SOME OBSERVATIONS ON THE DIAGNOSIS OF EARLY CERVICAL CARCINOMA BY CYTOLOGY, COLPOSCOPY AND HISTOPATHOLOGY

By L. Chan and K. Y. Tang

(Departments of Obstetrics & Gynaecology and Pathology, University Hospital, Kuala Lumpur)

During the 18 month period from 1st November 1967 to 31st May 1969 the detection of early cervical carcinoma was carried out by the combined method of cytology, colposcopy and histopathology. Out of 3,800 patients screened (2,155 obstetrical and 1,645 gynaecological) we picked up 7 patients with early carcinoma of the cervix. They comprised:—

3 patients with stage one carcinoma

2 patients with proven carcinoma-in-situ

2 patients with probable carcinoma-in-situ

The last 2 patients refused follow-up examination and biopsy and thus the histopathological diagnosis could not be determined.

The usefulness of this method can be illustrated from the case histories of 3 of the patients.

A.S., a 26 year old Eurasian gravida 8 para 7, was 12 weeks pregnant when she had a suspicious Pap smear. She was asymptomatic and the cervix looked normal. Colposcopic examination showed a small atypical area on the ectocervix which on punch biopsy was invasive squamous cell carcinoma (Fig. 1).



Fig. 1. A.S. Invasive squamous cell carcinoma (×100).

N.K.H., a 34 year old Chinese para 9, complained of 3 months of post coital bleeding. The cervix appeared normal except for an erosion. The Pap smear was suspicious of malignancy. Colposcopy revealed a growth within the endocervix which on biopsy was invasive squamous cell carcinoma. There was a colposcopically atypical area on the ectocervix but biopsy of this showed it to be granulation tissue (Figs. 2 and 3).



Fig. 2. N.K.H. Granulation tissue on ectocervix (\times 42).



Fig. 3. N.K.H. Invasive squamous cell carcinoma in endocervix $(\times 42)$.

K. S., a 40 year old Indian para 10, complained of inter-menstrual bleeding for 1 year. The cervix looked healthy but the Pap smear was suspicious of malignancy. A 4 quadrant punch biopsy of the cervix showed carcinoma-in-situ with suggestion of early invasion. Colposcopic examination detected a mildly atypical area on



Fig. 4. K.S. Widespread dysplasia with foci of carcinoma-in-situ $(\times 42)$.



Fig. 5. K.S. Carcinoma-in-situ in hysterectomy specimen ($\times 100$).

the anterior lip which on biopsy was only dysplasia. A subsequent cone biopsy followed by hysterectomy proved the lesion to be carcinomain-situ (Figs. 4 and 5).

CONCLUSIONS

Vaginal cytology is used in the first instance to screen patients for early carcinoma of the uterine cervix. The pick up rate in our initial experience is low of 2 per 1,000 obstetrical and gynaecological patients screened. In the further evaluation of patients with suspicious or positive smears, colposcopy can detect abnormal lesions too small to be seen by the unaided eye. Finally, adequate tissue for microscopic examination is necessary for definitive diagnosis which ultimately depends on the histopathology.

ACKNOWLEDGEMENTS

We wish to thank Professor Donald P. C. Chan and Dr. K. S. Lau for permission to carry out this study and publish. Special thanks to Mr. Ho Tat Seng for the colour separation and Professor Chan Kok Ewe for supervising the colour printing.

REFERENCE

Coppleson, M. and Reid, B. (1967): "Preclinical carcinoma of the cervix uteri." 1st Ed. Pergamon Press. Sydney., p. 174-186.

COLPOPHOTOGRAPHS OF CERVIX x63



Fig A. Atypical raised area at 8 o'clock on the ectocervix of A.S.



Fig C. Endocervical growth of N.K.H.



Fig B. Same area as in Fig A, Schiller positive.



Fig D. Endocervical growth of N.K.H., Schiller positive.

COLPOPHOTOGRAPHS OF CERVIX x63



Fig E. Raised atypical area at 5 o'clock on ectocervix of N.K.H.



Fig G. Atypical mozaic area on ectocervix of anterior lip of K.S.



Fig F. Same area as Fig E, Schiller positive.



Fig H. Same area as in Fig G, Schiller positive.