Robotic Surgery in the elderly. Results from a Gynaecology Oncology Centre on the Thirty-Day mortality and morbidity in the octogenarians

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BIARGS British & Irish Association of Robotic Gynaecological Surgeons

INTRODUCTION

With increasing life expectancy, octogenarians represent a growing population. Besides advancing age, frailty and pre-existing co-morbidities may impact the surgical options in women with suspected/confirmed gynaecological cancer due to concerns over morbidity and mortality rates. Robotic surgery in gynaecological oncology (GO) seems to be of value; however, there is paucity of outcome data and lack of clear national benchmarking for the very elderly patients**.**

METHODS

A retrospective audit study of patients aged 80-year-old and over, who underwent robotic assisted gynaecology surgery from January 2010 till March 2021. In the Royal Surry County Hospitals, Guildford, UK. An electronic search of a locally dedicated gynaecology oncology database that collects the data prospectively in real time utilized to obtain the details of all the patients who underwent robotic gynaecology surgery in our institute over the defined period. The final number of patients included in the study was 113. The clinical notes of the study cohort had then been reviewed for complete data collection. All of the 113 operations were performed using The Da Vinci Robot platform and were all included in the analysis. The surgical skill mix of the operating team included four gynaecology oncology consultants, subspecialist gynaecology oncology trainees, senior clinical fellow and senior clinical research fellow.

RESULTS

- The median age was 82.8 (81.1-85.0) and mean BMI of 28.9(5.5). The commonest ASA grade was 2 and 3. Pre-existing medical co-morbidities were captured and represented in Table (1). In total, the mean length of hospital stay was 2.13 day with the 95% CI [1.65,2.61]. The mean estimated blood loss (EBL) was 62.57ml. The mean operation time was available for 81 patients (71%) and was 162.6 minutes.

- Overall, 92% procedures undertaken for uterine pathology and predominantly for endometrial cancer. Graph (1).

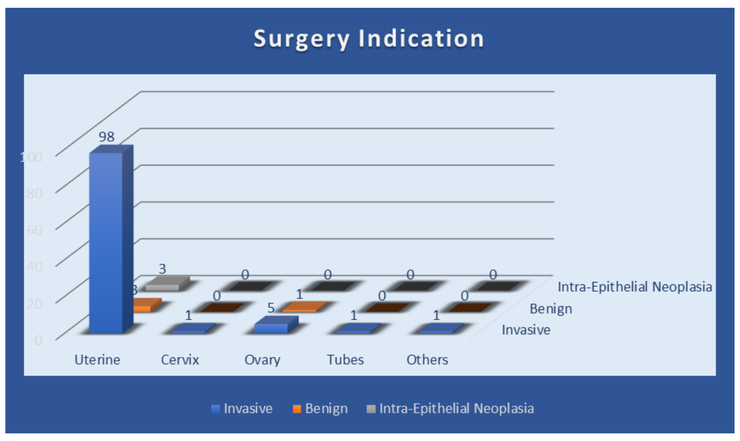
- Intraoperative complications rate was 10.6% with the commonest being bladder injury (33%). Graph (2). Post-operative Complications were defined according to the Modified Clavien-Dindo Classification, major complications (grade II to IV) rate was 20.5%. Table (2).

Pre-existing Co-morbidity	
Hypertension	73(64.6%)
Cardiac	33(29.2%)
Diabetes	29(25.7%)
Respiratory	7(6.2%)
Musculoskeletal	49(43.3%)
Neurology/psychiatric	13(11.5%)
Other neoplasms	23(20.4%)
Coagulation/thrombosis	5(4.4%)
Gastrointestinal	15(13.3%)
Endocrine	16(14.2%)
renal	15(13.3%)
Autoimmune	6(5.3%)
Hypercholesterolemia	25(22.1%)
Eye	13(11.5%)
Missing or incomplete notes	8

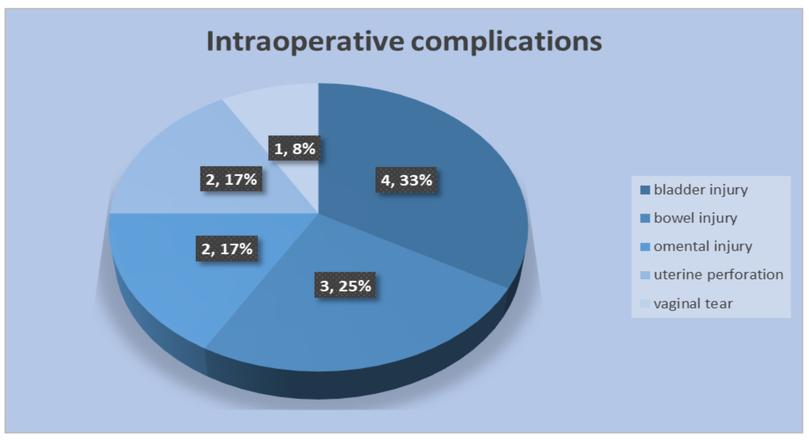
Table (1)

Complications Category	Clavien-Dindo Modified Classification Grade	Frequency	Incomplete or missing data	Total number analysed (n)	Percentage
Blood Transfusion	II	0	4	109	0%
Port site /wound infection	II	5	6	107	22.7%
	III-b	1			4.5%
Wound /vault Haematoma	II	1	6	107	4.5%
	III-a	1			4.5%
	III-b	1			4.5%
Urinary tract infections	II	7	6	107	31.8%
Respiratory	I	3	6	107	13.6%
Bowel obstruction	III-b	2	6	107	9%
Bowel perforation	II	1	6	107	4.5%
	III-b	1			4.5%
Ileus	I	2	6	107	9%
Cardiac	I	3		107	13.6%
Neurological	I	2	6	107	9%
	IV	1			4.5%
Electrolyte disturbance	I	5	6	107	22.7%
Prolonged catheterization	I	8	6	107	36.6%
Incisional Hernia	III-b	1	6	107	4.5%
Thromboembolic events	N/A	0	6	107	0%
Re- admission	N/A	N/A	5	107	22.7%

Table (2)

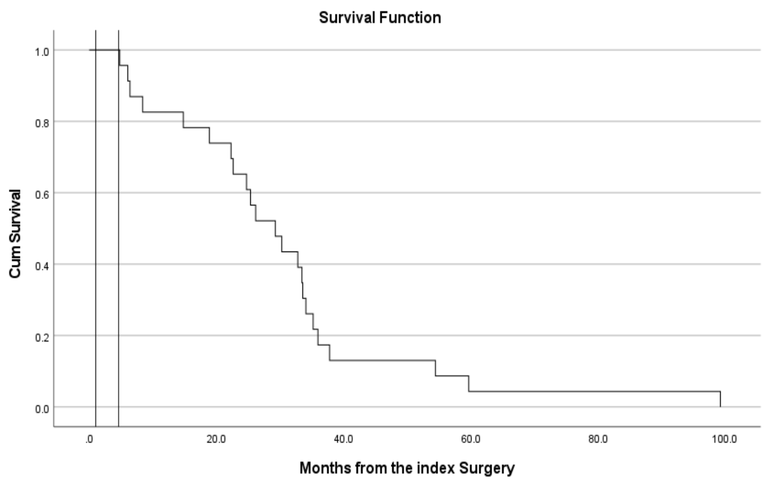


Graph (1)



Graph (2)

- There were no recorded death within 30 days from the surgery. Giving an overall 30-day mortality rate of (0%).



CONCLUSIONS

Robotic surgery in the octogenarians appears to be safe and feasible surgical option. Despite the frailty and multiple co-morbidities, the overall 30-day morbidity and mortality rates are consistent with those reported in the literature and significantly lower than open surgery. In our study the overall intraoperative 30-day morbidity and mortality rates were 10.6% and 20.5% and 0%, respectively. This is comparable to the quoted UKGOSOC post-operative complications rate of 26% to 27%. A national audit across this age group may validate the role of minimally invasive surgery in this cohort.