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Barren marriage is an age old problem. With the advancement of civilisation, it has become more than an eternal medical problem which affects the welfare of society because reproduction is an essential aspect of marriage.

Exact incidence is 15% i.e. 1 in every 7 marriages. Positive universal interest in human fertility has become a part of many religions. Certainly, a condition, so prevalent, so undesirable and so threatening to society, through its affect on family life, warrants the close scrutiny, it is universally receiving.

"The association of a normal semen examination with a poor post-coital invasion, is a cause of sterility in 5-8% of barren women where other routine investigations of infertility do not show any abnormality as a cause".

Having settled, the presence of normal semen in the husband by previous examination of the ejaculate, it is necessary to determine whether or not the 'CERVIX' provides a physiologic medium for them.

Penetration of the cervical mucus by a large number of sperms is essential to fertility. This necessitates both the proper deposition of normal semen and a salutary state of the cervical canal. Cervix is a factor in sterility chiefly because of the pathological changes in the physical characteristics and the chemistry of its:
The primary function of the preovulatory cervical secretion is to supply an easily penetrable, nutrient secretion for the spermatoszoe that enter the cervical canal in their upward migration.

The term "hostility" employed in relation to cervical mucus in intended to imply that the normal appearing cervix may produce mucus that does not support and enhance spermatoszoeal passage.

The major changes in circulating blood levels of oestrogen and progesterone which occur during the menstrual cycle produce recognisable peripheral effects that can be used as signs of ovulation of which that on the cervical mucus is most important.

"The cervical factor must be looked for physically as well as biochemically because a cervix that appears to be normal on inspection with a speculum, is often abnormal biochemically and vice versa". Such a cervix though free from obvious abnormality, fails to do its physiologic function. It has "hypermucorrhoea". The fertile period of the menstrual cycle is governed to a large extent by oestrogen influences on cervical mucus secretion. Oestrogen along with progesterone exert significant controlling influences on fertility through their hormonal action on the cervix and particularly on the mucosa lining the crypts of the endocervical canal. This latter
action brings about cyclic changes in the nature of the mucus fluid secreted by the endocervix that are very important to sperm transport and survival in the female reproductive tract. Mid-cycle penetrable mucus is mainly the result of an oestrogen action and cervical mucus is the main factor involved in regulating sperm migration as the cervix is strategically situated at the entrance to the upper genital tract in which the reproductive processes of fertilisation, implantation and development of pregnancy take place.

When an opalescent, viscid, non-inflammatory cervical mucus, where in healthy spermatozoa may become enmeshed and devitalised, is present repeatedly during the ovulation phase of the menstrual cycle, a biochemical (endocrine) defect in the activity of the cervical glands may be assumed to be at the root of the trouble and even clear, elastic ovulatory cervical mucus may exhibit hostility. Such hostility may be merely an expression of insufficient oestrogen influence on the cervical glands.

In this presentation, one aspect of the pervasive philosophy that governs a logical approach to the problem of infertility i.e. the cervix and its mucus will be related to one knowledge of its structure. A hypothesis has been
postulated explaining the molecular biology of this mucus whose properties undergo unique changes during the menstrual cycle. The biochemical basis for these changing properties will be reviewed.

The sialic acid (a glycoprotein), an important constituent of the cervical mucus responsible for the rigidity and coherence of the mucin molecule has stimulated a voluminous literature and has been found applicable to many more conditions than the other tests of the cervical mucus. The clinical assessment of this cervical factor will be done in relation to its place in the investigation of the infertile couple.