

Theatre versus outpatient large loop excisions of the transformation zone: a chart audit of gynaecological practices at the Tweed and Murwillumbah Hospitals

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INTRODUCTION

Large loop excisions of the transformation zone (LLETZ) are procedures that treat pre-cancerous cervical abnormalities. These can occur the operating theatre (OT) or outpatient clinic (OPD), with general (GA) or local anaesthetic (LA). There is no current Australian recommendation for mode of anaesthetic or operative setting, alongside increasing evidence to suggest no significant difference between LA and GA outcomes.

At Tweed and Murwillumbah Hospitals:

- GA LLETZ indications: patient preference, additional gynaecologic procedure, anticipation of a complex LLETZ
- Cost analysis: average inpatient LLETZ \$1674.10 versus average gynae outpatient appointment \$249.
- No published cost analysis in literature

AIMS

- Evaluate if there are significant differences in theatre and OPD LLETZ specimens' quality and post-procedure outcomes of bleeding, infection and pain
- Assess histological outcomes to determine if LLETZ specimen collection methods can be improved.
- Assess patient follow-up practices to ensure post-procedure complications are thoroughly monitored.

METHODS

Review of 439 electronic records from 1st July 2015 to 16th June 2020 was conducted. 196 records were excluded due to additional procedures completed n=297. Complications were screened from a 1-day post-operative phone survey. LLETZ specimen qualities were extracted from histological reports. Statistical analysis was performed using Jamovi. Descriptive statistics were used to summarise the data.

RESULTS

Patient Demographics:

- Indication for LLETZ: pre-treatment HSIL or rarely, persistent/symptomatic LSIL
- Evenly distributed anaesthetic modalities GA (n=144 48.48%) and LA (OT LA n=92 30.98%, OPD n=61 20.54%)
- Similar ages across groups (range 34-43 years)

Specimen Quality: No significant difference in endocervical margin involvement (p=0.442), specimen depth (p=0.57) or fragmentation.

Complications: No significant differences in rates of post-procedure infection (p=0.385), bleeding (p=0.086) and pain and all-cause re-presentation (p=0.403) across all groups.

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	OT GA	OT LA	OPD LA
Depth (mm), mean (SD)	9.26 (3.29)	8.95 (3.10)	9.48 (3.13)
Number of biopsy pieces, median (range)	1 (1-3)	1 (1-5)	1 (1-2)
Endocervical margins involved (n%) χ^2 3.74 (p = 0.442)			
Positive endocervical margin	32 (22.2%)	11 (12.0%)	10 (16.4%)
Negative endocervical margin	109 (75.7%)	80 (87.0%)	51 (83.6%)
Margins unassessed due to diathermal damage	3 (2.1%)	1 (1.1%)	0 (0.0%)

Table 1. LLETZ specimen outcomes stratified by location and anaesthetic

DISCUSSION

Outcomes from our hospitals were comparable to other treatment centres and best practice guidelines.

Areas for clinical improvement:

- Minimising specimen diathermal artefact
- Complete documentation of specimen collection method
- More complete follow-up post-operatively

Recommendations:

- Patients should undergo LA LLETZ procedures unless contraindicated
- Patients who undergo GA LLETZ procedures should have a documented reason for this
- LLETZ specimen collection method (e.g. top-hat) should be documented and oriented if >1 piece is obtained to aid histological analysis
- All day-one, post-procedure questionnaires should be documented to monitor complications more closely