

# An Audit of Large Loop Excision of the Transformation Zone Procedures Performed in One Year at an Australian Hospital

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## Introduction

Large loop excision of the transformation zone (LLETZ) is a common procedure performed by gynaecologists to remove high grade cervical dysplasia before it develops into cancer. As per the National Cervical Screening Program Guidelines, "Treatment should be reserved for women with histologically confirmed HSIL (CIN2/3) or AIS, except for women requiring diagnostic excisional biopsy" (Recommendation 7.10) [1]. Thus, it can be inferred that the majority of LLETZ specimens should return as at least high grade squamous intraepithelial lesions (HSIL) to justify the procedure.

#### Aims

To collate histology of LLETZ specimens and identify the proportion of potentially clinically unnecessary procedures, defined as those less dysplastic than HSIL *i.e.* low grade squamous intraepithelial lesions (LSIL) or benign. To examine the indications for these procedures and determine whether they could have been avoided.

## Methods

Data on LLETZ procedures performed from March 2020 to March 2021 at Gosford Hospital were collected (n=98). When histology showed LSIL or less, they were compared against indication for procedure.



### Discussion

The high rate of discordance between biopsy histology and LLETZ specimen histology in this study is noteworthy. It may represent true discordance, for example if the biopsy encompassed the entire area of HSIL, or, there may be a component of diagnostic error. It may be worth histological re-examination in a further study to investigate whether any revisions are warranted, and if so, whether a change in interpretative practice could reduce unnecessary procedures in future. A previous quality assurance project demonstrated only 38% confirmation of HSIL diagnoses upon re-review [2].

LLETZ is not without risk. Obstetrically, risk of preterm birth, premature rupture of membranes and low birth weight are all significantly increased after treatment [3-4]. The risk of inadequate colposcopy is also greater post-LLETZ, due to a not fully visible squamocolumnar junction and/or cervical stenosis, making monitoring for recurrence difficult or impossible, and increasing chances of requiring a second procedure [5-6]. Additionally, valuable resources are required to perform a LLETZ, particularly staff time and specialised equipment. Hence, it is important to treat only when indicated. Clinicians should consider ongoing surveillance rather than performing a LLETZ in appropriate circumstances. However, risk of procedure must of course be balanced against risk of developing HSIL and cancer.

#### References

 Cancer Council Australia Cervical Cancer Screening Guidelines Working Party. National Cervical Screening Program: Guidelines for the management of screen-detected abnormalities, screening in specific populations and investigation of abnormal vaginal bleeding. Sydney: Cancer Council Australia. Available from: https://wiki.cancer.org.au/australia/Guidelines:Cervical\_cancer/Screening 2. Chen EY, Tran A, Raho CJ, Birch CM, Crum CP, Hirsch MS. Histological 'progression' from low (LSIL) to high (HSIL) squamous intraepithelial lesion is an uncommon event and an indication for quality assurance review. Modern Pathology. 2010 Aug;23(8):1045-51.
Kyrgiou M, Athanasiou A, Paraskevaidi M, Mitra A, Kalliala I, Martin-Hirsch P, Arbyn M, Bennett P, Paraskevaidis E. Adverse obstetric outcomes after local treatment for cervical preinvasive and early invasive disease according to cone depth: systematic review and meta-analysis. bmj. 2016 Jul 28;354.
Zhuang H, Hong S, Zheng L, Zhang L, Zhuang X, Wei H, Yang Y. Effects of cervical conisation on programey outcome: a meta-analysis, lowers, 2010 Aug;22(1):74, 81

pregnancy outcome: a meta-analysis. Journal of Obstetrics and Gynaecology. 2019 Jan 2;39(1):74-81. 5. Carcopino X, Mancini J, Gondry J, Chevreau J, Lamblin G, Atallah A, Lavoue V, Caradec C, Baldauf JJ, Bryand A, Henno S. Risk factors of inadequate colposcopy after large loop excision of the transformation zone: a prospective cohort study. Journal of lower genital tract disease. 2018 Jan 1;22(1):31-7. 6. Chevreau J, Carcopino X, Foulon A, Preaubert L, Lanta-Delmas S, Sergent F, Gondry J. Risk factors for unsatisfactory colposcopy after large loop excision of the transformation zone: The results of a fouryear multicenter prospective study. European Journal of Obstetrics & Gynecology and Reproductive Biology. 2019 Sep 1;240:156-60.