

ANATOMY.

Pelvic bones - sacrum (s. 5) coccyx (4c) 2 innom. (ilium, ischium, pubis)

Floor - Levator Ani - forms main part of floor. Pubo-coccygeus.

Female Gen. System.

External: Labia majorum & minorum.

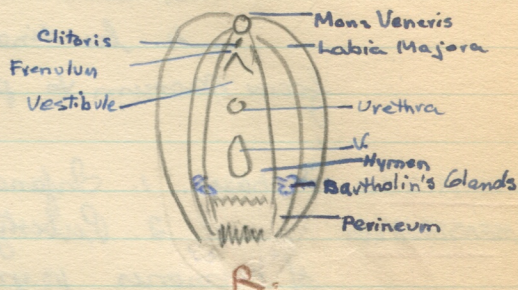
Bartholin's Glands.

Clitoris

Vag. - Perineum.

Hymen.

Mons.



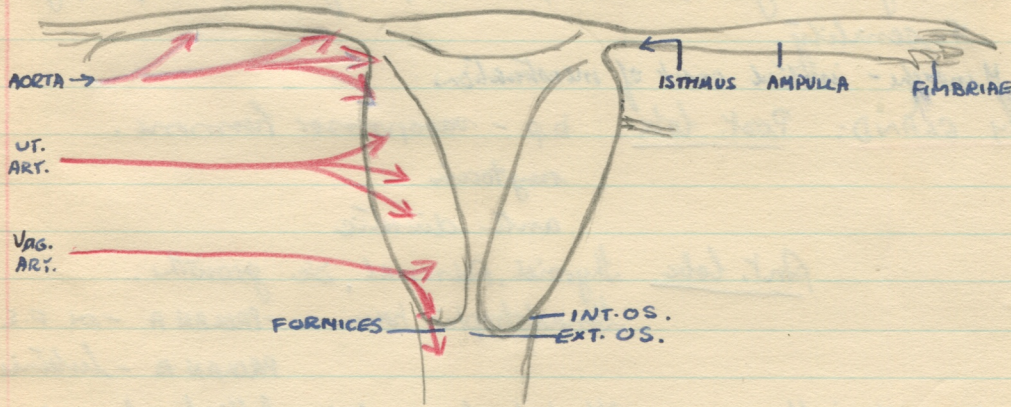
Internal: Vagina

Uterus - Fundus & Cervix 3 x 2 x 1. Peri, myo, & endometrium - then peritoneum.

Fallopian tubes - ciliated epith. - Fimbriae, ampulla & isthmus

Ovaries - smooth, almond-shaped in maidens, cystic in old dears.

2 sections - cortex (ovum); medulla (egg cell matures here).



Blood supply: 1. Ovarian artery - from Aorta.

2. Uterine arteries - internal iliac.

3. Vag. artery - inf. vesical art. (from int. iliac)

4. ovarian vein drains to L. Renal vein, R. ov. vein drains to Inf. Vena Cava.

Ligaments: 1. Indirect supports - Levator Ani muscles.

2. Direct - 4 lig. -

1. Broad ligament - fold of peritoneum - from side of pelvis & envelops whole of ut. & tubes - encloses them. contains ovarian artery.

2. Round ligaments - through inguinal canal from sides of uterus, and inserted into labia majorum.
3. Ovarian ligament - from ovary to ut.
4. Cardinal ligament (or Lateral Sacral or Viscero-Vesical ligament) from sacrum to pubis.

OULATION →  
→ MENSTRUATION

- 5 phases.
1. Infancy & childhood.
  2. Puberty - normal growth, growth of local sex hormones. Onset of hormones (13 yrs.) glands - pituitary - act on ovaries.  
breasts, adipose, pubic & axillary growths, menses.
  3. maturity, ovulations.
  4. Menopause (45-46) 2-3 yrs. for process-ovaries, cease - no hormones  
Clinical loss of functions - <sup>Beetle</sup> - there's nothing regular about the manner in which she loses"  
temperament - sympathetic nervous system - hot flashes.  
genital organs, ovaries, sclerose, ut. fibrous, breasts atrophy, lose hair.
  5. senility.
- Menarche - initial onset of menstruation.

PITUITARY GLAND: Post. lobe. b.p. - vasopressor hormone.

oxytocin  
anti-diuretic

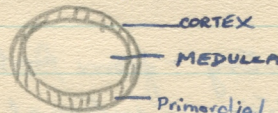
Ant. lobe Thyroid, Adrenal, etc growths.

Gonadotrophic hormones - PROLAN A - or F.S.H.

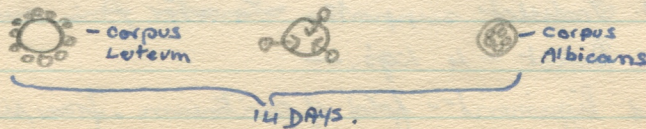
PROLAN B - luteinising hormone

F.S.H. influence growth & development in follicles of ovaries - see

sagittal



If ovum fertilised, corpus luteum keeps on growing for 12 weeks, then disintegrates.

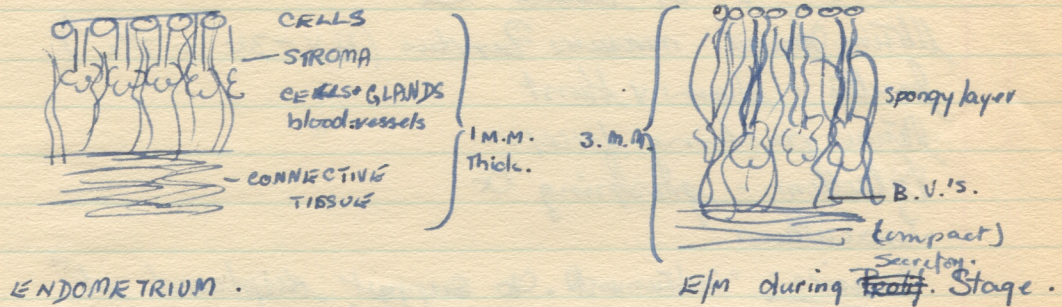


Corpus Albicans - 10 days to extrude ovum - if ovum not fertilised - 14 days to form corpus albicans.

Ovaries produce 2 hormones:

1. Oestrogen (produced by follicles)
2. Progesterone - produced by corpus luteum - both act on endometrium.

Oestrogen produces proliferative phase on endometrium, progesterone produces secretory phase.



1 M.M.      10 DAYS      3 M.M. 14 days.      5 M.M.

Endometrium 5 m.m. high at end of secretory phase. No more formation of progesterone when c. albicans disappears, then spasms of endomet. and oedematous + thickened congestion of blood vessels. Demarcation between spongy and basal - shed layer - menstruate - approx. 4 days.

Menstruation - material loss of mucus - blood - degenerated lining of ut.

When ovary fertilized - c. luteum keeps producing for 12 weeks - juicy spot for ovum to land in - the corp. luteum ceases, then placenta develops - and continues job of c. luteum.

75% - 28 days.      5% completely irreg.      20% vary 24-32.

Discomfort varies - Periodicity: mild discomfort to nausea  
[vomiting or incapacitating pain - dysmenorrhoea.]

Time of Loss: usually 4 days - 2-8 days maybe.

Amount: 6-8 oz - first 2 days loss heaviest.

Mucus from glands, blood, then mucus.

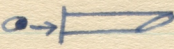
Gravarian Follicle - oestrogen.

Corpus luteum - progesterone.

Oestrogen stim. endometrium to repair & build up after Menstr.

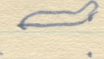
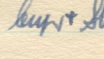
Progesterone - stem.

INSTRUMENTS.

Howard Speculum - Vag. Op.'s  
 Jim's Speculum - 4m. of Vag.  
 Duckbill - Buscoe's.  
 Ferguson's 

Dilators - 3-21 dilate Cx  
 Meire found - measures Fundus (4V-3U = 7 1/2")  
 Bougies - sharp & blunt  
 Meire packing forceps.  
 Vulsellum - grasping Cx  
 Tenaculum

Pessaries: "instruments to support displaced ut."

Hodge Smith  Watchspring  burr skin - dd, clears out up to opv.  
 for retroversion

Watchspring - vulcanite outside - spring inside - maybe rubber or plastic.  
 Bougie for - Removal of retained products of incomplete abortions.  
 Diagnostic.

Tr. of dysmenorrhea. (rare)

To insert Pessary - Sterile Trolley.

Bowl - wool swabs  
 " - Dettol 1:40 (2 1/2%) or. Zeph. 1:1000.

Sponge-holding forceps.  
 Vag. Speculums - Jim's.  
 Vulsellum.

Bowl, assorted pessaries (soaking in Dettol) - st. by boiling.  
 St. lubricant - glyce., part. or Dettol cream  
 K.D for used swabs.

Dressing towels. - Sterile gloves (correct size)

Prep. Explain to patient.  
 Empty the bladder (patients)

Position: Jim's or dorsal.

P. stands on floor after insertion to test if fitting well + comfortable.

Advice to P.: Any discomfort - displacement or vag. discharge - report to Doc.



DYSMENORRHOEA.

Primary, cat.) 1r. Prophylactic - educating girls in theory of function (no need to worry)  
Constitutional - encouraged to take exercise.  
Local heat to abdo. (L.W.B)  
Symptomatic paining. habit forming drugs - A.P.C. codein, etc.  
Endocrine - suppress ovulation - give oestrogen, etc.  
Op. - dilatation of Cr.  
Injections of alcohol into Sacral Plexus - abradie.

SECONDARY - painful - assoc. to organic disease

eg. ov. cyst, ut. fibroid.  
ITS. due to actual lesions. 1r. of cause.  
endometriosis, ch. salpi.-oöphritis stenosis of Canal.  
MITTELSCHMERZ or ovulation PAIN - sharp pain felt at ovulation during middle of period due to ovum popping out of ovary into tube.

PRE-MENSTRUAL TENSION

- syndrome assoc. to loss of appetite, nausea, swelling of abdo., etc.  
1-2 weeks pre-menstrually. Due to retention of sodium chloride & water in the body.  
1r. salt-free diet 4 days avant period.  
2. limited fluid intake avant period (20 Daily)  
3. Diuretics - ammon. CHLOR. - i. 6 hdy. for week avant.

ABNORMAL BLEEDING.

Menorrhagia - excessive blood loss at menses.  
Metrorrhagia - inter-menstrual periods (between p's)  
Oligomenorrhagia - v. small loss.  
Dysmenorrhagia - symptoms, but no blood.  
Ovulation bleeding.

1. Uv. Bleeding - 

period	↓	period
□	□	□

 uncommon. No tr. nec.  
2. Meno + Metro.

causes. A. Anatomical - concerned c. genitalia - Vag. to Ov. x'd -  
Communications - Vaginitis Polyp or V. Ca., Ca Cr,

Leucitis, Ca polyp. ; ut. fibroids, Ca Fundus, endometriosis salpingitis, tumours, ovarian cysts, etc. unless:

B. Constitutional - acute - pneumonia, blood diseases - leuka.  
Chronic - ch. ill health, Db., Th.

ABNORMAL BLEEDING.

Functional - anamed c. endocrine upset - Pituitary acts on ovaries & ut. Adrenals, Thyroid, Parathyroids. Only functional if there are no anat. or constit. diseases.

Investigations - bleeding excessive? - pale, anaemic, shocked, etc. any anatomical cause or const. cause.

General examinations.

Pelvic exam.

K.U.A. if ↑ unsuccessful.

Biopsy of any suspicious area - spec. of Ca or D.C. (ut.)  
Laparotomy.

CRYPTOMENORRAGIA.

Congenital abnorm's - Stricture of vag.; imperf. hymen.

S.F.S. Sense of fullness in abdo. & perineum & rectum discomfort

P.V. - gloaggy mass of blood.

Jr. Imperf. hymen - incise hymen.

Vag. stricture - plastic op.

POST MENOPAUSAL BLEEDING.

Any case must be investigated as may be caused by an organic disease - Ca, polyp, etc.

AMENORRHOEA: can be normal or abnormal.

Normal - physiological - pri. puberty, during preg., & post-menopausal

Abnormal - local - Vag. <sup>imperf. hymen</sup> stric. etc. - haematocolpos. <sup>after hysterectomy oophorectomy.</sup>

ut. loss of endometrium - by Ca? - or after D+C

hypoplasia - infantile ut. <sup>haemorrhage</sup> after cauterizing.

Tubes - radium implants affect lining.

Ovary - Tumours: absence of by Cong. or Op.

constitutional - dis. i.e. gen. debilitation - anaemia, or

Psychic - fear of pregnancy.

Endocrine - absence of normal hormones - replaceable by oestrogen and progesterone. (hyper + hypothyroidism, hyperplasia adrenal cortex, etc.)  
functional & environmental influences.

COMMON DISEASES OF GEN. & URETH.

VULVA

Acute Vulvitis

- Causes
1. uncleanliness
  2. vag. discharge.
  3. inflam. assoc. w/ diabetes.
- sts. local redness & itchy - 2<sup>dy</sup> infection.  
maybe discharge; swollen lymph glands in groin.
- Tr. find cause + eliminate.  
symptomatic - avoid strong soaps, no friction  
blend ung. 's + powder - Zinc Oxide + bast. Ull. base.

KRAUROSIS VULVAE

Shrinking of ext. gen. usually at menopause, caused by too sudden withdrawal of hormones, pain on mict., narrow vag, ripen, pruritis

Tr. Oral stilboestrol, oestrogen

LEUCOPLAKIA VULVAE

Thickening and whitening of epithelial layer - very dry.  
Tendency to bleed and often fissures formed.  
Imp. common to pre-cancerous condition.

Tr. surg. removal of ext. gen. often.  
symptomatic tr. - sedative rect + ungp.

TUMOURS OF VULVA. - Benign - Polyp.  
Malignant - Ca.

BARTOLINI'S  
GLANDS

common site of acute infections. - Monococcus - abscess may be found in gland. Pain around ext. gen. maybe discharge (fist, mabscess, etc.)

Tr. R.I. B. local application of heat over area of gland.  
Sedation: chemotherapy - penic. + Sulphas.  
If abscess incise it.

Chronic Infe. - after acute in P. ineffective.  
Tr. surg. dissection of gland.

Ca Vulva. - assoc. w/ leucoplakia vulva.


Tr. surg. removal of vulva + bilat. inguinal lymph nodes.



CARUNCLE

small granulomatous mass, size of a pea at urin. meatus, usually on posterior wall.

Sxs. Aggravating pain on micturition.  
— Bleeding.

Diag. By speculum in vag. and looking at caruncle   
Surg. removal of caruncle (may recur) & cautery (w. slow healing)

INFECTIONS OF VAGINA.

TRICHOMONAS (small pear shaped org. c. tail  $\{$ ) in vag. discharge - goults floating about.  
Discharge - thin, yellow + watery.

Tr. 1. Acid douche daily for 1 month & s.v.c. suppository in vag every month. Douche reset month every 2<sup>nd</sup> night & supp. inserted.  
Third month - no douche, but vag. supp. inserted every day during menses + 2-3 days after for 2 months. (4 months in all)

MONILIA

(wonder mite) discharge - thick & white curd over ~~red~~ red vagina.

Tr. paint inside c. G.V. 2% solution twice a week  $2\frac{3}{4}$ .

GONOCOCCUS

microscopy - Tr. treat c. R. I. B., sedation + chemotherapy.

STREPTOC.ENDOCRINE

hags - lack of hormones

CAUSES

Tr. oral or local (supp.) hormones.

TUMOURS.

Benign

Malignant Ca - primary or secondary.

INFLAMMATION of G - Acute Cervicitis.

Commonest cause is Neisseria - or Post. partum (str. etc.) pyogenic - strept or staph. <sup>trauma.</sup>

Sxs. Discharge purulent.

— Sometimes backache & lower abdo. pain. - poss. fever, malaise + tachycardia

Diag by K+.

O/E G red + swollen w/ pus exuding from external os.

Tr. chemotherapy.

R. I. B. etc. if bacteraemia

## CERVICITIS

pathological changes resulting from pres. bod. infection either gonoc. or pyogenic.  
Chronic - most common complaint in women. Due to post-partum infection or long. weakness in Cx. Pass. after acute.

S.S. pelvic discomfort; discharge, <sup>leucorrhoea</sup> bleeding (menor. + metrorrhagia)

Diag. by speculum.



External Os.

Sticky-white follicle-like bits on Cx - NABOTHIAN follicles.

Tr. Oral toilet - electro-coag. of cerv. canal.

Cx dilated - curettage + site of erosion diathermied



burns.

Discharge for a month as result of diathermy.

- 1) local cauterisation
- 2) cautery
- 3) conisation
- 4) plastic ops.

INFLAM. OF UT. - Acute + chronic endometritis - usually gonococcus - frequent after abort. or misc.

S.S. discharge + bleeding, pelvic discomfort.

Enlargement of ut. by digital method. Usually not chronic as infection passed out at menses.

Tr. Chemotherapy, P. etc. P. sat propped up - pus drains.

Chromi. D+C. of ut.

May be assoc. c. pyometria. Ut. enlarged and painful. Ex. difficult.

Tr. Dilatation of Cx to let out pus.

Chemotherapy and stilboestrol (Sometimes)

## TUMOURS OF Cx. + UT.

Cx - Benign + Malignant.

Benign: Cx polyp - Main s. bleeding - menorrhagia, etc. Tr. Twist off pedicle or D+C.

Malignant: Ca. 3<sup>rd</sup> most common in females - spread to vag., ut. or via lymphatics

Ca + stages - tr. depends on stage - usually surgery.

Ut. Benign - Fibro-myoma (fibroid) - muscle fibrous tissue - usually in younger women (25-40) commonly fibroid retrogresses.

Aetiol. unknown - lack of preg.? - hormonal cause, anyway.

3 types - Sub-mucous type - in inner part of endometrium.

Interstitial type - fibroid in bed of ut. - myometrium.

Sub-peritoneal - on outside.

S.S. Pain in tum + back - constant pain.

Dysmenorrhoea, Men. + Metrorrhagia - may palpate mass in abdo. or pressure on other organs (anuria etc.)

Diag. by abdo. exam. - pelvic exam. D+C.

May be confused c. preg. (no fetal heart - X-Ray - Asheim-Zondek tests).  
+ Oo. cyst!

Tr. depends on amount of pain, age of patient and no. of children, amt. of bleeding, size & site of fibroid.

1. If small, little discharge - may regress.
2. D.t.c. for sub-mucous type of fibroid.
3. Mycotomy - dissection of fibroid ut. left behind - Vag. or Abdo. Op.
4. Hysterectomy - old p., menopausal, large fibroids, large blood loss.
5. Radium insertion.

Malignant - Ca. of U. or Sarcoma - hyster. & bilat. salping-oph-ectomy.

Salpingitis: 3 types. -

1. Gonococcal - 2y to infec. plethora - Vag., ut. or Cx.
2. Pyogenic - prim. or 2y. to any organ carrier form of pus.
3. Tb - 2y.

S.T.S. 1 T°

— Feels v. sick.

Severe abdo pain - often vomiting.

Poss. Vag. discharge.

If R. sided - similar to Appendicitis (diff. : dist. from vag.)

Tr. R.I.B. semi-Fowler's position.

Analgesics: sedation.

Local heat to abdomen.

chemotherapy - cures Pyo. & Genno.

Anti Tb drugs - P.A.S., I.M.H. → Skept.

Major cause of sterility - infl. causes adhesions - blocks lumen.

RUBIN'S TEST Carb.-Diox. in Vag. 30-120 m.m. mercury ne. to force air in (normal) more blood

Pelvic Peritonitis - Localised peritonitis in pelvis. Infection from ut. or tubes, ovaries, bowel (ruptured or traumatised), blood stream & lymphatics.

S.T.S. similar to peritonitis - lower abdo. pain + nausea.

→ P.H. of vag. discharge or acid. of peritonitis.

P.V. nearly imposs. - P. tender.

Tr. conservative - i.e. R.I.B., F. pos., heat, antib. - analgesics & sedation.

If inflammation localised - poss. pelvic abscess in Pouch of Douglas - felt at P.V. Incise abscess at vag. - rubber drain tube or glove drain

TUMOURS OF

FALLOPIAN TUBES

fairly uncommon: benign fibroma + lipoma.

malignant - Ca - primary

or secondary - primary in ut.

OVARIES

Ovarian cyst - Ca, etc.

Benign - simple cyst - may rupture & cause pain - clears up in hours.

Lutein cyst (haemorrhagic) over development of corpus luteum - pain, pressure, etc., no signs.

Pseudo Mucinous cystadenoma (has fluid very like mucin) - usually found in 20-40 - usually only in one ovary.

Sx. Abdo. enlargement -

Mass may be palpable.

Menstr. disturb.'s - none or excessive.

Pain - pressure on nerves.

Symptoms, due to pressure - constip., etc.

DANGERS OF TORSION. poss. slow twist - intermittent agonizing colicky pain or acute - agonizing pain & may collapse

Diag. usually made at laparotomy.

INFECTON - prim. due to oph. - pain like ruptured appx.

MALIGNANCY - Pseudo-Mucinous cystadenoma.

Sx. depends on findings at laparotomy - if poss. just remove cyst, but p.r.n. ovary as well.

Granulosa cell: (cells produce oestrogens) in girls 5-10 yrs. Sx. of precocious puberty. May be also in old dears 40-50.

FERRUGINOUS TUMOUR - produce androgens - lose feminine characteristics and become manlike. Malignant, usually Ca or Sarcoma.

Enlargement of Lim due to (William Osler!)

FAT

FACIES

FLATUS

FOETUS

FIBROIDS.

COMMON GYNÆ  
OP.'S.

1. D. & C. - Diagnostic in menorrhagia, post-menopausal bleeding or to find if p. ovulating.  
Therapeutic - Incomplete abortions, Polyps, & some fibroids.
2. Ops on Ovary Oophorectomy - removal of ovary.  
Simple Ov. Cystectomy - removal of cyst only.
3. Tubes: Salpingectomy - removal of tubes.  
Salpingostomy - opening of tubes.  
Salpingolysis - freeing of adhesions around tube.  
Plastic ovis.
4. Misc: Hysterectomy or Caesarian section  
Sub-total hyster. - Body + Fallopian tubes.

UTERINE  
DISPLACEMENTS.

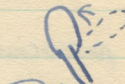
Supports - Direct - Vagina & ligaments - Broad, Round & Uvarians.  
Indirect - Levator Ani muscles Perineum.

1. RETROVERSION: normal ut. sits forwards on vag.



Normal Anteversion

Cx points down + back



Retroversion.

Cx points down + forward.

Causes: congenital - 20% born w. it.

Acquired - due to pelvic inflam. or sequel to mult. para.

S. + S.: backache & pain.

Diag. by feeling ut. - bimanual method ↓↔  
or via speculum at Cx

Tr. - nothing much - if painful - replace ut. - Lateral position or knee-chest position - grasp anterior lip of Cx & trachelum and pull backwards.  
Pessary then inserted - Smith's Hodge. Keeps in position (pessary) for 3 months, then remove and see if ut. still anteverted. If not - then op.  
Daily douche given when pessary in place.

Op. - Gilliam's Suspension. Mid line incision in abdo. wall (!) round ligament brought up through rectus abdominus - tightens ligament and brings lig. forward. Ret. ut. due to slackening of this lig.

2. PROLAPSE

Cystocele: displacement of lower part of vaginal wall and bladder wall.

Rectocele: Post. part of vag. gives way & rectum bulges into vag.

Entocele: when back of Douglas and intestines bulge into vag.

Ut. may prolapse

Classical Prolapse: cystocele, ut. down, entocele, rectocele.

Causes: childbirth.

~~Causes~~

post-menopausal atrophy.

S+5.

hachade.

lump in groin - more noticeable when p. strains down - may have urinary troubles. - stress incontinence - micturates when coughs or laughs. - constip. or diarrhoea.

Pr. preventative prep, care + attention at birth

conservative - poor op. risks, young preg. women, f. who will want children - watch spring pessary.

Op. curts:

Maintenance  
or  
restoration  
Repair

Anterior Colporrhaphy

Post. colporrhaphy

Perineorrhaphy (usually to Post. colporrhaphy)

Amputation of lx. enlarged when ut. prolapsed.

Vaginal Hyster. done if outlet too gross for repair - usually in elderly post-menopausal repair - Fibroids, etc. Abdo hyster.



ABORTION.

Termination of pregnancy - the fetus being inviable for less than 28 weeks preg. Nic. same as abort.

Causes:

Maldevelopment of ut. or embryo itself

Abnormal position of embryo in ut.

Drugs - Ergot, lead, mercury, quinine

Acute maternal disorders - pneum., etc.

Chronic maternal disorders - syphilis, etc.

Self-induced abortions - traumatic usually.

Three stages of birth - 1. contraction of ut. 2. Vb to open 3. Expulsion of products of concept. About miniature labour.

	<u>Pain</u>	<u>Haemorrhage</u>	<u>Uls.</u>	<u>Expelled.</u>
1. <u>Threatened Abortion</u>	+ poss.	+ some.	closed.	clots.
2. <u>Inevitable Abortion</u>	severe	severe	open	blood + liquor.
3. <u>Mixed Abortion</u>	+ then	+ cease	closed.	Prod. of C. not expelled Blood. Fetal Death in Utero.
4. <u>Incomplete Abortion</u>	++	+++ very	Open.	Blood, foetus, part of placenta expelled. Will bleed white pl. in uterus.
5. <u>Complete Abortion</u>	+ ceases.	+ ceases.	Open, but later closed	Blood, foetus + placenta.

S+S: all types

Pain caused by contraction of ut.  
Haemorrhage.

State of os. - open or closed.

Expelled products.

Tr.: Trt. R.I.B. sedation, analgesics (Morph. + Peth.) - i.m. Prostag. helps.  
may become ↓  
/ phys. effect of maintaining  
developing ovum in ut. in early  
months.

Prev. R.I.B. - then - treat as thr. abort.  
or D. & C. if sure that inevitable.

Mixed.: - nothing - will expel foetus later  
- D. & C.

Incomplete - shock + haem. - R.I.B. Hb-checked - transf. if nec. (see sanguinal test)  
Tr. shock + Morphia + warmth, bed on blocks.  
Ergot if loss excessive  
When stabilised then D. & C.

Complete: same as ord. preg. R.I.B. 1 week. If find to bleed -  
Ergot foetus or i.m.  
Ergot helps ut. contract + stops bleeding.  
Emp. - to be satisfied that complete

GYMNAE.  
POSITIONS.

1. left lateral
2. Sims'
3. Dorsal
4. Trendelenburg
5. Semi-pectoral
6. reverse Trendelenburg.

PUERPERAL  
INFECTION

- Complications (short.)
1. septic endometritis
  2. septicæmia
  3. generalised peritonitis
  4. salpingitis and pelvic peritonitis
  5. parametritis and parametric abscess.
  6. pyæmia.

Combinations can occur.

Tr. Blood for culture.

swab  
urine (cath.)

X-P. + Sulphatriads until Lab. reports.

PRURITIS

- Acid. 'vag. discharge. 2. glycosuria or incontinence. 3. Thread-worms from anus  
4. uncleanliness 5. certain skin diseases 6. idiopathic.

Anterior colporrhaphy for cystocele.

Fothergill's - cystocele + ut. prolapse. Amputation of C<sub>x</sub>

lepto-perineorrhaphy - restis nuc. skin, -subo. coccygeus. -rectocele + ut. prolapse. R

Trachelorrhaphy - any operation that repairs a torn C<sub>x</sub>