BRITISH SOCIETY OF UROGYNAECOLOGY (BSUG)

ANTERIOR AND POSTERIOR VAGINAL REPAIR: 2008 - 2018

COMPARISON OF DAY CASE AND NON-DAY CASE OUTCOME DATA

NATIONAL REPORT

BSUG AUDIT AND DATABASE COMMITTEE 2021

Registered charity No 1143157

Contents

Summary

- From 2008 – 2018, less than 20% of anterior and posterior repairs were day case procedures.
- About 80% of day cases were carried out under general anaesthesia. Local anaesthesia alone was used in about 10% of day cases.
- Both day case anterior and posterior repairs had a high cure rate based on PGI-I at 6 months or less.
- Complication rates for both day cases and non-day cases were low.
    - Non-day case posterior vaginal repairs had a higher postoperative readmission rate compared with day cases.
- Complication rates should be interpreted with caution.
    - The proportion of intended day cases that required conversion to non-day cases because of complications was unknown. This would have increased the incidence of surgical complications in non-day cases.
    - Patient comorbidities and prolapse characteristics between day cases and non-day cases may have differed. This would influence the incidence of complications and cure rates.
- Day case posterior repairs had a higher rate of prolapse at a new site compared with non-day cases.
    - This could be due to a reluctance to carry out additional procedures to avoid converting a planned day case into an inpatient.
- The audit was not able to make a valid comparison between day cases and non-day cases for sole anterior or posterior vaginal repairs. It requires the number of procedures originally intended as day cases to be known, and homogeneity of comorbidities and prolapse characteristics between the groups.

CHAPTER 1: Aims

AUDIT OBJECTIVE

To compare outcomes for day case and non-day case anterior and posterior vaginal repairs.

CHAPTER 2: Methods

2.1 DATA SOURCE

BSUG Audit Database.

2.2 AUDIT TIMEFRAME

2008 to 2018 (11 years).

2.3 CASES INCLUDED

- Sole native tissue anterior vaginal wall repairs
- Sole native tissue posterior vaginal wall repairs

Cases with minor concomitant procedures such as Mirena insertions, cystoscopies and removal of pessaries for prolapse were included. Such cases were unlikely to affect the length of stay, effectiveness of the procedure and incidence of complications. Cases with minor concomitant continence procedures such as mid-urethral tapes and bladder neck injections were excluded.

2.4 DISTINGUISHING DAY CASE AND NON-DAY CASE EPISODES

The database records the following 'length of stay' options:

- Outpatient
- Day case
- Less than 24 hours
- 1 day
- 2 days
- 3 days
- 4 days
- More than 4 days

All entries apart from 'day case' were categorised as non-day cases. It was not possible to determine if episodes with inpatient stays were originally intended as daycases.

2.5 OUTCOMES REPORTED

The following outcome were reported:

- Effectiveness of the procedure based on patient global impression of improvement (PGI-I)
- Intraoperative and postoperative complication rates
- Prolapse recurrence rates

CHAPTER 3: Results

3.1 NUMBER OF DAY CASE AND NON-DAY CASE EPISODES

There were 9149 posterior repairs and 8074 anterior repairs recorded from 2008 to 2018 *(Table 1)*.

14.3% of posterior repairs were day cases.
18.1% of anterior repairs were day cases.

Table 1: *Number of day cases and non-day cases – n (%)*

	Posterior repair n (%)	Anterior repair n (%)
Day case	775 (14.3)	957 (18.1)
Non-day case	4647(85.7)	4333 (81.9)
Unrecorded	3727	2784
Total	**9149**	**8074**

3.2 TYPE OF ANAESTHESIA

Table 2 shows the type of anaesthesia used during the procedures.

A large proportion of day case and non-day case anterior and posterior repairs were carried out under General Anaesthetic (GA).

- For posterior repairs, 82.6% of day cases and 81.7% non-day cases had GA.
- For anterior repairs, 76.3% of day cases and 77.7% non-day cases had GA.

Local Anaesthetic (LA) only was used in a larger proportion of daycases compared with non-daycases.

- For posterior repairs, 9.1% of day cases and 2.0% non-day cases had LA only.
- For anterior repairs, 16.6% of day cases and 4.3% non-day cases had LA only.

Table 2: *Type of anaesthesia – n (%)*

	Posterior repair		Anterior repair	
	Day case	**Non-day case**	**Day case**	**Non-day case**
Caudal	1(0.1)	0	0	2 (0.05)
GA	607 (82.6)	3741(81.7)	719 (76.3)	3324 (77.7)
GA + Caudal	10(1.3)	76 (1.7)	4 (0.4)	73 (1.7)
GA + Epidural	0	5(0.1)	0	3 (0.07)
GA + Spinal	0	39 (0.9)	1 (0.1)	44 (1.0)
LA	67 (9.1)	93 (2.0)	156 (16.6)	183 (4.3)
LA + Sedation	21 (2.9)	23 (0.5)	21 (2.2)	30 (0.7)
Spinal	29 (3.9)	603 (13.2)	41 (4.4)	619 (14.5)
Total	**735**	**4580**	**942**	**4278**

3.3 FOLLOW-UP AFTER SURGERY

The database records the 1st follow-up after surgery at 4 prespecified intervals: 6 weeks, 3 months, 6 months and 1 year.

- **Posterior repair**

55.1% (n=427) of day cases and 65.6% (n=3047) of non-day cases had follow-up information *(Table 3)*.

- **Anterior repair**

49.1% (n=470) of day cases and 64.0% (n=2774) of non-day cases had follow-up information *(Table 3)*.

Over 95% of all follow-ups occurred at 6 months or less.

Table 3: *1st follow-up interval after surgery – n (%)*

	Posterior repair		Anterior repair	
	Day case	**Non-day case**	**Day case**	**Non-day case**
6 weeks	62 (14.5)	938 (30.8)	105 (14.3)	828 (29.8)
3 months	254 (59.5)	1305 (42.8)	270 (57.4)	1097 (39.5)
6 months	98 (23.0)	718 (23.6)	79 (16.8)	745 (26.9)
12 months	13 (3.0)	86(2.8)	16 (3.4)	104 (3.7)
Total	**427**	**3047**	**470**	**2774**

3.4 PATIENT GLOBAL IMPRESSION OF IMPROVEMENT AFTER SURGERY

The effectiveness of surgery was assessed using patient-reported global impression of improvement (PGI-I). The scale has 7 outcome categories *(Table 4)*.

PGI-I was recorded at variable follow-up intervals. Cases reporting 'Very Much Better' or Much Better' PGI-I were considered cured.

- **Posterior repair**

PGI-I was recorded in 54.3% (n=421) of day cases and 60.5% (2812) of non-day cases.

The cure rate was similar between day cases and non-day cases.
- 90.0% (n=379) of day cases had 'Very Much Better' or 'Much Better' PGI-I.
- 90.7% (n=2550) of non-day cases had 'Very Much Better' or 'Much Better' PGI-I.

- **Anterior repair**

PGI-I was recorded in 47.9% (n=458) of day cases and 58.6% (n=2540) of non-day cases.

The cure rate was similar between day cases and non-day cases.
- 88.2% (n=404) of day cases had 'Very Much Better' or 'Much Better' PGI-I
- 88.1% (n=2237) of non-day cases had 'Very Much Better' or 'Much Better' PGII

Table 4: *PGI-I at variable follow-up intervals – n (%)*

	Posterior repair		Anterior repair	
	Day case	**Non-day case**	**Day case**	**Non-day case**
Very much better	266 (63.2)	1786 (63.5)	300 (65.5)	1587 (62.5)
Much better	113 (26.8)	764 (27.2)	104 (22.7)	650 (25.6)
A little better	28 (6.7)	147 (5.2)	32 (7.0)	193 (7.6)
No change	12 (2.9)	83 (3.0)	16 (3.5)	85 (3.3)
A little worse	1 (0.2)	11 (0.4)	2 (0.4)	12 (0.5)
Much worse	1 (0.2)	9 (0.3)	4 (0.9)	8 (0.3)
Very much worse	0	6 (0.2)	0	5 (0.2)
Total	**421**	**2812**	**458**	**2540**

3.5 SURGICAL COMPLICATIONS

The database records prespecified intraoperative and postoperative complications *(Tables 5 & 6)*.

- **Anterior repair**

The complication rates for day cases and non-day cases were not significantly different *(Table 5)*.

Table 5: *Complications for anterior repairs - % (number of occurrences) [total number of cases]*

	Anterior repair		
	Day case	**Non-day case**	**P value**
Blood loss > 500ml	0 [953]	0.07 (3) [4313]	All not significant
Peri-operative blood transfusion	0 [953]	0.02 (1) [4313]	
Neurological injury	0 [953]	0.02 (1) [4313]	
Vascular injury	0 [953]	0 [4312]	
Bowel injury	0 [953]	0 [4312]	
Urethral injury	0.1 (1) [953]	0.02 (1) [4308]	
Bladder injury	0 [953]	0.1 (6) [4313]	
Ureteric injury	0 [953]	0.02 (1) [4313]	
Perioperative VTE	0 [953]	0.02 (1) [4311]	
Death	0 [953]	0 [4310]	
Return to theatre	0 [534]	0.2 (5) [3021]	
Catheterisation >10 days	1.3 (7) [533]	2.0 (61) [3021]	
Readmission within 30 days	0.8 (4) [529]	1.8 (52) [2951]	
Same site recurrence requiring surgery	0.5 (1) [192]	0.7 (13) [1785]	
Same site recurrence requiring conservative management	1.0 (2) [193]	0.4 (7) [1779]	
New site prolapse	1.0 (2) [193]	0.4 (7) [1779]	

- **Posterior repair**

The rate of readmission within 30 days of surgery was higher for non-day cases (2.8% vs 1.1%, p<0.05) *(Table 6)*.

The rate of prolapse at a new site was higher for day cases (1.7% vs 0.04%, p<0.05) *(Table 6)*.

Table 6: *Complications for posterior repairs - % (number of occurrences) [total number of cases]*

	Posterior repair		
	Day case	**Non-day case**	**P value**
Blood loss > 500ml	0 [768]	0.09 (4) [4621]	NS
Peri-operative blood transfusion	0 [768]	0 [4621]	NS
Neurological injury	0 [775]	0.02 (1) [4621]	
Vascular injury	0 [775]	0.04 (2) [4621]	NS
Bowel injury	0 [768]	0.06 (3) [4620]	NS
Urethral injury	0 [775]	0 [4647]	NS
Bladder injury	0 [768]	0 [4621]	NS
Ureteric injury	0 [768]	0.02 (1) [4621]	NS
Perioperative VTE	0 [768]	0.02 (1) [4621]	NS
Death	0 [768]	0.02 (1) [4621]	NS
Return to theatre	0.2 (1) [470]	0.7 (23) [3255]	NS
Catheterisation >10 days	0.4 (2) [468]	0.7 (24) [3274]	NS
Readmission within 30 days	1.1 (5) [457]	2.8 (89) [3210]	P=0.03
Same site recurrence requiring surgery	0 [175]	0 [2291]	NS
Same site recurrence requiring conservative management	0 [175]	0.09 (2) [2293]	NS
New site prolapse	1.7 (3) [178]	0.04 (1) [2292]	P<0.00001

CHAPTER 4: Limitations of the Audit

1. Use of the BSUG Audit Database is voluntary and open only to BSUG members so not all day case and non-day case anterior and posterior repairs from 2008 to 2018 would have recorded and analysed.

2. Missing data and limited long-term follow-up should be taken into consideration when interpreting the findings of this audit.

3. It was not possible to tell if a non-day case procedure was originally intended as a day case.

    a. As intended day cases would have been converted to non-day cases if an intraoperative complication arose, this would artificially increase the incidence of intraoperative complications in non-day cases.

    b. Postoperative complications rates would be similarly affected if a postoperative complication occurred before an intended day case was discharged (e.g. urinary retention requiring catheterisation and immediate postoperative bleeding requiring a return to theatre).

    Therefore, the incidence of surgical complications for day cases and non-day cases needs to be interpreted with this in mind.

4. The cases intended as day cases and non-day cases may differ with regard to pre-existing comorbidities, size of prolapse and whether it was recurrent. These variables may confound complication rates and cure rates.