Audit of excisional treatment of cervical dysplasia under the renewed Australian CSP guidelines.

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Background

Cervical screening has been remarkably successful in reducing the incidences and mortality of cervical cancer in Australia. The age standardised incidence rate has decreased from 14 cases per 100,000 females in 1982 to 6.8 cases per 100,000 female in 2013. Over the same period the age standardised mortality rate decreased from 7.7 death to 1.7 deaths per 100,000 (1).

The National Cervical screening program has recently introduced significant change to the way a cervical screening test (CST) are preformed in Australia (2).

The Australian Cervical Cancer Screening program was completely renewed from 1st December 2017. This included adoption of the IFCPC Colposcopy nomenclature within re-written guidelines that also for the first time included a chapter on the Colposcopic diagnosis and treatment of cervical dysplasia.

Objectives

We have audited over 200 excisional treatments from one tertiary public dysplasia service for the year 1st December 2017 to 30th November 2018. This includes analysis of:

- Patient Demographics
- Mode of excision
- Rates of local vs general anaesthesia
- Histology of Biopsy at Colposcopy
- Proportion of 'negative' excisions
- Proportion of invasive disease excision pathology
- Quality of pathological specimen according to epithelial loss and artefact (thermal) at the margins, and number of pieces of cervix at operation

These findings can be compared to national standards and others currently applied elsewhere internationally and stratified by individual clinician.
In addition, suggestions for future improvements to maximise treatment efficiency and minimise short and long-term morbidity will also be made

Methods

This was a retrospective audit of all women referred to the Royal Woman's hospital colposcopy unit between 1/12/2017 to 30/11/2018 with any smear result that underwent surgical management. Using a data base search 293 women were identified as having cervical pathology requiring operative management
Histological results for the patients were obtained from an in hospital electronic database. We collected histology results from, large loop excision of the transformation zone (LEETZ), Loop Electrosurgical Excision Procedure and Cone Biopsy Procedures and analysed our data using an excel spreadsheet.

Results

Patient Demographics

Age	Range	Median	Mean
	24-71	34	37

Mode of Anaesthesia

Mode of Anaesthesia	Total Raw	Total %
General Anaesthesia	177	60.4%
Local Anaesthesia	114	38.9%
Unknown- Not documented	2	0.7%
Total	293	100%

Biopsy Histology at Colposcopy

Histopathology	Total	Total %
Negative	26	8.8%
CIN I	65	22.1%
CIN II	51	17.4%
CIN III	124	42.3%
ACIS or Greater	27	9.2%
Total	293	100%

Procedure Type at Operation

Mode of excision	Total Raw	Total %
LEEP	269	91.8%
Cone Biopsy	24	8.2%
Total	293	100

Proportion of Negative Disease Excisions

Histopathology	Total Raw	Total %
CIN II or Less	142	48.46
CIN III Or Greater	151	51.54
ACIS or Greater	27	9.22
Total	293	100%

Proportion of Invasive Disease Excisions

Histopathology	Total Raw	Total %
CIN I or less	91	31.1%
CIN II or Greater	202	68.9%
Total	293	100%

Quality of Pathological specimen according to epithelial loss and thermal artefact at the margins

	None	Mild	Moderate	Extensive	Unknown	Total
Epithelial loss	60	95	60	20	58	293
Tissue Artefact	81	137	11	6	58	293
Epithelial loss %	20.5%	32.4%	20.5%	6.9%	19.8%	100
Tissue Artefact %	27.6%	46.8%	3.8%	2.0%	19.8%	100

Number of Pieces of Cervix at Operation

Pieces of cervix	Total Raw	Total %
1	274	93.5%
2	16	5.5%
3	2	0.7%
4	0	0%
5	1	0.3%
All procedures	293	100

Discussion

The results reveal some interesting trends in cervical disease progression and management of abnormal cervical screening tests and biopsies at Colposcopy.
These results will provide clinician important local data on the rate of disease progression between biopsy at colposcopy and biopsy at LEETZ or Cone procedure.
These results set the groundwork for follow up results at 6 and 12 months post operative resection of the diseased section of the cervix in future audits, which will subsequently follow.

References

1.Australia C. Cervical Cancer Statistics. 02/09/2019 [cited 2021/12/2021]; Available from (https://www.aihw.gov.au/reports/cancer-screening/analysis-of-cervical-cancer-and-abnormality/summary)
2.Australian Government Department of Health , [cited 2021/12/2021]; Available from (https://www.health.gov.au/initiatives-and-programs/national-cervical-screening-program)