



HSS

Prevalence of Frailty and Associated Factors in Patient with Vasculitis

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INTRODUCTION

- Frailty, a syndrome characterized by an increased vulnerability to stressors, is associated with increased morbidity and mortality.
- Chronic inflammation and treatments may accelerate frailty in patients with vasculitis.

OBJECTIVE

- To describe the prevalence and factors associated with self-reported frailty in patients with vasculitis.

METHODS

- VascStrong is a longitudinal study utilizing the Vasculitis Patient-Powered Research Network (VPPRN).
- The VPPRN is an internet-based prospective longitudinal cohort that collects patient-reported data including medications and PROMIS measures.
- Frailty was measured using the FRAIL scale, a self-report measure which queries on 5 domains: Fatigue, Resistance, Ambulation, Illnesses, and Loss of Weight.
 - Patients were classified as robust, pre-frail, and frail if 0, 1-2 criteria, or ≥ 3 , respectively.
- Multivariable logistic regression performed to identify factors independently associated with frailty.

RESULTS

- From October 8, 2021 - January 15, 2022, 328 responses were included.
- Mean age 59.5 years, predominantly female (71.6%) and non-Hispanic white.
- Most common diagnosis was granulomatosis with polyangiitis (39.3%), eosinophilic granulomatosis with polyangiitis (12.5%), microscopic polyangiitis (11.9%), and giant cell arteritis (7.6%).
- Overall cohort, 71 (21.6%) and 138 (42.1%) classified as frail and pre-frail, respectively.
- Among individual FRAIL domains, fatigue and resistance were the most frequent (47.0% and 29.6%, respectively) while illnesses was the least common (2.4%).

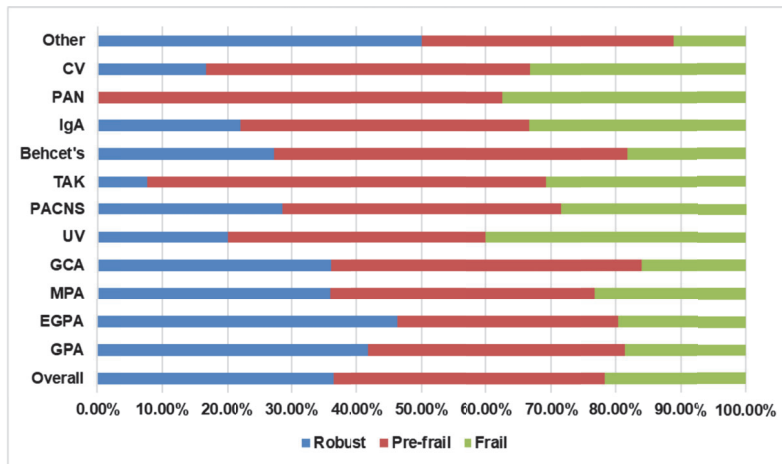


Figure 2. Frailty classification by vasculitis diagnosis.
GPA = granulomatosis with polyangiitis, EGPA = eosinophilic granulomatosis with polyangiitis, MPA = microscopic polyangiitis, GCA = giant cell arteritis, UV = urticarial vasculitis, TAK = Takayasu's arteritis, PAN = polyarteritis nodosa, PACNS = primary angitis of central nervous system, CV = cryoglobulinemic vasculitis, IgA = IgA vasculitis other diagnosis include = other/suspected diagnosis.

	Robust	Pre-frail	Frail	p-value
PROMIS-29 Pain intensity*	1.0 (0, 3.0)	3.0 (1.0, 5.0)	5.0 (4.0, 7.0)	<0.0001
PROMIS-29 T-score				
Anxiety	75.4 (71.2, 81.0)	71.2 (65.3, 77.9)	67.3 (61.4, 71.2)	<0.0001
Fatigue	48.6 (43.1, 53.1)	58.8 (51.0, 64.6)	64.6 (60.7, 75.8)	<0.0001
Depression	41.0 (41.0, 53.9)	53.9 (41.0, 58.9)	60.5 (51.8, 63.9)	<0.0001
Pain Interference	41.6 (41.6, 55.6)	53.9 (41.6, 58.5)	63.8 (61.2, 66.6)	<0.0001
Physical functioning	48.0 (43.4, 56.9)	43.4 (39.1, 48.0)	34.4 (32.1, 36.7)	<0.0001

Data presented as median (interquartile range)
*Raw score, scale 0-10.

Table 2. Patient-reported outcomes by frailty classification

Variable	Odds Ratio	95% CI	p-value
Age (years)	1.01	(0.98, 1.03)	0.770
Non-white, race	1.14	(0.39, 3.27)	0.815
Female sex	2.76	(1.29, 5.89)	0.009
Disease duration (years)	1.01	(0.97, 1.05)	0.746
Glucocorticoid dose (mg)	1.02	(0.99, 1.04)	0.140
Body mass Index			
Underweight/normal	Reference	Reference	Reference
Overweight	5.02	(2.13, 11.84)	<0.001
Obese	7.34	(3.25, 16.57)	<0.001

Table 3. Multivariable logistic regression of factors associated with frailty

CONCLUSION

- Self-reported frailty or pre-frailty is prevalent in the majority of patients with multiple forms with vasculitis and is associated with worse health-related quality of life.
- Female sex, overweight and obesity were independently associated to frailty.
- Identifying factors affecting frailty trajectories and outcomes could inform development of interventions focused on ameliorating frailty in patients with vasculitis.

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