

# MORTALITY AMONGST NECK OF FEMUR FRACTURES WITH COVID-19 IN 2020- LESSONS LEARNED

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# Introduction

- Covid 19 and its effects has changed the medical practices. The year with social distancing, masks has its impact on orthopedic patients as well.
- COVID-19 mortality rates are higher in people with comorbidities, so hip fracture patients are as a population at higher risk of poor outcomes from COVID-19.
- The aim of this study was to to determine the mortality rates of neck of femur fractures in covid patients in 2020 and to determine the risk factors associated with the mortality.



# Methods

- Retrospective study between March to December 2020
- All patients with neck of femur fractures admitted with laboratory/radiologically/ clinically diagnosed COVID-19 during admission or until 3 weeks post discharge.
- Based on mortality at 90 days, two groups: 26 patients in Survivor group, 25 in non survivor group.
- Data compared: ASA, Nottingham hip fracture score(NHFS), Charlton comorbidity index(CMI), complications, length of stay among the two groups.



**Survivors**



**26 patients**

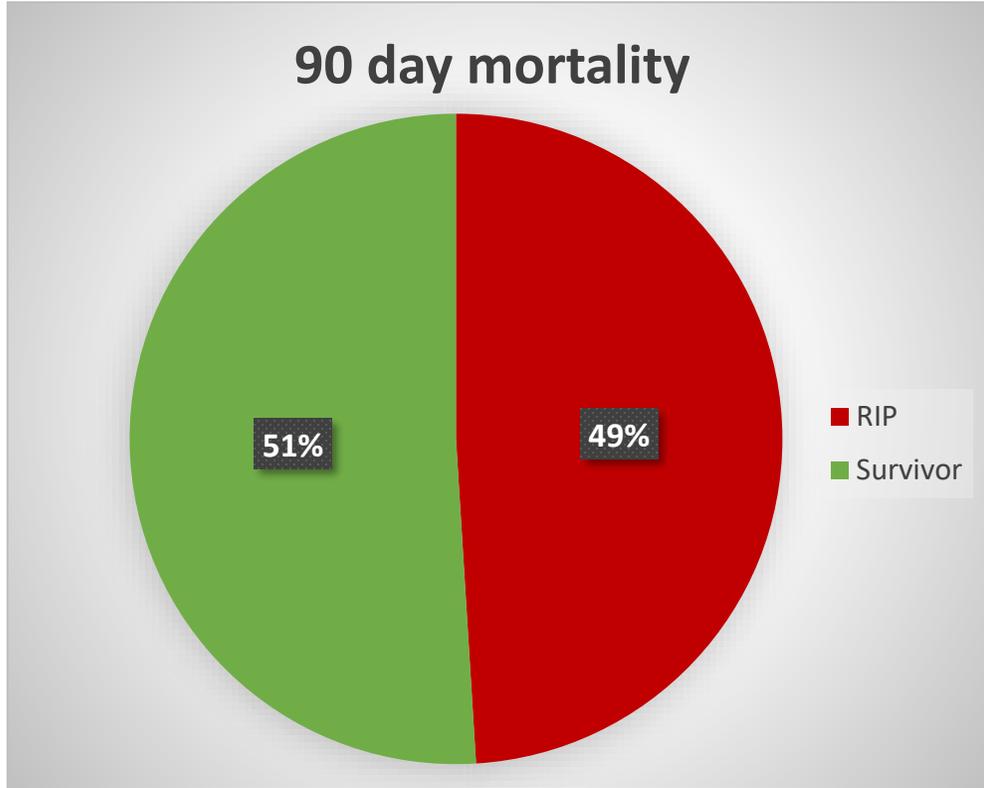


**NON Survivors**



**25 patients**

# Results



90 day mortality : 25 out of 51 i.e 49 %

Parameter	Overall	Non Survivor	Survivor
Total no. of patients	51	25(49.01%)	26(50.9%)
Age (years)	80.68 ± 10.99	81.79±11.15	76.65±10.97
<b>Fracture type:</b> Neck of femur(intracapsular fracture)	34	14(41.1%)	20
IT(extracapsular fracture)	15	9(60%)	6
Subtrochanteric fracture	2	2(100)	0
<b>Residence:</b> Own home	39	16	23
Care home/Nursing home	12	9(75%)	3(25%)
<b>Time to theatre</b> <48 hours	45	19	26
>48 hours	6	6(100%)	0
<b>When covid acquired?</b> Preadmission	18	8	10
Inpatient	33	17	16
<b>Type of Operation:</b> Not operated/Conservative	3	3	0
THR	1	0	1
Hemiarthroplasty	27	8(29.7%)	19
DHS	12	9(75%)	3
Im nailing	6	4(66.6%)	2
CC screw	1	0	1

# How are the other trusts doing

Study	No. of covid positive	30 day mortality	90 day mortality	Risk factors
Babar Kayani et all( London study)	82	25 out of 82 (30.5%)	Not assesed	>3 comorbidities
Andrew hall et all(IMPACT scot) Scottish study	78	34.6%	Not assesed	Male sex, NHF>7, pulmonary disease, length of stay>9days
Our study	51	35.3%	49%	As listed below

# Conclusions

- 30 and 90 days mortality is 35.3 and 49% respectively
- Risk factors for mortality
  - Males (59%)
  - NHF  $\geq 5$  (58.3%)
  - Dementia(70.5%) COPD(64.3%), CVA (55.5%),,, Liver Disease(100%), CKD(100%)
  - AMTS $<8$  (59.1%)
  - Care home resident(75%) $>$  own home
  - Operated  $>48$ hours(100%)
  - IM nailing(66.6%) $>$ DHS(75%) $>$ Hemiarthroplasty
  - Prolonged Hospital stay

# Recommendations

- ▶ Educate junior doctors, all staff about the BOAST guidelines and Importance of early surgery in NOFF
- ▶ Avoid prolonged hospital stay
- ▶ Take all precautions to prevent spreading COVID as inpatient like hand hygiene, social distancing, face masks etc
- ▶ Wide coverage of COVID vaccination especially among elderly
- ▶ Identification of high risk factors contributing for mortality and take extra precaution in such individuals
- ▶ Educate all staff( FY1 to consultant) regarding the high risk group of mortality
- ▶ ? Follow up of those with  $>3$  or more of above risk factors with medical team/orthogeriatric team