

Introduction

NHS England's COVID-19 pandemic guidance recommended an increased reliance on spinal anaesthesia for femoral fragility fracture patients. In our hospital this saw an increase in its use from 3.6% in Jan 2019 to 29.1% in June 2020. This change in practice prompted a detailed review of patient outcomes.

- This study took place in Southmead Hospital; a Major Trauma Centre in the UK.
- Elderly trauma patients receive joint care under Geriatric & Orthopaedic teams. There are dedicated trauma theatres and Anaesthetists. All trauma services continued uninterrupted during the pandemic.

Aim

Comparison of post-operative outcomes following general anaesthesia (GA) and spinal anaesthesia (SA) in patients admitted to our centre with femoral fragility fractures during the COVID-19 pandemic.

Methods

- The study comprised a retrospective data review of all patients who were admitted to Southmead Hospital with femoral fragility fractures in May and June 2020.
- Electronic patient records and observation charts were reviewed for demographic and clinical data.

Results

123 patients were identified with 116 included in the study (exclusions: 4 patients did not undergo surgery, 1 patient had incomplete records, 2 patients had both GA and SA). 60 patients had GA, 56 patients had SA.

Patient Characteristics	GA Group (%)	SA Group (%)
Age		
60-69	7(12)	10(18)
70-79	9(15)	13(23)
80-89	32(53)	22(39)
90-99	11(18)	9(16)
100-109	1(2)	2(4)
American Society of Anaesthesiology (ASA) Score		
1	2(3)	3(5)
2	9(15)	14(25)
3	35(58)	31(55)
4	14(23)	8(14)

Adverse outcomes fig. 1

- Intraoperative hypotension and day 1 (D1) hypotension were observed more in the GA group.
- Pain and delirium however were similar in the two groups.

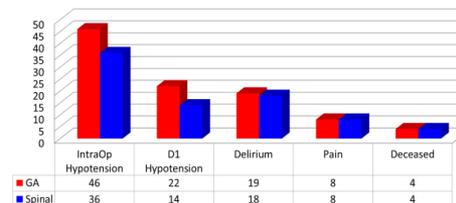


Fig. 1 Adverse outcome by mode of anaesthesia

Mobilisation fig. 2

- There was a trend towards improved early (D1 and D3) mobilisation in the SA group. The main reasons for failure to mobilise in both groups were hypotension, pain and delirium.

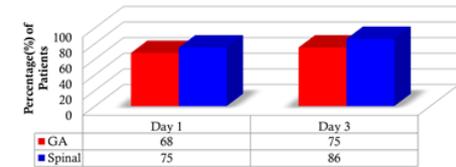


Fig. 2 Mobilisation on day 1 and 3 by mode of anaesthesia

Length of Stay (LOS) fig. 3

- There was a trend towards reduced length of stay (LOS) in the SA group – 15 days for GA versus 12.8 days for SA.

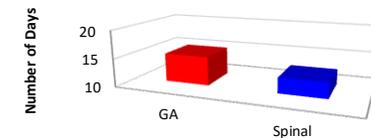


Fig. 3 Length of stay by mode of anaesthesia

Discussion

- Demographic data suggested that GA patients were older, frailer and more likely to have had complex procedures.
- Hypotension is known to be associated with poorer outcomes in this patient group and in our study this occurred less often in the SA group. Other adverse outcomes however were similar between the two groups.
- LOS is highly multifactorial in nature and demographic difference between the groups may have had an impact, but LOS was lower in the SA group.

Conclusions

- Our results showed a trend towards decreased hypotension, improved early mobility and reduced LOS in the SA group.
- Pain and post operative delirium were similar between both groups prompting further work on the potential impact of standardisation of anaesthetic technique for both SA and GA.