THE BURDEN OF FATIGUE IN PRIMARY SCLEROSING CHOLANGITIS: RESULTS FROM THE WIND-PSC PROSPECTIVE COHORT

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BACKGROUND & OBJECTIVES

- Fatigue is a poorly understood and debilitating symptom of PSC that can signifcantly impair quality of life.
- Data on its persistence and the relationship to other PSC symptoms are lacking.
- WIND-PSC is a global prospective observational study evaluating clinical outcomes, biomarkers and symptoms in adults with PSC.
- We report an interim analysis on the incidence, severity, and persistence of fatigue, its correlation to other symptoms and fluctuation over time.

METHODS

- Adult patients with large duct PSC are enrolling prospectively at 18 sites in North America, Europe and New Zealand.
- A patient-reported categorical symptom screening tool assessing the frequency, severity and persistence of 8 key PSC symptoms is administered at baseline and every 12 weeks.
- Evaluation criteria for fatigue symptom flux required baseline and a Week 24 assessment.
- Associations between symptom severity ratings at baseline were measured and tested using Spearman's correlation.
- Associations between movement in fatigue severity was evaluated using improvement, stability (persistence or continued absence) or worsening as categories for chi-squared tests.
- Cramer's V was used to measure strength of categorical association from 0 to 1.

PARTICIPANT CHARACTERISTICS

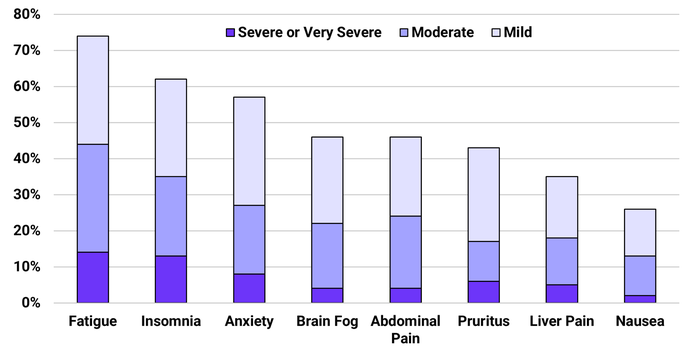
- Patient and disease characteristics were consistent with a real-world adult PSC patient population.
- At time of analysis, 261 patients were included in the baseline symptom burden analysis and 191 had complete Q2 data needed for fatigue symptom flux analysis.

Patient Characteristics	% or Median [Min - Max]
Male / Female	64% / 36%
Age	45 [18 - 74]
Duration of PSC	8y [0, 38]
IBD	All IBD: 83% Ulcerative colitis: 60% Crohn's disease: 16% Indeterminate IBD: 6%
Liver Stiffness (FibroScan)	<10 kPa: 60% 10-15 kPa: 13% >15 kPa: 12% Unavailable: 15%

BASELINE SYMPTOM BURDEN

- Most patients had ≥ 2 symptoms at baseline (69%) with 10% having all 8 symptoms and only 12% reporting no symptoms.
- Fatigue was the most prevalent symptom at baseline with the majority being moderate and severe.

Symptom	Presence	Frequency			
		Rarely	*Occasionally*	*Frequently*	*Almost Constantly*
Fatigue	75%	20%	26%	20%	9%
Insomnia	61%	21%	17%	17%	6%
Anxiety	57%	26%	18%	10%	3%
Brain Fog	46%	16%	20%	9%	2%
Abdominal Pain	45%	19%	18%	7%	2%
Pruritus	43%	19%	16%	5%	4%
Liver Pain	35%	17%	11%	5%	3%
Nausea	26%	15%	7%	4%	0.4%



FATIGUE ASSOCIATIONS AT BASELINE

Symptom	Correlation
Insomnia	0.58
Brain Fog	0.53
Abdominal Pain	0.50
Anxiety	0.47
Liver Pain	0.40
Nausea	0.39
Pruritus	0.34

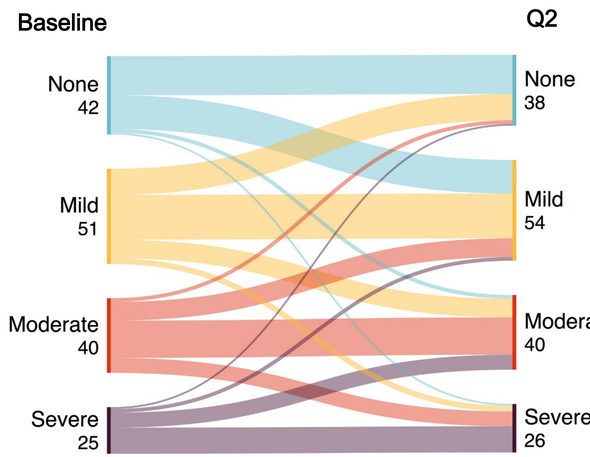
- Severity of fatigue at baseline was significantly positively correlated with all other symptom severities (all $p < 0.0001$).
- No significant association with fatigue was observed across patient demographics, duration of PSC, IBD status or liver stiffness.

Learn more about the WIND-PSC Study: pscpartners.org/research/wind-psc

FATIGUE SYMPTOM FLUX

- While aggregate fatigue severity ratings are identical from baseline to Q2, intra-patient analysis reveals significant changes in fatigue.
- Fatigue held persistent for 31%, worsened for 13%, newly developed for 12%, improved for 14%, remained absent for 13% and resolved for 11% from baseline to Q2.
- Onset or resolution of fatigue occurs primarily to/from mild fatigue.
- Patients with moderate or severe fatigue at baseline had largely persistent fatigue at Q2.
- Directional movement in fatigue was associated with corresponding movement in brain fog ($p < 0.001$, $V = 0.29$), insomnia ($p = 0.02$, $V = 0.21$), and abdominal pain ($p = 0.047$, $V = 0.20$).

Fatigue Severity Flux: Baseline to Q2



CONCLUSIONS

- Fatigue is a frequent but poorly understood symptom in people living with PSC independent of disease stage or demographics and linked to the presence and persistence of other symptoms.
- Patients with established moderate and/or severe fatigue rarely improve or resolve over time
- These data support further studies to understand the factors leading to the occurrence and persistence of fatigue and its impact on health-related quality of life.

The study is run and sponsored by PSC Partners Seeking a Cure and PSC Partners Seeking a Cure Canada

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