Fatigue In Coccidioidomycosis

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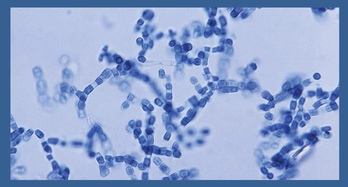

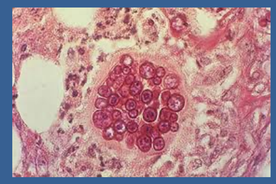

Background

Coccidioidomycosis (Valley Fever, CM) is a fungal infection endemic to the desert Southwest[1]

- Acute pulmonary infection resembles CAP[2]
- CM patients report prolonged fatigue[3,4]
- Valley Fever-related fatigue (VFRF) persists after resolution of primary infection[2]
- No validated treatment strategies exist for VFRF[5]

Project Aims

Hypothesis: VFRF represents a measurable and clinically meaningful health outcome.

Aim 1: Quantify fatigue severity among patients with confirmed CM.

Aim 2: Identify demographic and clinical factors associated with fatigue severity.

Methodology

Study Design:
- Cross-sectional analysis of confirmed CM cases
- Banner UMC Tucson Jan 2020 – Jan 2026

Participants:
- 384 confirmed CM cases (serology, culture, Bx)
- 204 with recorded **FACIT fatigue scores**[10]
- Adults ≥18 years

Outcome Measure:
- ➢ FACIT Fatigue Scale* (0–52)
  - Four-point Likert scale measuring individual fatigue based on daily activities
- **Higher score** = less fatigue / better quality of life

Categorical Methods:
- Categorization of FACIT score severity[11]
- **<30 (severe), 30 – 40 (mild), >40 (little/none**)
- Not as effective for capturing fatigue variability

Continuous Analysis:
- ➢ Better predictor of fatigue variability
- Duration of Illness, CF Titer, Age, and Length of AZ Residence (Spearman)
- Sex (Wilcoxon)
- CM Presentation (Kruskal–Wallis)

Results

Test	n	p	Effect
Age vs. FACIT	203	0.097†	Spearman ρ = 0.12
Sex vs. FACIT	203	0.063†	Δ median = 5
Duration of Illness vs. FACIT	170	0.467	
Length of AZ Residence vs. FACIT	180	0.710	
CM Presentation vs. FACIT	181	0.584	
CF Titer vs. FACIT	136	0.510	

Table 1: Comparison of demographics with FACITS score, continuous variable

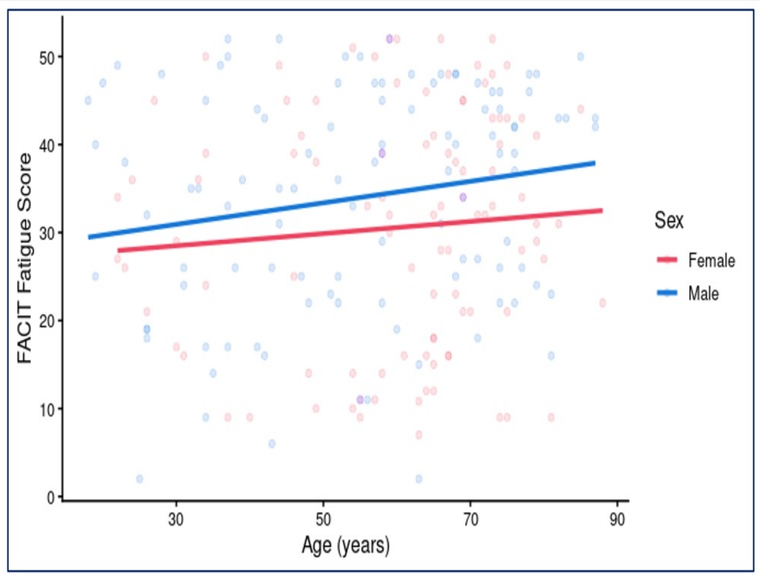

Figure 1: FACIT Score vs. Age, Stratified by Sex

Conclusion

- Older population had slightly less fatigue
  - ➢ Higher FACIT scores (ρ ≈ 0.12, p = 0.097)
- Females reported slightly greater fatigue (p = 0.63)
  - ➢ Male Median FACIT Score: **37**
  - ➢ Female Median FACIT Score: **32**
- No significant association with: Duration of illness; Length of AZ Residence; CM Presentation, CF Titer

Discussion

- Demographic and clinical variables do not explain fatigue severity
- VFRF should be recognized as a persistent and clinically meaningful outcome
- Symptom burden may persist independent of infection control
- Osteopathic treatment has demonstrated benefit in pulmonary conditions[9]
- With lack of targeted therapies: An osteopathic approach may be an option[9]

References