



## OBJECTIVE

A study to investigate the clinical characteristics of disease onset in veterans with Parkinson's disease followed in a tertiary referral Veterans Affairs Medical Center.

## BACKGROUND

Parkinson's disease (PD) is a heterogeneous disorder with clinically distinguishable sub-types. The distinguishing features of various (age, symptom, or population based) sub-types are continually being explored, but far from being fully understood. A better understanding of PD characteristics, especially at onset, with respect to a specific patient population, is likely to facilitate early disease identification and management and may offer insights with respect to disease patho-physiology.

## METHODS

Using a standardized chart review approach, medical records of 321 consecutively evaluated PD patients, followed in the Parkinson's Disease Research, Education and Clinical Center of the Michael E. DeBakey VA Medical Center at Houston, TX were reviewed. The selected patient records contained demographic data, descriptions of the initial symptoms (type and distribution), and a detailed clinical assessment including standardized evaluation of parkinsonism using Unified Parkinson's Disease Rating Scale (UPDRS).

Table 1: Patient demographics and onset type

Demographics		N (%)
<b>Gender</b>	Men	314 (97.8%)
	Women	7 (2.2%)
	Total	321 (100%)
<b>Ethnicity</b>	White	256 (79.8%)
	Black	40 (12.5%)
	Hispanic	22 (6.9%)
	Other	3 (0.9%)
<b>Age in years</b>	Symptom onset	
	[N] mean (range)	[N=309] 65 (28-88) 67 median
Initial evaluation	[N] mean (range)	[N=321] 72 (32 - 93) 74 median
	<b>Handedness</b>	
	Left	24 (7.5%)
	Right	289 (90.0%)
	Ambidextrous	2 (0.6%)
	Unknown	6 (1.9%)
<b>Onset</b>	Unilateral	251 (78.2%)
	Right	167 (66.5%)
	Left	84 (33.5%)
	Total	251 (100.0%)
	Axial	46 (14.3%)
	Bilateral	24 (7.5%)
Total	321 (100%)	

## RESULTS

Figure 1: Most commonly recalled initial symptom

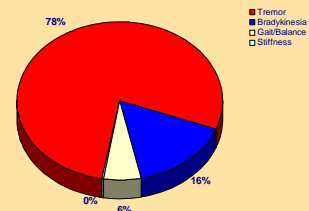


Figure 2: Most common initial presentation for tremor

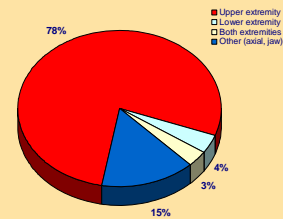
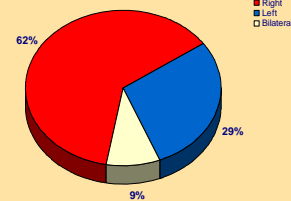


Figure 3: Upper extremity initial presentation distribution



## RESULTS

The sample largely consisted of right handed (90%) Caucasian (80%) men (98%) (n=314). Median age of disease onset was 67 years (range 28- 88 years). Asymmetric onset was common (n= 251, 78%). Right hemi-body was involved almost twice as often (n= 167, 66.5%) as the left hemi-body (n= 84, 33.5%). Handedness predicted the side of asymmetric onset. ( $p < 0.05$ ). Table 1

Exclusive involvement of the upper extremities was the most common presentation (78%). Figure 2

Among the subgroup with upper extremity initial presentation (n=250, 78%), right upper extremity was the most common site recalled for initial symptom emergence (n=156, 62%), followed by left upper extremity (n=72, 29%); the remainder had bilateral symptoms (n=22, 9%). Figure 3

Axial onset was reported in 14.3% (n=46) and bilateral (appendicular) in 7.5% (n=24) of the patients. Table 1

Tremor was the most commonly recalled initial symptom (n=247, 78%), followed by bradykinesia (n=50, 16%). Gait and balance difficulty at onset was reported by 6% (n=18) patients. Amongst the cardinal symptoms of PD, stiffness (or rigidity) was the least recalled initial symptom (n=1, 0.31%). Figure 1

## CONCLUSION

Veterans with Parkinson's disease appear to be older at disease onset and have a higher incidence of tremor as an initial symptom, as compared to PD patients in the general population.

### Reference List

- (1) Bain PG. The Management of Tremor. *Journal of Neurology, Neurosurgery, and Psychiatry*. 2002;72:13-9.
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- (3) Uitti RJ, Baba Y, Wszolek ZK, Putzke DJ. Defining the Parkinson's disease phenotype: initial symptoms and baseline characteristics in a clinical cohort. *Parkinsonism Relat Disord*. 2005;11:139-145.

