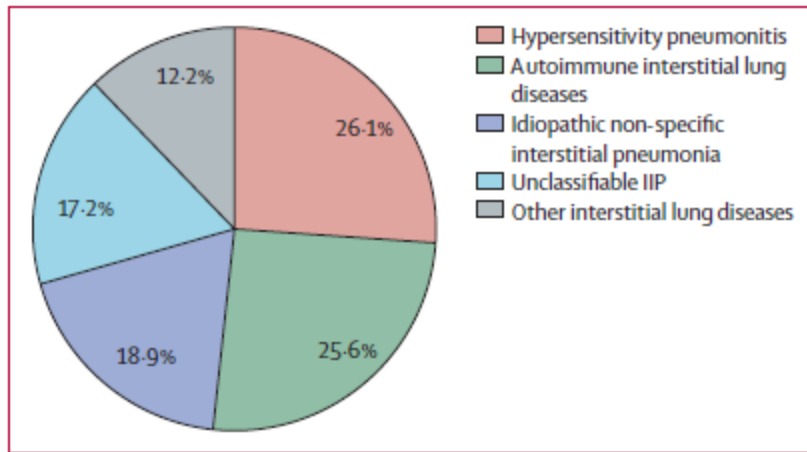
Figure 3: Difference in the dose of corticosteroids 6 months before and after the introduction of rituximab (n = 20). The median values are represented by the bold lines. * and **: $p < 0.05$ and < 0.01 respectively.

Telomere length impacts treatment outcomes in chronic HP



- 189 patients with HP
- Stratified by leukocyte telomere length

Nintedanib has been used to treat fibrotic HP (INBUILD trial)





International Pillow Fight Day
04/05/2025 (Saturday)

(Masks recommended)



Summary

- HP can be challenging to treat and frequently presents with a progressive fibrotic phenotype
- When identifiable, avoidance of the implicated organic antigen is critical
- The use of immunosuppression may improve outcomes for select patients with an inflammatory component of disease
- Antifibrotic therapy may play a role in patients with progressively fibrotic disease

