Do women with glandular abnormalities require colposcopy follow-up?

C.A. Errington[1], *RGN BA*; D. Mansour[2], *FRCOG FFSRH*

[1]Colposcopy Department, Royal Victoria Infirmary, Newcastle upon Tyne;
[2]Contraception and Sexual Health Services, Newcastle General Hospital, Newcastle upon Tyne (U.K.)

Summary

Purpose: To determine whether cervical glandular abnormalities can be safely followed up by community cytology. *Methods:* A retrospective database review was conducted identifying women with a histological report of cervical glandular abnormalities over a three-year period. *Results:* Fifty women were found to have a glandular abnormality diagnosed histologically. Twenty were initially referred for colposcopy with cytological glandular abnormalities. Thirty women with cytological squamous abnormalities were later found to have cervical glandular intraepithelial neoplasia (CGIN) at histological assessment. Two women had invasive adenocarcinoma and all others with endocervical dyskaryosis or CGIN were treated using large loop excision of the transformation zone (LLETZ). At follow-up 43 women had negative cytology, one woman defaulted further appointments, one had moved out of the area, seven were successfully treated by a repeat LLETZ following incomplete excision of CGIN at the endocervix, and five had negative cytology in the community. Three women continue to have cytological/histological abnormalities with one subsequently having a hysterectomy. *Conclusion:* Women with endocervical dyskaryosis or CGIN should be treated by LLETZ. Provided LLETZ is repeated in cases of incomplete endocervical CGIN excision cytological follow-up can take place in the community.

Key words: Endocervical dyskaryosis; Cervical glandular intraepithelial neoplasia; Large loop excision of the transformation zone; Cytology.

Introduction

The current National Health Service Cervical Screening Programme (NHSCSP) guidelines 'Colposcopy and Programme Management [1] suggest that follow-up for women treated for glandular abnormalities should be 'cytology alone' with samples 'taken by appropriately trained staff' in treatment centres. This is seen as the best practice. The guidance then states that an alternative arrangement could include follow-up cytology 'undertaken in the primary care sector'.

In Newcastle upon Tyne the colposcopy service sees all women post treatment for glandular abnormalities, undertaking a colposcopic examination and cervical smear. However we wished to consider community cytological follow-up as it was felt to be a safe option particularly since a recent local audit suggested that liquid-based cytology (LBC) when compared to conventional cytology led to a substantial increase in the positive predictive value of cytology to predict invasive and pre-invasive disease of the cervix (unpublished data).

Newcastle was part of the pilot project assessing LBC in three cytology screening laboratories across England [2]. The results of this study led the National Institute for Health and Clinical Effectiveness in 2003 to recommend the roll out of LBC across England and Wales as the primary method for collecting and preparing cervical cytological specimens for the cervical screening programme [3]. Since that time Newcastle continues to use the Surepath LBC system. Its colposcopy service, based at the Royal Victoria Infirmary, sees almost 1,300 new patients a year of which approximately 0.9% are found to have glandular abnormalities. The aim of this audit was to confirm that women with successfully treated cervical glandular abnormalities can be followed-up by community-based cytology.

Methods

The Colposcopy Department of the Royal Victoria Infirmary, Newcastle upon Tyne has a fully computerised record database holding clinical information on all women attending the service including details of their referral cervical cytology and subsequent histological/cytological reports. A retrospective database review was conducted interrogating data from 1 January 2004 to 31 December 2006. Women with a histological and/or a cytological report suggesting a cervical glandular abnormality were identified.

Results

During the three-year investigation period 50 women were identified as having either a cervical cytology result and/or histological report indicating that a glandular abnormality had been detected. A total of 20 women (0.5%) had endocervical dyskaryosis out of 4,037 women referred with a cytological abnormality to the department during this three-year period. A further 30 women were found to have glandular intraepithelial neoplasia (CGIN) on histological sampling. None of these women were later found to have any endometrial pathology.

Seventeen of the 20 women with endocervical dyskaryosis at referral were treated by LLETZ at their

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first colposcopy appointment. Six women were found to have CGIN, eight had cervical intraepithelial neoplasia grade three (CIN 3) and one woman had epithelial changes of uncertain significance (ECUS). Subsequent cytological smears for 13 women showed no abnormality. One defaulted follow up. Two women were found to have invasive adenocarcinoma and were referred to the Northern Gynaecology Oncology Centre at Gateshead.

Three of the 20 women with endocervical dyskaryosis initially had cervical punch biopsies however all had subsequent LLETZ with two demonstrating CGIN and one viral change. Follow-up cervical cytology was negative in all three.

Five of the 20 women had a second LLETZ because of incomplete CGIN excision of the endocervical margin in three, CGIN incomplete at the ectocervical margin in one and recurrence of CIN 2 in the final woman. Again follow-up cytology in all five was negative.

A total of 30 women referred with cytological squamous abnormalities were found to have CGIN on histology. Twelve had been referred with severe squamous dyskaryosis, one severe squamous dyskaryosis - query invasion, nine women moderate squamous dyskaryosis, one mild squamous dyskaryosis, four borderline nuclear changes and three endocervical atypia. Twenty-one of these women had a LLETZ at their first colposcopy visit and all showed CGIN histologically. Follow-up cytology was normal in 18 women, one is still under colposcopic review and one had a hysterectomy. One defaulted further clinic appointments.

Nine women initially had punch biopsies which revealed CGIN. All had subsequent LLETZ with seven demonstrating CGIN, one CIN 3 and one CIN 1. Follow-up cytology was negative in eight women and one is still under review.

Of these 30 women referred with cytological squamous abnormalities but were later found to have CGIN four had a repeat LLETZ and one underwent a hysterectomy for incomplete excision of CGIN at the endocervical margin. All had subsequent negative cervical smears.

Discussion

This audit shows that the colposcopy service in Newcastle follows the standards set by the National Health Service Cervical Screening Programme (NHSCSP) [4]. All women referred with cytology showing endocervical dyskaryosis underwent LLETZ because punch biopsy is known to be unreliable in the management of high-grade cytological glandular abnormality [4]. However a further LLETZ was only performed if CGIN remained at the endocervical margin. Colposcopic and cytological follow-up suggests that this is a successful approach and avoids unnecessary repeat cervical treatments which have a known morbidity [5].

There was a high correlation between cytological referral showing endocervical dyskaryosis and the finding of high-grade glandular and high-grade squamous changes. In these 20 women eight had CGIN, eight had CIN 3, two women had invasive adenocarcinoma of the cervix, one had CIN 1 and another woman had ECUS. These findings are very similar to previously published work highlighting the importance of adequate investigation and treatment for women found to have glandular abnormalities [5].

Many women find repeated visits to a colposcopy unit stressful with almost one-third of women still having a significant fear of cancer two years after their initial referral following an 'abnormal smear' [7]. Being able to be followed-up by their family doctor or nurse for cervical cytology may help elevate these concerns and decrease those who default review appointments. From this audit community cytological surveillance appears safe as long as women are informed about the nature of the glandular abnormality detected and the need for repeated follow-up cytology testing.

Conclusion

The NHSCSP guidelines state that a further LLETZ is required if there is incomplete excision of CGIN at the ectocervical and/or endocervical margins. This audit demonstrates that women with endocervical dyskaryosis or CGIN should be treated by LLETZ. As long as the NHSCSP guidelines are followed cytological follow-up in the community is safe. The general practitioner or nurse practitioner should ensure that endocervical cells are sampled when the cervical smear is performed.

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Address reprint requests to:
C.A. ERRINGTON, M.D.
Colposcopy Department
Royal Victoria Infirmary
Queen Victoria Road
Newcastle upon Tyne NE1 4LP (U.K.)
e-mail carole.errington@nuth.nhs.uk