

# LLETZ during lactation causing cervical stenosis and haematometra

S Scheck <sup>a</sup>, L Searle <sup>a,b</sup>, F Langdana <sup>a,b</sup>, N Bedford <sup>a</sup>

a) Wellington Regional Hospital, Capital and Coast District Health Board, Department of Obstetrics and Gynaecology, Wellington, New Zealand  
b) University of Otago, Department of Obstetrics and Gynaecology, School of Medicine, Wellington, New Zealand

Corresponding author: Simon Scheck [simon.scheck@ccdhb.org.nz](mailto:simon.scheck@ccdhb.org.nz)

## Background

- This is the fifth case report of complete cervical stenosis and haematometra following cervical procedures during lactation (1–4)
- LLETZ procedures are not well studied in lactation
- Oestrogen receptors are found throughout the cervix (6) and influenced by exogenous and endogenous hormone levels (5)
- Oestrogen affects leukocyte activity in the cervix (6) and low oestrogen levels induce atrophic changes on histological specimens (both in menopause and exogenous administration) (7)

## Case

Figure 1



Transvaginal USS showing haematometra

- A 41 year old G3P1 woman had a LLETZ procedure performed at 4 months post partum for CIN2 on cervical biopsy
- The LLETZ specimen was found to contain CIN3 on histological review
- At 10 months post partum, presented to GP with cramping abdominal pain
- Remained amenorrhoeic since delivery, breast fed exclusively until 7 months post partum
- TVUSS reported a 43mm x 33mm x 40mm haematometra (Figure 1) – referred to gynaecology
- Complete cervical stenosis on speculum
- Recanalisation and dilatation of cervix under GA
- Good recovery with subsequent normal menses

## Conclusion

- Healing and regeneration of the cervix appears to be altered by hypoestrogenic states
- This is of particular significance in lactational amenorrhoea, where cervical stenosis may lead to haematometra at the time menses recommence
- We present the fifth documented case of complete cervical stenosis following excisional biopsy of the cervix during lactational amenorrhoea
- Similar principles may possibly apply to women in other temporary hypoestrogenic states, such as those with ovulation suppression due to progestogen therapy
- Topical Oestrogen therapy may be of benefit

## References

1. Hirsch, P. J. & Williams, C. A. V. Cervical stenosis after cone biopsy during post-pregnancy amenorrhoea. *BJOG An Int. J. Obstet. Gynaecol.* **96**, 123 (1989).
2. Moncrieff, D. & Steel, S. A. Cervical stenosis after cone biopsy during post-pregnancy amenorrhoea. *BJOG An Int. J. Obstet. Gynaecol.* **95**, 628–629 (1988).
3. Hirai, K. *et al.* Occlusion of the external cervical os after conization in a postpuerperal amenorrhoeic woman. *Arch. Gynecol. Obstet.* **270**, 64–66 (2004).
4. Gyang, A. & Berger, N. Successful Pregnancy Following Treatment of Cervical Stenosis from a Previous Cervical Loop Excision. *J. Gynecol. Surg.* **28**, 23–25 (2012).
5. Sanborn, B. M., Kuo, H. S. & Held, B. Estrogen and progesterone binding site concentrations in human endometrium and cervix throughout the menstrual cycle and in tissue from women taking oral contraceptives. *J. Steroid Biochem.* **9**, 951–955 (1978).
6. Stygar, D. *et al.* Co-localization of oestrogen receptor beta and leukocyte markers in the human cervix. *Mol. Hum. Reprod.* **7**, 881–886 (2001).
7. Megevand, E. *et al.* The influence of hormonal status on excision margins after large loop excision of the transformation zone (LLETZ). *Eur. J. Gynaecol. Oncol.* **17**, 223–227 (1996).