An Introduction to Gynecology and Obstetrics
Clinical History, Examination and common problems

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Gynecology is the specialty concerned with dysfunction and diseases of the female reproductive system. Obstetrics deals with pregnancy and childbirth. Many doctors do both (OB/GYN)
Anatomical and Physiological Review
In both males and females, the **perineum**, is a diamond-shaped area between the thighs. Note the **anterior triangle** (urogential triangle), which contains the urethral and vaginal orifices in the female and the base of the penis and scrotum in males. The **posterior triangle** (anal triangle) is the location of the anus in both sexes.
Sagittal section through the female pelvis

- Oviduct
- Ovary
- Uterus
- Urinary bladder
- Pubic bone
- Clitoris
- Labia minora
- Labia majora
- Cervix
- Rectum
- Anus
- Vagina
- Urethra
The parietal peritoneum dips down between the uterus and the bladder to form the **vesicouterine pouch**. It also dips down between the uterus and the rectum to form the **rectouterine pouch** (Douglas’ cul-de-sac).
Slice through large part of backbone which joins the hip

Bowel

Womb

Bladder

Pubic bone

Douglas’ cul-de-sac

Vagina (birth canal)

Anus

Urethra

navel

Belly muscles
Fertilization occurs within the **Fallopian tubes** (oviducts, uterine tubes, or salpinges)
Note sperm normally encountering the egg in the **Fallopian tube**. This view also demonstrates that **ovulation** occurs within the **peritoneal cavity**.
The **uterus** is a thick-walled muscular organ shaped like an inverted pear. It is where an egg normally implants.
The **uterus** provides a site for implantation of the pre-embryo, nourishes the developing embryo/fetus, expels the fetus at birth, and sheds its inner lining every month if pregnancy does not occur.
The *vagina* (Latin for “sheath” or “scabbard”) is the organ that receives sperm during intercourse and also is the *exit* during menstruation and parturition.
The **vagina** is about 3.6 inches long and extends from the vaginal orifice to the cervix. The uterus attaches at nearly a 90 degree angle.

**Figure 17.20**
External genitalia and internal reproductive organs of the female reproductive system.
The vagina is the copulatory organ of the female. Sperm deposited in the vagina quickly encounter the egg in the Fallopian tube so fertilization can occur.

Figure 15-2 The Timing and Location of Fertilization
Following ovulation the ovum travels through the Fallopian tube. Introduction of sperm during this time has the greatest chance to successfully fertilize the egg. Fertilization usually takes place in the upper half of the Fallopian tube and subsequent cleavage results in a blastocyst that implants within five to six days afterward.
The vaginal orifice may be partially, or completely, obstructed by a thin membrane called the **hymen**.
(a) Female external genitalia

Note labia majora, labia minora, and clitoris.
Mammary glands are the glands within the breast.

Figure 17.14 Female breast anatomy.
The female breast contains lobules consisting of ducts and alveoli. The alveoli are lined by milk-producing cells in the lactating (milk-producing) breast.
The **nipple** contains erectile tissue and is surrounded by the pigmented **areola**.
During pregnancy the areola becomes darker and enlarges, presumably to become more conspicuous to a nursing infant.
Milk is produced in the alveoli in the lobes of a lactating female, which is then collected into tiny ducts. These ducts merge into lactiferous ducts, each of which expand into a lactiferous sinus near the nipple. The milk is then ejected from the nipple.
Stimulation of the maternal nipple is essential in promoting production and release of milk.
Clinical History and Physical examination
Introduction

- Name
- Age
- Married/unmarried
  - If married, married duration and how many children?
- Occupation
- Address
- Date of admission
Presenting complaint

- Brief statement of the general nature and duration of the main complaint (ex- complains of bleeding per vaginal for 18 days duration)

- Subsidiary complaints
  - Ex fever for 5 days
History of the presenting complaint

- Describe the presenting complaint in chronological order
- Eg – abnormal menstrual bleeding
  - Pattern of bleeding – regular/irregular
  - Amount
  - Fresh or altered blood
  - Passage of clots or flooding
  - No of sanitary towels used per day
  - Intermenstrual bleeding
- Associated symptoms
  - Abdominal pain
  - Backache
  - Dyspareunia (deep/superficial)
  - Features of anemia – faintishness
- Effects on day today activities

History of subsidiary complaints
- Describe the subsidiary complaint in chronological order
Menstrual History

- Age of menarche
- Last registered Menstrual Period (LRMP)
- Length and duration of the cycle
- Premenstrual symptoms
- Dysmenorrhea
Past Gynaecological History

- Symptoms
- Abortions
- Surgery – D&C, PAP smear
- Drug treatment
Past Obstetrics History

- Number of children with age and birth weights
- Any abnormalities with pregnancy, labor, puerperium
- Number of miscarriages and gestation, which they occurred (if the blood group is negative whether the rhogum given or not)
Coital History
- Frequency
- Dyspareunia – superficial/deep
- Post coital bleeding – amount – for how long, fresh/altered

Contraceptive History
- Using or not
- Method (OCP, condoms)
- Duration
- Complications
- Past Medical History
  - Hypertension, Diabetes, etc
- Past surgical History
  - Operations in abdomen and pelvis
- Dietary History
  - Dietary iron intake
  - Fat content of a diet
  - Amount of food intake
Framework for the gynaecological examination

- General inspection.
- Cardiorespiratory examination.
- Abdominal examination.

Pelvic examination
- External genitalia inspection.
- External genitalia palpation.
- Speculum examination.
- Bimanual examination
Vaginal examination

- **Inspection**
  - Vulva- swelling, soreness, scratch marks, warts

- **Discharge**
  - Ask to strain and look for lumps arising at vulva
  - Ask to cough and look for incontinence
The Female Reproductive System

- **Abnormal bleeding in gynaecology**

- **Menorrhagia**
  - is an abnormally heavy and prolonged menstrual period at regular intervals

- **Dysmenorrhoea**
  - is a gynecological medical condition of pain during menstruation that interferes with daily activities

- **Intermenstrual bleeding (IMB)**
  - **Bleeding** in between periods

- **Postcoital bleeding**
  - Bleeding after sexual intercourse

- **Amenorrhoea**
  - is the absence of a menstrual period in a woman of reproductive age.

- **Postmenopausal bleeding**
  - Is bleeding after menopause
Speculum

- Vagina
- Lumps, ulceration
- Purulent/whitish discharge
- Cervix
- Size, color
- Surface
- Nodules, growths
- Os
  - Nulli/multiparous
  - Discharge, bleeding, products of conceptus
  - Contact bleeding
  - Open/close
  - Descent

A speculum, like the one shown, is used to hold open the vaginal walls during an exam. They can also be purchased to use at home.
Bi-manual pelvic exam to palpate uterus
Common problems in OBGYN
Some of the most frequent problems include

- Abnormal uterine bleeding
- Breast lump
- Sexual transmitted diseases (STD)
- Endometriosis
- Infertility
- Premestral syndrome (PMS)
- Urinary tract infection
Abnormal bleeding

- Ectopic pregnancy
  - Is a complication of pregnancy in which the embryo implants outside the uterine cavity
  - They are dangerous for the mother, since internal haemorrhage is a life-threatening complication. Most ectopic pregnancies occur in the Fallopian tube (so-called tubal pregnancies), but implantation can also occur in the cervix, ovaries, and abdomen.
Early signs include:

- Pain in the lower abdomen, and inflammation (pain may be confused with a strong stomach pain, it may also feel like a strong cramp).
- Pain while urinating.
- Vaginal bleeding, usually mild.
- Patients with a late ectopic pregnancy typically experience pain and bleeding.
If implantation occurs outside the uterus, an **ectopic pregnancy** occurs. An egg getting stuck in the Fallopian tube (**tubal pregnancy**) is a common site for such ectopic pregnancies.
Cervical cancer

- Is a malignant neoplasm arising from cells originating in the cervix uteri.

- One of the most common symptoms of cervical cancer is abnormal vaginal bleeding, but in some cases there may be no obvious symptoms until the cancer has progressed to an advanced stage.

- Treatment usually consists of surgery (including *local excision*) in early stages, and chemotherapy and/or radiotherapy in more advanced stages of the disease.
Cancer screening using the Pap smear can identify precancerous and potentially precancerous changes in cervical cells and tissue.

Human papillomavirus (HPV) infection appears to be a necessary factor in the development of almost all cases (90+%) of cervical cancer.
11. Carcinoma.
Endometriosis

Endometriosis is a gynecological medical condition in which cells from the lining of the uterus (endometrium) appear and flourish outside the uterine cavity, most commonly on the peritoneum which lines the abdominal cavity.

The uterine cavity is lined with endometrial cells, which are under the influence of female hormones.

Endometrial-like cells in areas outside the uterus (endometriosis) are influenced by hormonal changes and respond in a way that is similar to the cells found inside the uterus.

Symptoms often worsen with the menstrual cycle.

Endometriosis is typically seen during the reproductive years; it has been estimated that endometriosis occurs in roughly 6–10% of women.

Symptoms may depend on the site of active endometriosis. Its main but not universal symptom is pelvic pain in various manifestations. Endometriosis is a common finding in women with infertility.
Endometrial tissue in peritoneal cavity (endometriosis)
Sexually transmitted disease

- Are illnesses that have a significant probability of transmission between humans by means of human sexual behavior, including
  - vaginal intercourse,
  - oral sex,
  - and anal sex.

- While in the past, these illnesses have mostly been referred to as STDs or VD, in recent years the term *sexually transmitted infections (STIs)* has been preferred, as it has a broader range of meaning; a person may be *infected*, and may potentially infect others, without having a *disease*.

- Some STIs can also be transmitted via the use of IV drug needles after its use by an infected person, as well as through childbirth or breastfeeding.
Causes

- **Bacterial**
  - Chancroid (*Haemophilus ducreyi*)
  - Chlamydia (*Chlamydia trachomatis*)
  - Granuloma inguinale or (*Klebsiella granulomatis*)
  - Gonorrhea (*Neisseria gonorrhoeae*), colloquially known as "the clap"
  - Syphilis (*Treponema pallidum*)

- **Fungal**
  - Candidiasis (yeast infection)

- **Parasites**
  - Crab louse, colloquially known as "crabs" or "pubic lice" (*Pthirus pubis*)
  - Scabies (*Sarcoptes scabiei*)

- **Protozoal**
  - Trichomoniasis (*Trichomonas vaginalis*), colloquially known as "trich"
Viral

- Viral hepatitis
- Herpes simplex (Herpes simplex virus 1, 2) skin and mucosal, transmissible with or without visible blisters
- HIV (*Human Immunodeficiency Virus*)—venereal fluids, semen, breast milk, blood
- HPV (*Human Papillomavirus*)—skin and mucosal contact
- Molluscum contagiosum (molluscum contagiosum virus MCV)—close contact
Pus from gonorrhea exiting cervix
Pelvic inflammatory disease (PID) is a common cause of infertility and ectopic pregnancies because it either narrows or blocks the Fallopian tubes.

is a term for inflammation of the uterus, fallopian tubes, and/or ovaries as it progresses to scar formation with adhesions to nearby tissues and organs. This can lead to infertility. PID is a vague term and can refer to viral, fungal, parasitic, though most often bacterial infections.
Breast lumps

- are localized swellings that feel different from the surrounding breast tissue.
- Are signs for a variety of conditions.
- As approximately 10% of breast lumps ultimately lead to a diagnosis of breast cancer, it is important for women with a breast lump to receive appropriate evaluation.

<table>
<thead>
<tr>
<th>Findings in women seeking evaluation of apparent breast lump</th>
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<tbody>
<tr>
<td>Fibrocytic breast changes</td>
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<tr>
<td>No disease</td>
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<tr>
<td>Fibroadenoma</td>
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<tr>
<td>Other benign mammary dysplasias and neoplasms</td>
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<tr>
<td>Breast cancer</td>
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Metastatic breast cancer nodules. These nodules represent lymphatic spread of a primary breast cancer to the skin. There are clusters of nodules which were very painful.
WHERE CANCER IS MOST LIKELY TO BE FOUND

Lymph nodes

- 50%
- 15%
- 18%
- 11%
- 6%

Source: American Cancer Society