NAME: EHIE-BISHOP GINA

DEPARTMENT: NURSING SCIENCE

MATRIC NO: 17/MHS02/037

FACTORS FACILITATING SPERM TRANSPORT IN THE FEMALE REPRODUCTIVE TRACT.

SEMEN

The alkaline section from the prostrate gland into the semen help to create an Alkaline environment in the acidic vagina to protect sperm in the vagina also prostagladine present in the semen and present in the female reproductive tract,facilitate myometrial contraction helps in movement of sperm towards the oviduct

FEMALE REPRODUCTIVE TRACT

- ESTROGEN and OXYTOCIN secreted in the female helps to assist myometrial contraction in other to facilitate the upward motility of sperm towards the oviduct.
- Estrogen facilitate the production of watery mucous in the cervix during the timing of ovulation to allow essay passage of sperm,in the female reproductive tract.Sperm undergoes capacitation.This occurs after the sperm membrane becomes fluid,the removal of cholesterol and glycoproteins from the membrane in other to expose the zona pellucida are binding site,there is a change in the sperm membrane potential that permit calcium (ca2+ to enter the sperm to facilitate vesicles release for the acrosomal reaction also during capacitation of sperm there is phosphorylation of

numerous protein needed in fertilization.

Sperm transport in the female tract

- Sperm transport through the uterus At only a few centimetres in length, the human uterine cavity is relatively small and could be traversed in less than 10 min by sperm swimming at about 5 mm/min, which is the swimming speed of sperm in aqueous medium (Mortimer and Swan, 1995).
- The actual rate of passage of human sperm through the uterus is difficult to determine due to experimental limitations. Variation is high among women within a study and between studies (Croxatto,1996). In one set of experiments, fertile women were in seminated into the cranial vagina shortly before surgical excision of both Fal-lopian tubes.
- Sperm were recovered from the fimbrial segment ofthe ampulla in two women whose tubes were removed 5 min afterinsemination, even though they had been abstinent for at least16 days.
- Sperm were recovered all along the tubes of two more women merely 10 min after in semination (Settlage et al., 1973).Unfortunately, the motility of these sperm was not assessed; there-fore, it could not be determined whether the sperm were capable offertilizing. In another study (Rubenstein et al., 1951), several motile sperm were recovered from Fallopian tubes following hys-terectomy 30 min after insemination in one patient and 1 h after

insemination in three out of seven patients; however, these women underwent surgery for treatment of fibroids, polyps or endometrio-sis and therefore sperm transport may have been abnormal.Transport of sperm through the uterus is likely aided by pro-ovarian contractions.