

COLPOSCOPY AS A SCREENING PROCEDURE IN THE EVALUATION OF ABNORMAL PAP SMEARS

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SYNOPSIS

This is a report on the use of colposcopy as a screening procedure in women with abnormal cytological smears.

From 1979 to August 1982, a total of 180 cases from the government unit 'A', KKH were seen at the colposcopic clinic as outpatients. Of these, 35 had dyskariotic Pap smears (Class III).

On analysis there were 6 cases of invasive carcinoma of cervix stage 1b, 2 cases of micro-invasion, 23 cases of carcinoma in-situ of cervix, 3 cases of severe dysplasia and one case of moderate dysplasia.

A total of 29 conisations were carried out. The incidence of bleeding after conisation was 20.6%. A total of 20 hysterectomies and one, Wertheim hysterectomy (post cone) were performed in the unit. The percentage of residual carcinoma in-situ in the hysterectomy specimens was 23.8%.

INTRODUCTION

Colposcopy (1) was first described by Hinselmann in 1925. The colposcope is a binocular microscope which enables the cervix to be visualized at a magnification of x 6 to x 40.

Kratz in 1939 introduced a green filter during inspection of the cervix thereby exposing the subepithelial capillaries by sharp contrast.

The colposcope has a focal length of 125-200 mm. The examination is carried out as an outpatient procedure.

MATERIAL AND METHOD

From 1979 to August 1982, out of 180 cases with suspicious looking cervix that were sent for outpatient colposcopic examination, 35 had dyskariotic smears (class III).

With the patient in lithotomy position a Cusco's bi-valve speculum was introduced to expose the cervix. A cotton wool swab dipped in 3% acetic acid is placed over the cervix for about five seconds to wipe out the mucus. The cervix is then focussed under the colposcope. The squamo-columnar junction is identified, any abnormal vascular pattern noted and punch biopsy taken.

A vaginal tampon is then inserted and the patient instructed to remove it four hours later.

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Table 1
AGE INCIDENCE OF DYSKARIOTIC SMEARS

Age Group	No. of Cases
25-30	3
31	5
35-39	9
40 and over	18
TOTAL	35

Table 2
PARITY OF PATIENTS WITH ABNORMAL SMEARS

Parity	No. of Cases
1	2
2	3
3	11
4	6
5	6
5 and more	7
TOTAL	35

Table 3
INCIDENCE OF THE GRADE OF ABNORMALITY HISTOLOGICALLY

	No. of Cases
Invasive carcinoma of cervix	6
Micro-invasion	2
Carcinoma in-situ	23
Severe dysplasia	3
Moderate dysplasia	1
TOTAL	35

Table 4
COMPLICATIONS OF CONE BIOPSY OF THE CERVIX

	No. of Cases
Cone	29
Primary haemorrhage	1
Secondary haemorrhage	5
Percentage of haemorrhage after conisation	20.06
Infection	1

RESULTS

- a. Age: The majority of the cases were over the age of forty years. (Table 1).
- b. Parity: Most of the cases were para 3 and above probably belonging to the older age group (Table 2).
- c. The colposcopy findings were graded as atypia 1, 2 & 3.

There was close co-relation between colposcopic examination, punch biopsy and cone biopsy results (Table 3). Only in 2 cases the cone showed(2) a more severe lesion (invasive carcinoma) than the punch biopsy (MICRO INVASION). If an endocervical curettage had been done the invasive lesion would probably not have been missed.

- d. Cone biopsy of the cervix: The complications of cone biopsy of the cervix include post-operative haemorrhage, pelvic infection and cervical stenosis. (See Table 4).

In our small series there was one primary haemorrhage within 24 hours which required an emergency abdominal hysterectomy. This is a case where the cervix was small and flushed with the vault. The cone had encroached too

extensively to the right side.

Secondary haemorrhage occurred in four cases from the third to ninth day.

One case was unique in that the uterus was perforated on the right posterior region during conisation. Immediate laparotomy and suture was performed by the gynaecologist in charge of the case. She went into shock four hours later and was re-sutured by the vaginal approach. She was discharged on the ninth post-operative day. She was re-admitted with profuse bleeding 2 weeks later and re-packed for 48 hours. After the pack was removed she bled and went into shock 3 days later. At last an abdominal hysterectomy was performed. At laparotomy a localized abscess was found at the site of perforation.

This woman was 34 years old and had 4 children. She had an abnormal Pap smear. Colposcopic punch biopsy showed carcinoma in-situ of the cervix. Cone biopsy showed severe dysplasia. The hysterectomy specimen showed moderate dysplasia.

This is also the only case with pelvic sepsis after conisation.

Residual abnormal epithelium in hysterectomy specimens after conisation:

Following cone biopsy of cervix 21 patients had abdominal hysterectomy out of which 20 were performed by various doctors in 'A' unit (one defaulted to the private sector for hysterectomy and the result is not available for comment) and one had Wertheim hysterectomy after conisation. From our series the incidence of residual abnormal epithelium was 23.8%. (See Table 5).

FOLLOW-UP:

- 1. Pregnancy after conisation. One case conceived after cone biopsy which confirmed carcinoma in-situ of the cervix. She had an elective caesarean section and post-partum ligation. Subsequent Pap smears were normal (Class II).
- 2. Three cases with severe dysplasia at age 36, 46, 47 respectively refused hysterectomy and are on colposcopic and cytology follow-up.
- 3. One case with moderate dysplasia is on close follow-up.

DISCUSSION

The concept of cervical intraepithelial neoplasia (CIN) of the cervix was introduced by Richart in 1967 (3).

According to him, CIN I mild dysplasia.

CIN II moderate dysplasia

CIN III severe dysplastic and

carcinoma insitu of cervix.

The aim of this classification was i) to achieve some degree of uniformity of reporting ii) to emphasize the histology similarity of the two lesions and frequent difficulty for some pathologists to differentiate them.

There is evidence that CIN I, II & III represent a continuum (4, 5) which ultimately may develop into invasive carcinoma. The lesser degree of atypia CIN I & II may precede invasive carcinoma without passing through a detectable CIN III stage. The progression from dysplastic lesion directly to invasive cancer was demonstrated by Burghardt (6).

Hence all cases of CIN need to be treated. The treatment should aim at completely destroying the lesion (Table 6).

CONCLUSION

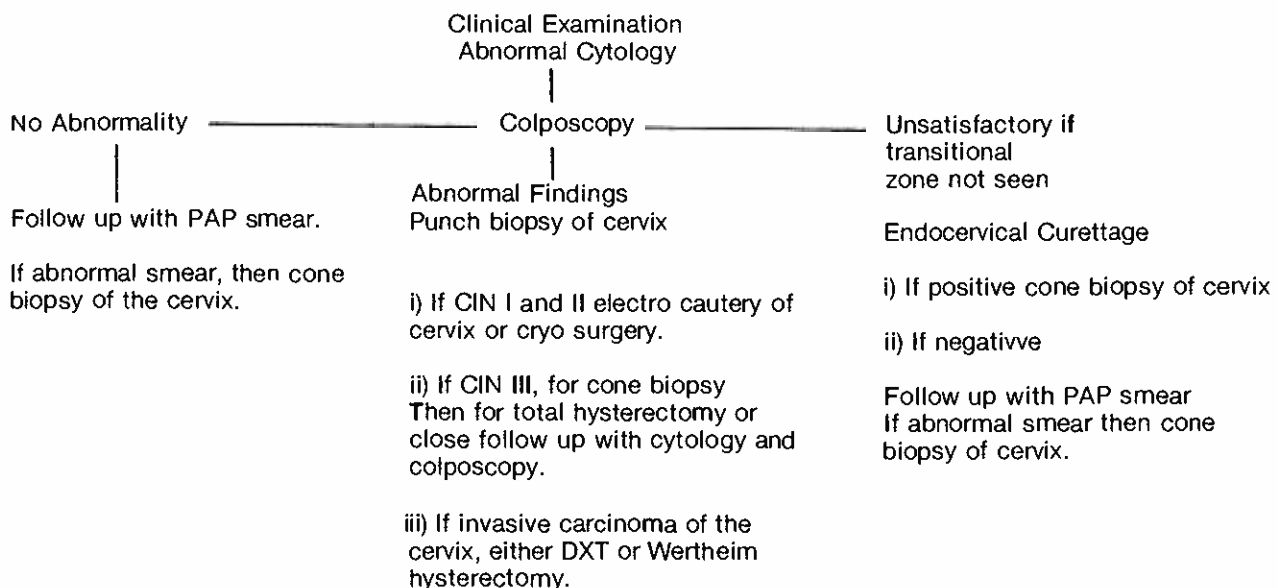
Colposcopy is a useful screening procedure for women

Table 5
INCIDENCE OF RESIDUAL ABNORMAL EPITHELIUM IN POST CONE HYSTERECTOMY

	Hysterectomy done in KKH	Wertheim hysterectomy in KKH	Hysterectomy in private sector
Total	20	1	1
Residual abnormal epithelium	4	1	

Percentage with residual abnormal epithelium in hysterectomy specimen after conisation — 23.8 %

Table 6
SCHEME OF INVESTIGATION AND TREATMENT



with abnormal smears. It can be done on an outpatient basis cutting down bed space and cost of hospitalisation.

The accuracy of colposcopy depends on the experience of the individual. The combined use of cytology and colposcopy effectively increases the accuracy of detection of cervical cancer (7).

Another use for colposcopy is to perform a cone biopsy with the colposcope in theatre. Then the size of the cone is determined by the colposcopic findings and can be tailored to the individual needs.

In this small series there is a fairly good correlation between colposcopic examination, histology from punch biopsy and cone biopsy. The high percentage of residual abnormal epithelium in hysterectomy specimen is probably because it is performed by various doctors and also we tend to do cone biopsy for a diagnostic rather than therapeutic measure since most patients have completed their family and were elderly.

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