COLPOSCOPY

Essay

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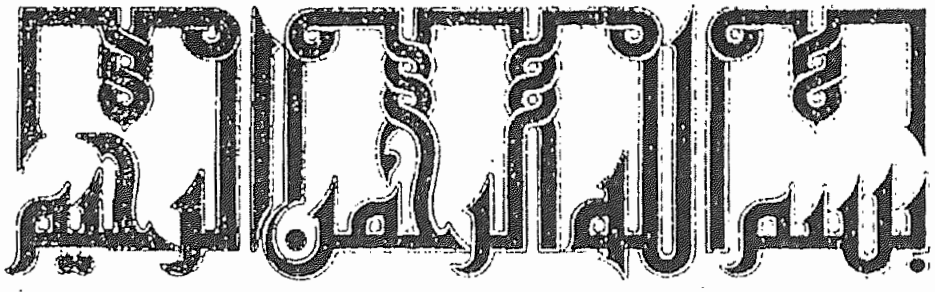
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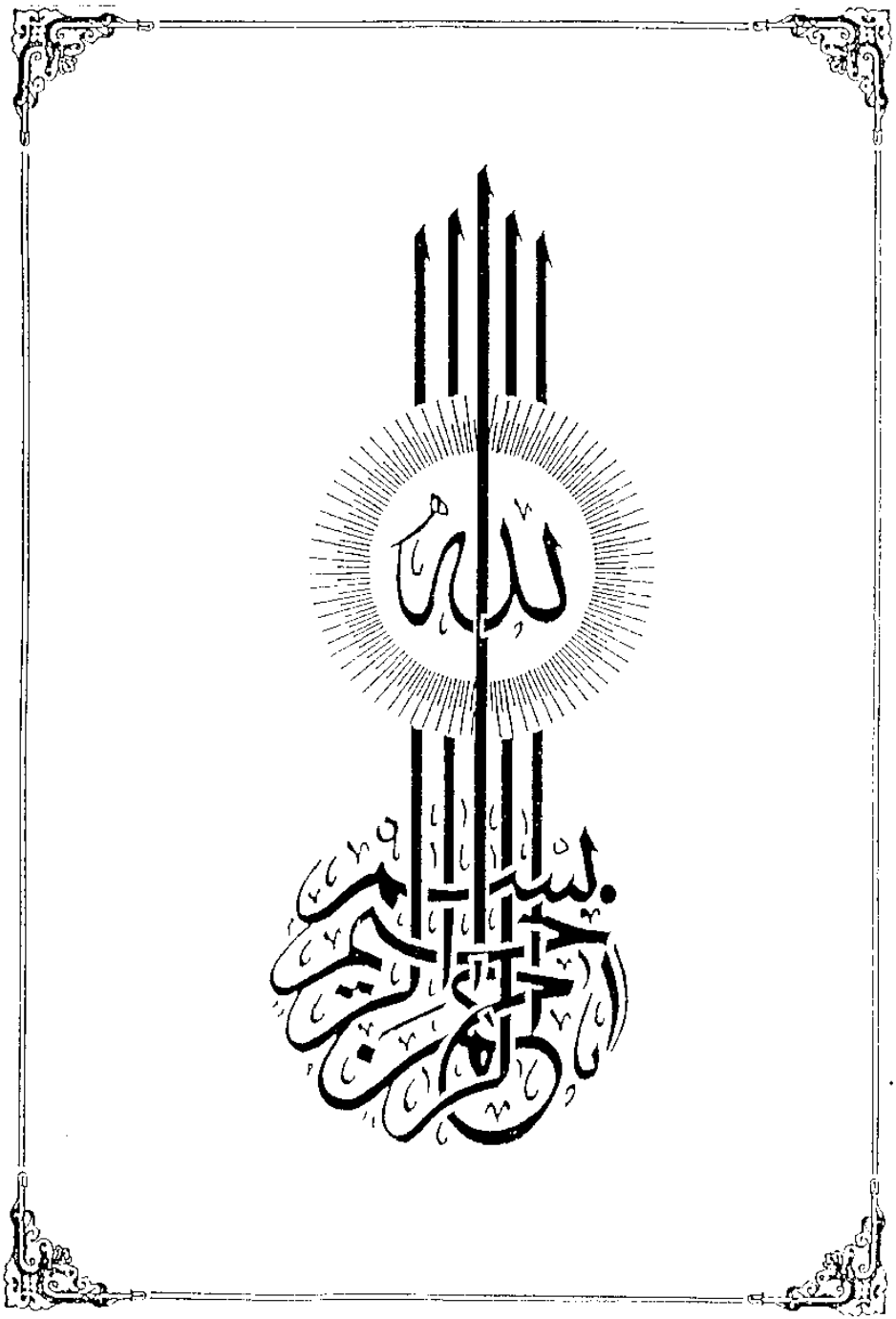

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INTRODUCTION

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For many years, it was claimed that colposcopy was no more than a research instrument, but recent work has shown that this is not so and confirmed that it is of clinical use to any one who has to deal with the problems posed by abnormal cervical cytology.

Colposcopy is used in a simple fashion, without anaesthesia and without surgical operation to expose the site of squamo-columnar, the limit beyond which, it is sure that there is no dysplasia or squamouse cell carcinoma.

Colposcopy makes it possible to localize the cervical lesion, predict its nature and obtain a direct biopsy, from which, the histologic diagnosis can be established. Also, colposcopy is very accurate in differentiating inflammatory atypia from neoplasia and invasive from non-invasive lesion. In patient with abnormal smear, colposcopy can immediately differentiate between inflammatory and neoplastic changes. Also, colposcopy helps in identifying the grade of the cervical intra-epithelial lesion, (Coppleson, 1976).

Cytology in conjunction with colposcopy give about 98% accuracy in diagnosing the different cervical lesions, (Staff, 1979).

Ideally, no patient with cervical lesions should be treated unless there has been prior colposcopic assessment, (Arnold, 1991).

AIM OF THE WORK

Aim of the work

To give some details about history and technique of colposcopy, colposcopic terminology, diagnostic criteria in colposcopy, colposcopy value in inflammatory and infectious lesions of the cervix, diagnosis of vulval and vaginal lesions, and its use during pregnancy and puerperium.

REVIEW OF LITERATURE

COLPOSCOPY

Chapter 1

HISTORY OF COLPOSCOPY

The first account of colposcopy was published by Hans Hinselmann of Hamburg, Germany in 1925. His original idea was that the earliest cancers of the cervix may occur as minute ulcers or tumours which could be recognized by means of suitable magnification and illumination. He designed an instrument using sharply focused light with binocular magnification which he called a "Colposcope" and thus a new field of clinical investigation was invented "Colposcopy". In early days, the technique of colposcopy was confined to the German-speaking nations. Its lack of popularity outside Germany was to some extent due to the fact that the original work was published in German but it was further hampered by the impression that its only value was a research instrument, (Jordan, 1985).

In 1931, Ries attempted to introduce colposcopy in the United States. Speaking before the Chicago obstetrics and Gynaecology Society, he reviewed the concepts upon which it was based and concluded that colposcopy provided an avenue for reduction of deaths from cervical cancer. His advice, however, was virtually ignored, and with the introduction of cytology during the 1940's the slight interest in colposcopy in North America became less (Townsend, 1978).

Over the next 2 decades, efforts were made to reintroduce the technique in the United States. Invariably, it was placed in competition with cytology, and invariably, it proved inferior for cervical cancer detection, (Limburg, 1958; Wilds, 1962, and Hill, 1966).

Colposcopy in north America did not die however, on the contrary, interest in this technique steadily increased due to several significant developments:

1. A logical, scientifically based, simplified terminology based on new concepts was introduced, (Kolstad, 1966).
2. Improved reference materials, teaching aids and instructional methods were developed.
3. Articles appeared in the English literature pointing out the value of colposcopy in avoiding the hazards and complication of diagnostic conization in the patient with abnormal Papanicolaou test, (Beller and Khatamee, 1966).

Colposcopical findings were at first, reproduced by drawings and water-colors. These methods were soon replaced by photography, either utilizing a separate camera or by building photographic equipment into the colposcope. A refinement of the photographic technique was introduced by Koller in 1955. Colpophotography affords an excellent and objective method of recording appearances and can be of great value in the observation of changes which take place slowly over a long period of time (Stafl, 1977).

The magnification of the colposcope objective, some years after its invention, was increased to that obtaining in the microscope (X 80, X 180, X 240) and the device known as the Colpomicroscope was used to study cytological detail of the cervical and vaginal epithelia after appropriate staining methods, (Coppleson, et al., 1978). The method is rather tedious and not very popular as a routine procedure, since the filed of view is limited and the depth of focus is poor

Colposcopy today is employed world-wide. Many papers have been published during the last two decades. It could be regarded as one of the most imortant advances in clinical gynaecology, (Howkins and Hudson, 1983).

Chapter II

Indications of Colposcopy

When the colposcope was first developed, it was directed essentially to the screening of asymptomatic women. This function has now largely been taken over by exfoliative cytology. The main field in which colposcopy has ben increasingly used during the last two decades is the interpretation and management of patients with abnormal smears. Cytology and colposcopy are now reognized as complementary methods in the early diagnosis of cervical neoplasia (Townsend *et al.*, 1970; Soutter *et al.*, 1986 and Noumoff, 1987).

Colposcopy should be used also to evaluate all women with clinically suspicious cervices, in the presence of a negative smear result (Kolstad and Staff, 1977).

Colposcopy is a directional aid in obtaining punch biopsies from the most suspicious area. It is also essential to determine the extension of these lesions (Meisels *et al.*, 1983).

Colposcopy is an essential guide in selecting cases of cervical intraepithelial neoplasia (C.I.N.) suitable for safe conservative treatment (Coppleson and Pixely, 1981). In a study of the Royal College of Obstetricians and Gynecologists (1982), they concluded that idealy no patient with C.I.N. should be treated unless there has been prior colposcopic assessment.

Also it helps in follow up of treated cases of C.I.N. The cone biopsy rate tends to fall in favour of an increase in the rate of the smaller colposcopically directed punch biopsy (Townsend , 1988).

Colposcopy is superior to cytology for the detection of early genital human papilloma virus infection (Schneider *et al.* 1988).

Colposcopy is also applied for the vulva, vagina and for DES exposed off springs (McDonnell et al., 1982).

Colposcopy, is a research tool helping to resolve the fascinating basic scientific problems of the etiology and pathogenesis of cervical neoplasia (Kolstad and Stafl, 1977).

Colposcopy is using to establish physical findings in rape victims, (Slaughter, and Carl, 1992).