Preliminary Experience with a Cervical Pathology Clinic in a Military Hospital

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SUMMARY: The initial experience gained from setting up a cervical pathology clinic is described. The demand for and cost effectiveness of the clinic are examined. Proposals are made for the future development of a colposcopy service for the Army at home and abroad.

Introduction

Although gynaecologists in the UK have been relatively slow to adopt the colposcope as a diagnostic and therapeutic aid there is now an increasing appreciation of its value. Patients throughout the whole of mainland UK now have access to a colposcopy service and the development of this service has lead in recent years to an increasingly conservative approach to the management of cervical dysplasia. Military gynaecologists have not been slow to appreciate the importance of the new approach, although this has usually meant that colposcopy has been performed using a borrowed operating microscope. To our knowledge, this is the first attempt to set up a separate cervical pathology clinic within a Military Hospital gynaecological department. At the beginning of 1984 we could only guess at the likely caseload and whether the extra effort involved would be justified. The lessons learned in the first full year of operation will help us to plan an adequate service for the future.

Selection of Patients

The concept underlying selection of patients was that colposcopy is indicated following one abnormal cytology report. The categories of patient eligible for the cervical pathology clinic were therefore as follows:

a. All patients with reported abnormalities on cervical cytology.
b. Patients referred for colposcopic review following diagnosis and treatment elsewhere.
c. Patients with gross lesions on the cervix despite normal cytology.
d. Follow up generated by this clinic.

Patients are referred both by GPs and from within the department of gynaecology.

Organisation of the Clinic

A maximum of two new patients was seen at each clinic. This apparently small number was dictated by the number of complete sets of colposcopy instruments available. Nevertheless it was sufficient to cope with the demand throughout the year. A full history was taken and routine gynaecological examination made. Cervical cytology was repeated if applicable. When appropriate, colposcopy was performed and biopsy taken.

Close co-operation with the histopathologist ensured that it was possible to review each patient the following week with the result of the histology available. At this follow up visit, specific treatment was discussed and organised.

If cone biopsy was required it was performed within the next two weeks unless the patient requested a delay. By ensuring a rapid passage through all stages of the diagnostic process to early treatment, the mental anguish associated with this particular clinical problem was reduced to a minimum.

Management Protocol

The outline management protocol is shown at Fig 1. Strict adherence to a protocol is essential in order to tailor treatment to individual needs. One aim of the clinic was to reduce the number of cone biopsies performed in young women but where colposcopy is indecisive or inadequate, conisation is mandatory.

The terminology of cervical intra-epithelial neoplasia (CIN) is used throughout because it allows accurate correlation between colposcopic and histological findings. Broadly the terms CIN I, II and III correspond to the previously used mild, moderate and severe dysplasia. The differentiation between CIN III and
carcinoma-in-situ (CIS) is often difficult and is of no practical relevance to the management.

The treatment modalities available to us were:

a. Cryocautery
b. Low temperature coagulation
c. Electrocautery
d. Conisation
e. Vaginal hysterectomy
f. Laser vaporisation (performed elsewhere)

Cryocautery and low temperature coagulation were not considered suitable for lesions other than CIN I because of the impossibility of applying these methods under direct vision and because they cannot be relied upon to destroy cells to the required depth of 6 mm. This is essential because the abnormal epithelium can extend into the depths of cervical glands.

Where electrocautery was used to treat CIN II lesions, ball diathermy was used to achieve tissue destruction down to 6mm. The operation was always performed by the doctor who had performed the colposcopy after reference, in theatre, to the colposcopy notes. In this way it was hoped to ensure destruction of the whole abnormal area.

Cone biopsy was reserved for cases of CIN III or those where colposcopy was inadequate - usually because of inability to identify the upper limit of the transitional zone. All the cone biopsies performed were therefore considered 'curative' with the removal of a large amount of cervical tissue. No small or 'diagnostic' cone biopsies were performed. One case of CIN III in a young woman who desired more children was referred to another centre for laser therapy.

Although our philosophy was to treat all CIN lesions conservatively, if the patient herself requested hysterectomy, this was agreed. Where hysterectomy was performed, the vaginal route was used so that it was possible to ensure a wide margin between the vaginal incision and the outer limit of the transitional zone as identified at colposcopy.

**Results**

Eighty four consultations took place during the year, including 51 new referrals, and of these 31 required colposcopy. Most of those requiring colposcopy had had only one abnormal cervical smear but ten had had multiple abnormal smears. The highest number of abnormal smears before referral was six.

The status of the new cases seen was:

- Servicewomen: 2
- Service Dependents: 39
- NHS: 10

**Colposcopic Findings**

The colposcopic findings were as follows:

- No CIN: 5
- CIN I: 6
- CIN II: 12
- CIN III: 8

However six of these were unsatisfactory colposcopies in that the upper limit of the transitional zone could not be seen and consequently cone biopsy was obligatory.

Twenty-eight colposcopic biopsies were performed and there was histological agreement with colposcopic findings in 20 and disagreement in eight cases.

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**FIG 1. Management Protocol for patients with abnormal cervical cytology**

- Abnormal Cytology
  - Normal Findings
  - Repeated Cytology Abnormal
    - Conisation
  - Repeat Cytology
  - Directed Biopsy
    - CIN I
      - Cryocautery
      - Repeat Cytology
    - CIN II
      - Electrodialthermy
      - Repeat Cytology
  - CIN III
    - Conisation/Laser Vaginal Hysterectomy
  - Cytological & Colposcopic Follow up
- Indecisive Findings
  - Conisation

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there was disagreement the colposcopic findings were optimistic in seven and pessimistic in one case. The disagreement was never greater than one degree of CIN and treatment was tailored to the worst findings.

**Treatment**

Eleven cone biopsies were performed; of these six were indicated by inadequate colposcopy. Five had been assessed colposcopically as CIN II and were subsequently found histologically to be CIN III. The other inadequate colposcopy had initially been assessed as CIN III and was finally found to be micro-invasive carcinoma. In the remaining five cases the histological findings agreed with the findings at colposcopic biopsy.

One patient, assessed as CIN III on colposcopic and histological grounds was referred for laser therapy. The subsequent repeated biopsy prior to laser therapy was also agreed as CIN III.

Four hysterectomies were carried out at the patients' request. Two of these were originally assessed as CIN II and two as CIN III. Histological findings in the hysterectomy specimens were CIN I (1) CIN II (1) CIN III (2).

**Discussion**

Prior to setting up this clinic in late 1983 none of us had had regular colposcopy experience and we were prepared to find some discrepancies between colposcopic and histological findings in the early days. In fact the degree of agreement has been fairly good and continues to improve. In only one case was colposcopy more pessimistic but adherence to the management protocol ensured that, as far as we can tell, no patient has been under treated.

Without colposcopy most of the patients would probably have had a cone biopsy, possibly delayed by some months. Of the 31 cases concerned, 15 were spared surgical excision. Allowing an average of five days in hospital for cone biopsy, if only two thirds of these would otherwise have had conisation, there is a financial saving of 50 bed days, currently some £4,000. The saving in subsequent morbidity and improvement in fecundity must be even greater. Even though the absolute numbers are small there are significant benefits to be gained by provision of colposcopy for the age group of women whom we, as Service gynaecologists, serve. The clinic has proved to be cost effective and has considerable capacity to expand without further capital expenditure. Were it possible to offer laser therapy in the outpatient department the financial saving would be at least doubled. We believe that it makes medical and financial sense to aim to have a colposcopy centre both in BAOR and in UK which would be able to accept referrals from other hospitals. However we would emphasize that the most important feature in making a success of our clinic has been, not equipment, but close co-operation between colposcopist and histopathologist. The opportunity for the clinician to study the histological sample obtained leads to better understanding of the practical difficulties of the histopathologist, greater care in taking biopsy and a more precise consideration of the treatment indicated. To quote Rene Cartier1 “Colposcopy must be learned in the pathology laboratory with a microscope”.

**Summary**

If as generally advised, a single abnormal smear result were to be taken as an indication for colposcopy, then the number of cone biopsies performed would be significantly reduced. Patients would have adequate treatment tailored to the severity of the individual cervical lesion without the risk of residual disease. This can be achieved whilst still making significant financial savings, and even greater financial savings are possible.

There remains a problem of follow up in our mobile Service population. It is possible that follow up would be easier if there were a designated colposcopy centre in

![FIG 2. The Olympus Colposcope used at the Cambridge Military Hospital.](http://jramc.bmj.com/)}
each theatre. Interservice co-operation would certainly make more centres available. We consider that colposcopy is with us to stay and that the days of occasionally borrowing the ENT microscope should be numbered.

REFERENCES

NOTICE
The Department of Accident and Emergency, Guy’s Hospital, London, is organising a meeting on:-
“Wounds, Ulcers and Dressings”
on 6 December 1985 in the Tower Lecture Theatre,
Guy’s Hospital from 0930 hours.
Enquiries about the meeting should be made to:
Major General N. G. Kirby, OBE, FRCS
Department of Accident and Emergency,
Guy’s Hospital, London Bridge, SE1 9RT
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