Value of colposcopy in genitourinary departments

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SUMMARY During 18 months 237 colposcopies were performed on 227 patients in the department of genitourinary medicine, Sheffield. Histological evidence of cervical intraepithelial neoplasia was found in 118 patients (52%), of whom 104 (88%) were aged under 35, 93 (79%) under 30, and 64 (54%) under 25. Most were treated with local destructive treatment, only five (4%) requiring cone biopsy.

Colposcopy in a genitourinary department has an important part to play in detecting cervical intraepithelial neoplasia, particularly in younger women. Early diagnosis may often facilitate using local destructive treatment, thereby reducing the numbers of patients needing cone biopsy.

The numbers of cervical cytology smears being reported as dyskaryotic are increasing, particularly in younger women.¹ Substantial evidence now links cervical intraepithelial neoplasia (CIN) and infection with human papilloma virus (HPV).^{2,3} Numbers of patients presenting to genitourinary clinics with HPV infections in recent years are also increasing rapidly,³ and the increase in our clinic in 1974 to 1984 was threefold. It is not surprising therefore that cervical cytology smears taken in genitourinary clinics show a high percentage of dyskaryosis.^{4,5} Only two thirds of women in the UK with an abnormal smear can be offered colposcopy, and it has been recommended that more centres should offer such a facility.⁶ A colposcopy service in genitourinary departments therefore seems to be a necessity.

We report the results of a colposcopy service in our clinic during 18 months.

Patients and methods

The data concern patients attending for colposcopy in January 1985 to June 1986. All patients had had a previous abnormal cervical cytology smear taken in our department. Our policy for cervical cytology screening is to perform yearly smears if women have past or present genital warts or genital herpes, or are known to have been sexual contacts of men with genital warts. Other patients undergo cervical

cytology if it has not been performed elsewhere within the previous three years.

Colposcopy was arranged if cervical cytology showed moderate dyskaryosis or worse. If mild dyskaryosis was reported, repeat cytology at six months was arranged; if the result was again abnormal colposcopy was undertaken. If the cervix looked indicative of malignancy, despite normal cytology results, colposcopy was also arranged. (This accords closely with recently published guidelines for managing women with abnormal cervical cytology.⁷

At the time of colposcopy, a repeat cervical cytology smear and direct punch biopsy specimen were taken from any abnormal area. Patients with histologically confirmed CIN were referred to the local gynaecology colposcopy and laser clinic. Follow up after treatment was then continued there. A close working relation exists between our department and the colposcopy and laser clinic. One operator (DH) and a gynaecology consultant colleague operate that service. Both departments share the same cytology and histology service.

Patients with biopsy specimens suggesting wart virus infection were either treated with cryotherapy of the affected areas or were left untreated. All were followed up by us at six months with cytology or colposcopy, or both, and biopsy when indicated, and further follow up was undertaken when appropriate.

Results

In the 18 month period 237 colposcopies were performed on 227 patients. The mean age was 24.8 years (range 15-57). Table 1 shows age distribution against cervical biopsy findings. In patients who had two

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Table 1 Age distribution against cervical biopsy result

Age	No	Cervical biopsy results					
		Normal	Inflammatory	Warty	CIN 1	CIN 2	CIN 3
15-19	41	9	2	22		4	4
20-24	102	15	5	26	4	30	22
25-29	42	2	5	6	1	13	15
30-34	22	4		7	1	2	8
35-39	7	1			1	2	3
40-44	9	4				4	1
Over 45	4		1			2	1
Total	227	35	13	61	7	57	54

CIN = cervical intraepithelial neoplasia.

Table 2 Correlation of cytology results with biopsy findings

Cytology	No	Histology				
		Normal or inflammatory	Warty	CIN 1	CIN 2	CIN 3
Normal	4	4				
Warty changes	18	5	11	1	1	
Mild dyskaryosis	40	7	17	5	10	1
Moderate dyskaryosis	128	28	33	1	42	24
Severe dyskaryosis	37	4			4	29
Total	227	48	61	7	57	54

CIN = cervical intraepithelial neoplasia.

colposcopies performed, the worst histological diagnosis was used. Of 118 patients (52%) with cervical biopsies showing CIN, 104 (88%) were aged under 35, 93 (79%) under 30, and 64 (54%) under 25.

Table 2 correlates cervical cytology results that initiated colposcopy with the cervical biopsy results in the 227 women. When a report was imprecise (for example, showing mild dyskaryosis with warty features) the worst grade was used. Compatible results were found in 91 cases (40%), and acceptable correlation (within one grade) was present in 148 cases (62%). Some discrepancy is inevitable because of the subjectivity of both histological and cytological gradings; especially at the mild end of the range and when features of wart virus infection are combined with

CIN. Some lesions regressed between the initiating smear and colposcopy.

Table 3 shows the treatments given to patients with abnormal biopsy findings. The patients with CIN were referred to the gynaecology colposcopy and laser clinic. Five required cone biopsy because the disease extended into the cervical canal. One patient underwent hysterectomy because of other unrelated gynaecological problems. Of the three patients with CIN who received no treatment, two had no evidence of disease on examination just before laser treatment (possibly because the lesion had been removed at biopsy or because the disease had regressed naturally) and one defaulted from all treatment appointments.

Patients with cervical biopsies showing wart virus

Table 3 Treatment regimens for 179 patients with abnormal biopsy findings

Histology finding	No	Treatment					
		None	Cryotherapy	Diathermy	Laser	Cone biopsy	Hysterectomy
Warty	61	13	47		1		
CIN 1	7		4		3		
CIN 2	57	1	1	2	52	1	
CIN 3	54	2			47	4	1
Total	179	16	52	2	103	5	1

CIN = cervical intraepithelial neoplasia.

infection were either treated with cryotherapy or observed. Six month follow up of 24 patients receiving cryotherapy gave negative results in 19 and persistent evidence of wart virus infection in five. Of six patients receiving no treatment, five gave negative results at six month follow up and one had persistent evidence of wart virus infection. The other 31 patients with initial biopsies showing wart virus infection were still awaiting their six month follow up at the time of writing.

Discussion

Our results show that we are identifying young women with a potentially progressive, yet treatable, serious disease. Over half the 118 with CIN were aged under 25. The present DHSS cervical screening recommendations mean that these patients may not have had cervical cytology performed elsewhere for 10 or more years. Because these patients were diagnosed at an early age only five (4%) (aged 24, 31, 32, 34, and 40) required cone biopsy. All others received local ablative treatment.

Singer *et al* also looked at a young population, but only 22% of their patients were aged under 25. By contrast 11% of their patients needed cone biopsy. The substantial advantage to both patient and health service of early diagnosis requiring only local ablative treatment was described well.⁸

Biopsies showing CIN were found in 118 patients, who were referred to the gynaecology clinic. We are probably unique in our relation with this clinic in having one operator working in both departments, but other genitourinary departments could develop an arrangement with their gynaecological colleagues for referring patients with CIN. We follow up all other patients. In this respect we remove workload from the gynaecology clinic by filtering out patients with no cervical pathology and patients with wart virus infection. This allows the gynaecologists to reduce waiting lists and give more time to seeing general practitioner referrals and treating patients with CIN. The diagnosis of patients with cervical wart virus infection identifies a group at high risk of future development of premalignant disease. Regular follow up will therefore allow earlier detection of CIN.

A further advantage of performing colposcopies in our department is the continuity of care. This is especially beneficial for patients who may find colposcopy a frightening prospect. If laser treatment is needed, and referral elsewhere is necessary, our patients may be reassured to know that the referring doctor may continue to treat them.

Our present practice of following up patients with mild dyskaryosis at six months by repeat cytology probably now needs reviewing. Two papers have

highlighted the poor correlation between mild dyskaryosis and CIN 1, with many patients having evidence of CIN 2 or 3.^{9,10} (Indeed, we too found poor correlation between mild dyskaryosis and histology findings). Campion *et al* also found that two consecutive negative cervical smears do not accurately predict regression of disease, which can only be confirmed accurately by colposcopy.¹⁰ It therefore seems that all patients with mild dyskaryosis should undergo colposcopy.

The recommendations made by the Board of Science and Education suggest that screening should start before the age of 35 and be repeated every three years or fewer.¹¹ Our results and those of Singer *et al* certainly support the need for screening patients before they are 35.⁸

A study by Hicks and Bushell shows that several genitourinary doctors are either using a colposcope or are interested in training in colposcopy.¹² From our experience we think this will be greatly beneficial in detecting and treating CIN, especially in younger women, and also will identify patients who are at high risk of future development of CIN.

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