

## Hip Fractures Treated During the Initial Stages of the COVID Pandemic: The Effect of COVID on 1-Year Outcomes

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**Purpose:** The purpose of this study was to assess the impact of COVID on long-term outcomes in the geriatric hip fracture population. We hypothesize that COVID+ geriatric hip fracture patients had worse outcomes at 1-year follow-up.

**Methods:** Between February and June 2020, 235 patients >55 years old treated for a hip fracture were analyzed for demographics, COVID status on admission, hospital quality measures, 30- and 90- day readmission rates, 1-year functional outcomes (as measured by EuroQol-5 Dimension-3 Levels [EQ-5D-3L] questionnaires), and inpatient, 30-day, and 1-year mortality rates with time to death. Comparative analyses were conducted between COVID+ and COVID- patients.

**Results:** 26 patients (11%) were COVID+ on admission. All patients underwent operative treatment. No demographic differences were seen between cohorts. COVID+ patients experienced a longer length of stay ( $8.35 \pm 6.32$  vs  $5.27 \pm 3.09$ ,  $P < 0.01$ ) and higher rates of inpatient (19.23% vs 0.96%,  $P < 0.01$ ), 30-day (23.08% vs 4.78%,  $P < 0.01$ ), and 1-year mortality (53.85% vs 18.18%,  $P < 0.01$ ). There were no differences seen in 30- or 90-day readmission rates, 1-year functional status, or status. While not significant, COVID+ patients experienced a shorter average time to death post discharge ( $56.14 \pm 52.85$  vs  $102.29 \pm 62.16$ ,  $P = 0.146$ ).

**Conclusion:** COVID+ geriatric hip fracture patients experienced significantly higher rates of mortality up to 1 year. However, COVID+ patients who did not die experienced a similar return to 1-year function as the COVID- cohort.

**Figure 1:** Comparison of COVID+ and COVID- hip fracture patient outcomes.

1 Year Follow Up Comparison	COVID +	COVID -	P Value
Variables	N (%)	N (%)	N (%)
<b>All Comers</b>	26 (11%)	209 (89%)	
<b>Functional Outcomes (EQ5D-3L)</b>			
Index Score	$0.71 \pm 0.36$	$0.69 \pm 0.43$	0.948
Visual Analog Scale (VAS) Score	$72.50 \pm 34.50$	$72.09 \pm 37.67$	0.866
<b>Hospital Quality Measures</b>			
Length of Stay	$8.35 \pm 6.32$	$5.27 \pm 3.09$	<0.01
<b>Readmissions</b>			
30 Day Readmission	3 (11.54%)	15 (7.18%)	0.392
90 Day Readmission	3 (11.54%)	25 (11.96%)	0.996
<b>Mortality</b>			
Inpatient	5 (19.23%)	2 (0.96%)	<0.01
30 Day	6 (23.08%)	10 (4.78%)	<0.01
1 Year	14 (53.85%)	38 (18.18%)	<0.01
Post-Discharge Time to Death (Days)	$56.14 \pm 52.85$	$103.29 \pm 62.16$	0.146

See the meeting website for complete listing of authors' disclosure information. Schedule and presenters subject to change.