Problems of colposcopy

Advocates of immediate colposcopy usually cite the early diagnosis of microinvasive cancer. They forget that colposcopists have a poor track record at recognising early invasive changes.¹¹ A major disadvantage of early colposcopy referral has been the see and treat policy for managing women with any degree of cytological abnormality. This has been made possible by the widespread introduction of large loop excision of the transformation zone. In one of the largest reported series looking at the procedure 27% of the women treated had no abnormality or koilocytic atypia.¹² If we include those women with grade I cervical intraepithelial neoplasia, which has a low risk of progression to invasive disease, the overtreatment rate rises to 45%. Large loop excision is considered by many to be associated with minimal morbidity, but this discounts psychosexual morbidity, secondary haemorrhage, vaginal discharge, and a 1.3% risk of cervical stenosis after treatment. This is of particular concern to women who have not completed or started childbearing. The whole situation concerning colposcopic assessment is further complicated by the absence of quality control.

Currently we have guidelines for clinical practice and programme management for the cervical screening programme.¹ Inroads are being made into the incidence of and mortality from cervical cancer. Scarce resources are best spent on reaching non-attenders as they represent a particularly high risk group rather than on women at low risk of invasive disease (one mildly abnormal cervical smear), particularly as early colposcopy has no effect on this risk. Once other

loopholes in the screening programme have been addressed the subject of referral for mild cytological abnormalities could be revisited. We must not use screening to turn people into patients and health into disease. The interests of the women are best served by a balanced approach that takes into account not only the most satisfactory clinical management but also the most effective use of resources in terms of cost and staff.

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Immediate referral to colposcopy is safer

W P Soutter

Cervical cytological screening is effective in reducing the incidence of and mortality from cervical cancer.¹ However, no screening test is perfect, and invasive squamous cancers do occur in screened women.² As coverage of the population increases, management of mild cytological abnormalities will become more important. Currently, about 2% of all smears in England and Wales are reported to show mild dyskaryosis, although it varies among regions.³ In 1987, the intercollegiate working party on cervical cytology screening recommended immediate colposcopy for all women with dyskaryosis, where resources permitted,⁴ but others have subsequently suggested various formulas for cytological surveillance.

A retrospective study in the United Kingdom in 1986 showed that 48% of women with mild dyskaryosis had cervical intraepithelial neoplasia grade II or III.⁵ The rate of abnormality did not depend on the number of mildly dyskaryotic smears before referral. This high prevalence of grade II or III neoplasia has been confirmed by prospective studies.^{6,7} Some people have suggested that most of these lesions are small and inferred that the risk of progression to invasive disease will be less than with larger lesions.⁷ But there are no data to support that contention.

Surveillance is inadequate

Cytological surveillance is often said to allow most women with mild dyskaryosis to avoid colposcopy. However, after two years only a quarter will have an abnormal smear result.^{8,9} An analysis of all the recent studies of cytological follow up in the United Kingdom showed that the cumulative referral rate after about

four years ranged from 14% to 64%.⁸ The two studies with the lowest referral rates had the highest rates of invasion.

One of the main measures of the success of cervical screening is the incidence of invasive cancer. In one retrospective study of cytological surveillance that has been widely quoted as reassurance of the safety of this approach, 10 of the 1781 patients developed invasive cancer.⁹ Excluding the three carcinomas that occurred in the 434 women who were lost to follow up, this represents an annual incidence of invasive cancer of

Commentary: immediate colposcopy is not justified

Cervical screening reduces the incidence of cervical cancer. Optimising the take up rate for cervical screening and the reliability of laboratory analysis is therefore an extremely worthwhile aim. In contrast, the advantages of immediate colposcopy in those with mild dyskaryosis are unclear. The bottom line is that no prospective information from randomised trials is available. On the basis of the information presented here it seems that immediate colposcopy cannot be justified in terms of clinical need or cost. A repeat cervical smear four to six months later with colposcopy if the result is still abnormal is a better way forward, with resources put primarily into optimising the efficiency of cervical screening.—PETER C RUBIN, professor of therapeutics, University of Nottingham

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143 per 100 000 women⁸—hardly reassuring. A similar study in north London found an annual incidence of invasive disease of 420 per 100 000, a rate 60 times greater than the age adjusted background rate.¹⁰ In the large British studies of cytological surveillance of women with mild cytological abnormalities the annual incidence of invasive cancer ranged from 143 to 420 per 100 000.⁸ The average rate of all six studies was 208 per 100 000.

The women in these studies were mainly aged 15-34 years. They had a 16-47 times greater incidence of invasive disease than women of the same age in the general population, in whom the incidence of invasive cancer was 9 per 100 000 in England and Wales in 1985. These data do not include cancers that may have occurred in women lost to follow up. Given that all of these women had been screened and that 80% of invasive cancers at that time occurred in women who had never had a smear, the real increased risk is likely to be even greater.

A recent decision analysis of this problem concluded that repeating the smear would be almost as effective as referral to colposcopy in reducing the rate of invasive cancer.¹¹ However, the cancer risks were calculated in a very indirect way that underestimates the rate in women followed cytologically. Furthermore, prevalence data rather than incidence rates were used in the calculations. Substitution of five year cumulative incidences for prevalences in their calculations, suggests that immediate referral to colposcopy would result in a 54-84% reduction in the risk of invasion.⁸

Immediate or deferred colposcopy?

Because three quarters of women with mild dyskaryosis will eventually need colposcopy, the choice for most is immediate colposcopy or deferred colposcopy with the risk that a quarter may be lost to follow up.^{6a} The objections to immediate referral to colposcopy are the cost, lack of resources, and the psychological impact on women. One comparison of the cost of colposcopy with that of multiple repeated smears has suggested that immediate colposcopy would be cheaper.¹¹ In my experience many women with mildly abnormal smears ask for colposcopy even when cytological surveillance has been recommended. Colposcopy does induce a great deal of anxiety but this can be reduced substantially by explanatory leaflets

sent out with the appointment.¹² I do not know of any published study comparing the levels of anxiety in women being followed cytologically with those attending for immediate colposcopy. This obviously requires investigation.

Conclusion

Women with mild dyskaryosis often have cervical intraepithelial neoplasia grade II or III. If followed cytologically most need colposcopy eventually, many are lost to follow up, and even those who return for all their smear tests are at high risk of developing invasive cancer. Though there has been no prospective randomised comparison of cytological follow up with immediate colposcopy, it seems prudent to refer this high risk group of women for colposcopy after the first abnormal smear. Many will have no abnormality, will not require biopsy, and may be reassured quickly and returned to the screening programme. Those who do have abnormalities can be treated effectively in the outpatient clinic with only mild discomfort and little or no risk to their fertility or fecundity.

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A PATIENT WHO CHANGED MY PRACTICE

Tired all the time

During a busy morning surgery a 26 year old woman presented with tiredness, lethargy, and myalgia which she dated from a sore throat a month before. She looked well and after a brief discussion I suggested that she probably had some kind of post viral syndrome. I am not sure what prompted me to do some blood tests. When I started in general practice I felt paralysed by patients complaining of TATT (tired all the time) and my trainer advised me that, among other strategies, a blood test often helps both doctor and patient. Perhaps I sensed that she wanted more reassurance and I wanted to be seen to be taking her seriously.

The following morning a biochemistry senior registrar telephoned with the results; sodium 122 mmol/l, potassium 1.4 mmol/l, chloride 64 mmol/l, bicarbonate 42 mmol/l, and urea 4.6 mmol/l. She had a profound hypokalaemic, hypochloraemic alkalosis. The biochemist steered me to the realisation that there was only one possible explanation, that of chronic vomiting. Laxative abuse would not cause this degree of hypochloraemia or alkalosis, and the rare renal tubular acidosis, while causing low potassium concentration, obviously causes acidosis. The low potassium concentration had been exaggerated by the

influx of potassium into the cells to replace missing hydrogen ions.

Armed with this unusually precise scientific analysis, I set about finding the patient before she dropped dead in asystole. I finally contacted her at work and she arrived the following day.

Her secret was finally out. Since the age of 14 she had been vomiting daily to control her weight. Apparently she had been successful as she looked slim and healthy and had no obvious signs of physical or psychiatric illness. She had a good secretarial job and a steady boyfriend.

Her biochemistry was corrected after a few days in hospital but her bulimia will take longer. I wonder what would have happened if I hadn't checked her electrolytes?

What have I learnt? That eating disorders are common in young women, as high as 10%; that you can deduce a lot from electrolyte results; and that profound electrolyte disturbance can be well tolerated if the onset is insidious and slow. Perhaps most important of all I have learnt to take patients seriously even when they complain of TATT.—GILLIAN DALE, general practice trainee in London, and HUGH REYBURN, general practitioner