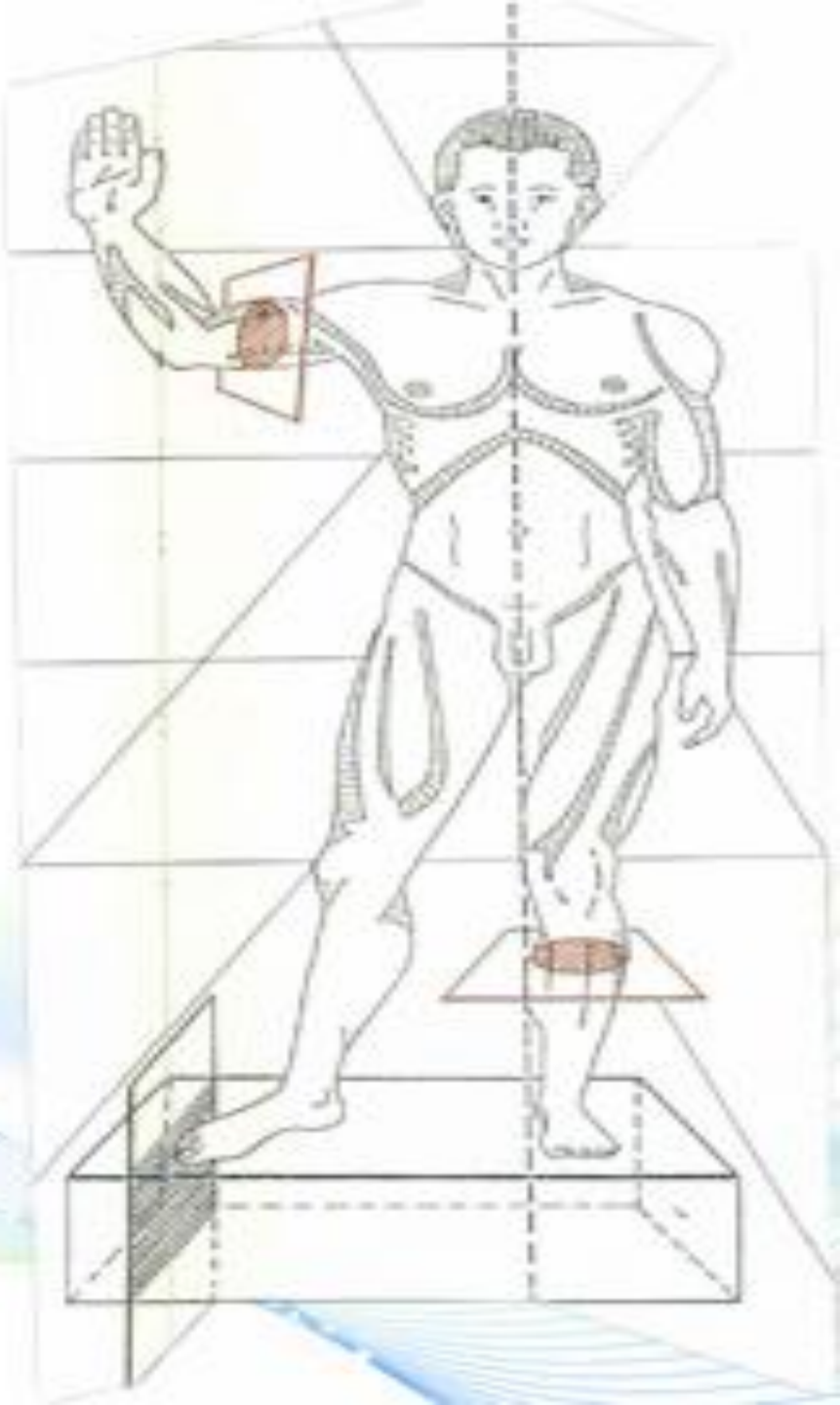
UTERINE TUBES



Pr M. D. EL AMRANI Dr BENTALEB Oussama Dr ERRAJI Imane

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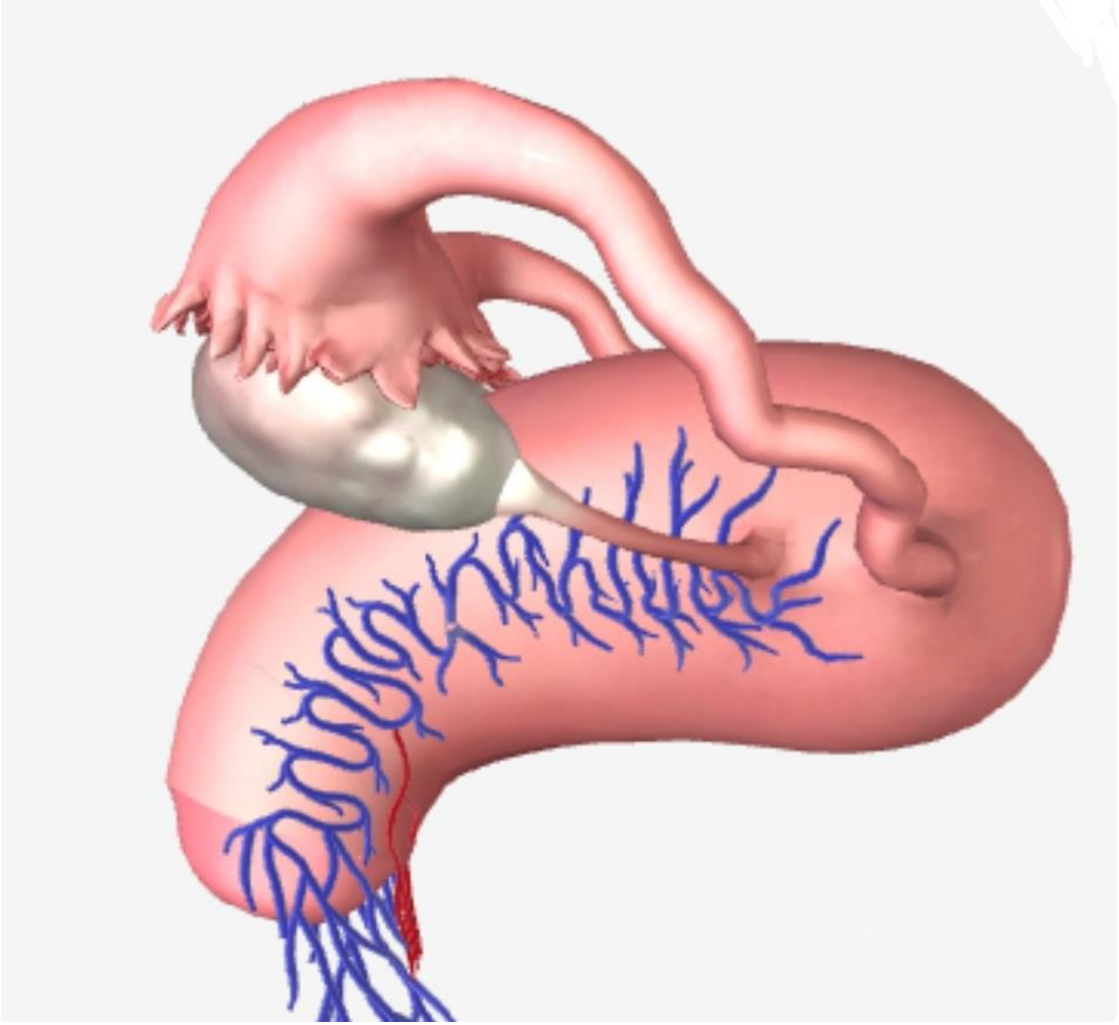
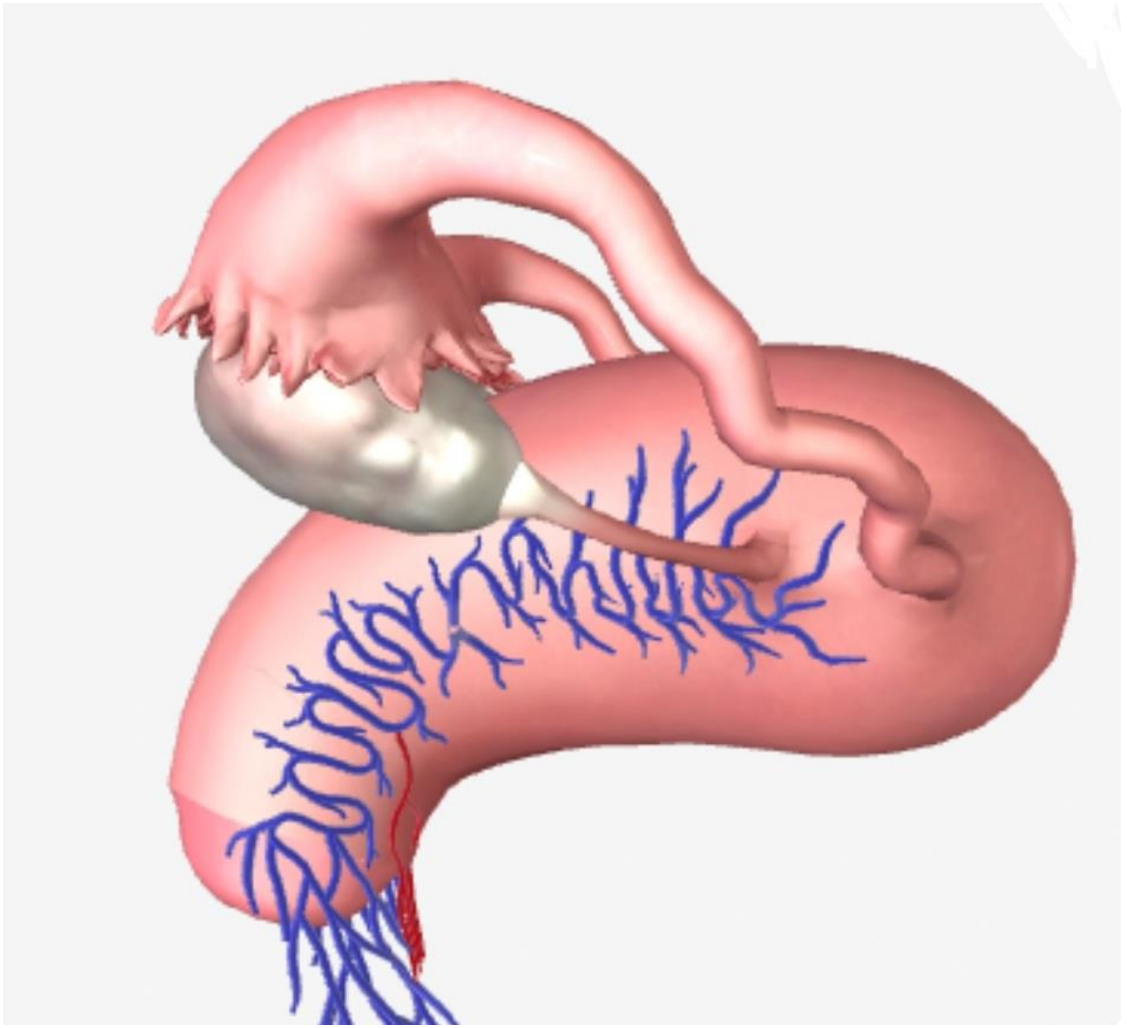


I. INTRODUCTION

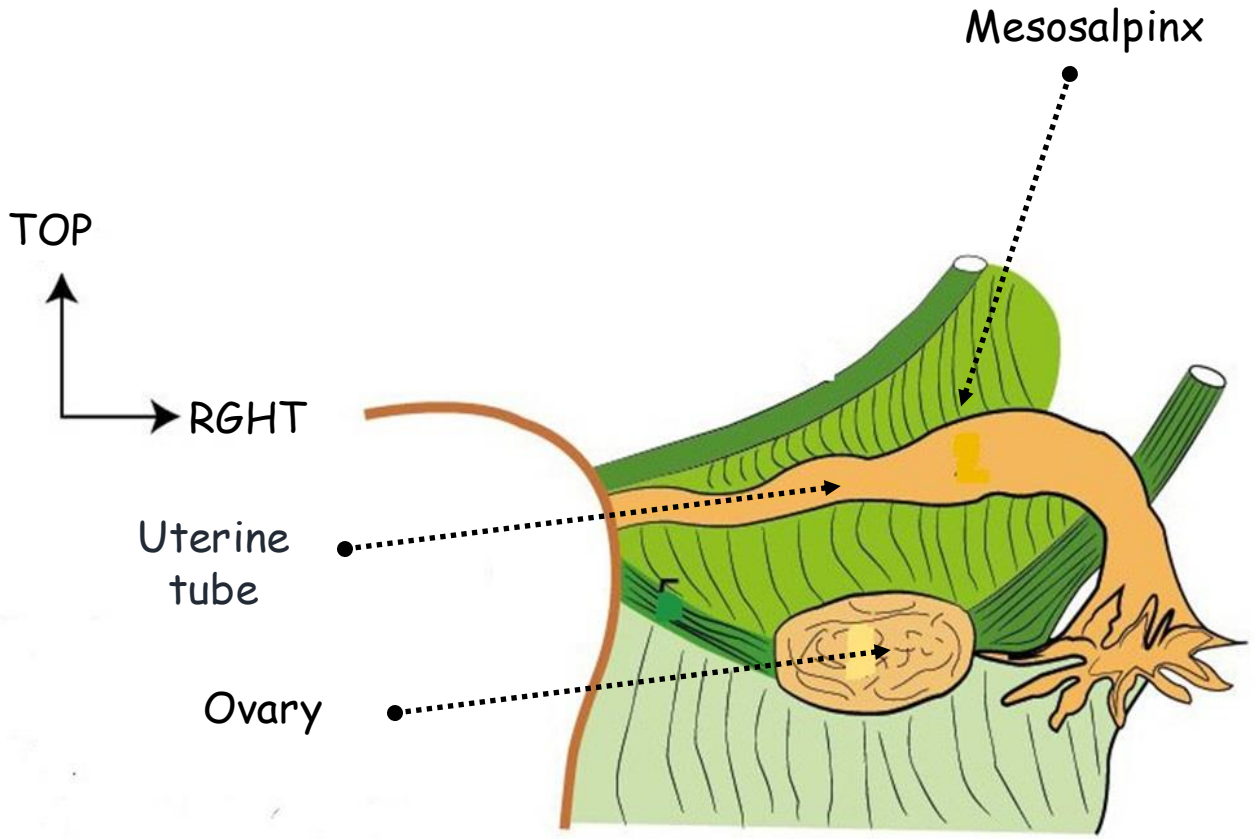
- Paired musculomembranous tubes emerging from the cornu to the lateral pelvic wall
- Site of fertilisation and transport of the zygote
- Communicate the uterine and peritoneal cavities



II. DESCRIPTIVE ANATOMY

A. SITUATION

- Lies in the upper edge of the broad ligament, the peritoneal fold embracing it being the mesosalpinx



POSTERIOR VIEW OF UTERINE TUBES WITH BROAD LIGAMENT DISPLAYED

B. SHAPE

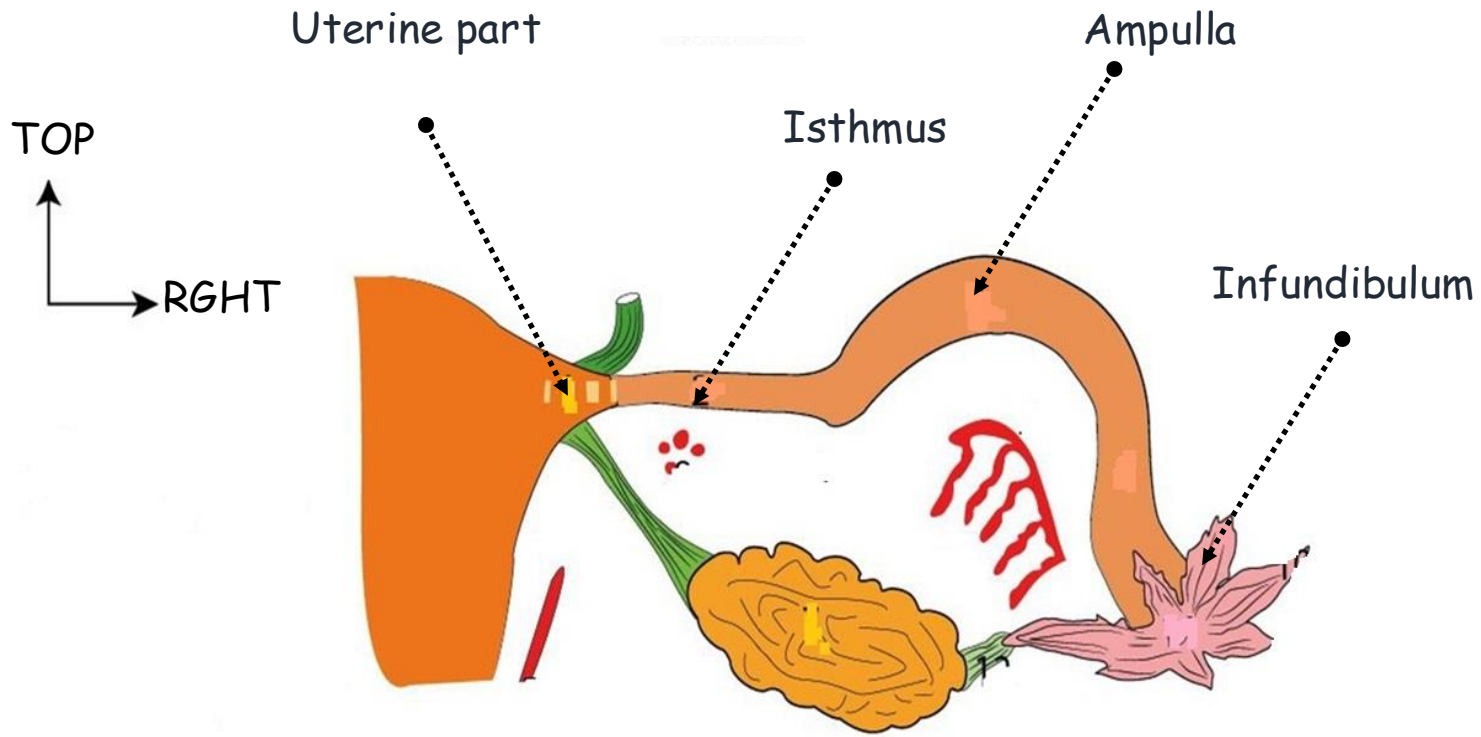
- Dark red coloured
- 4 parts:

-Uterine part: intramural, embedded in the uterine wall, emerge from the cornu

-Isthmus: straight and narrow

-Ampulla: wide

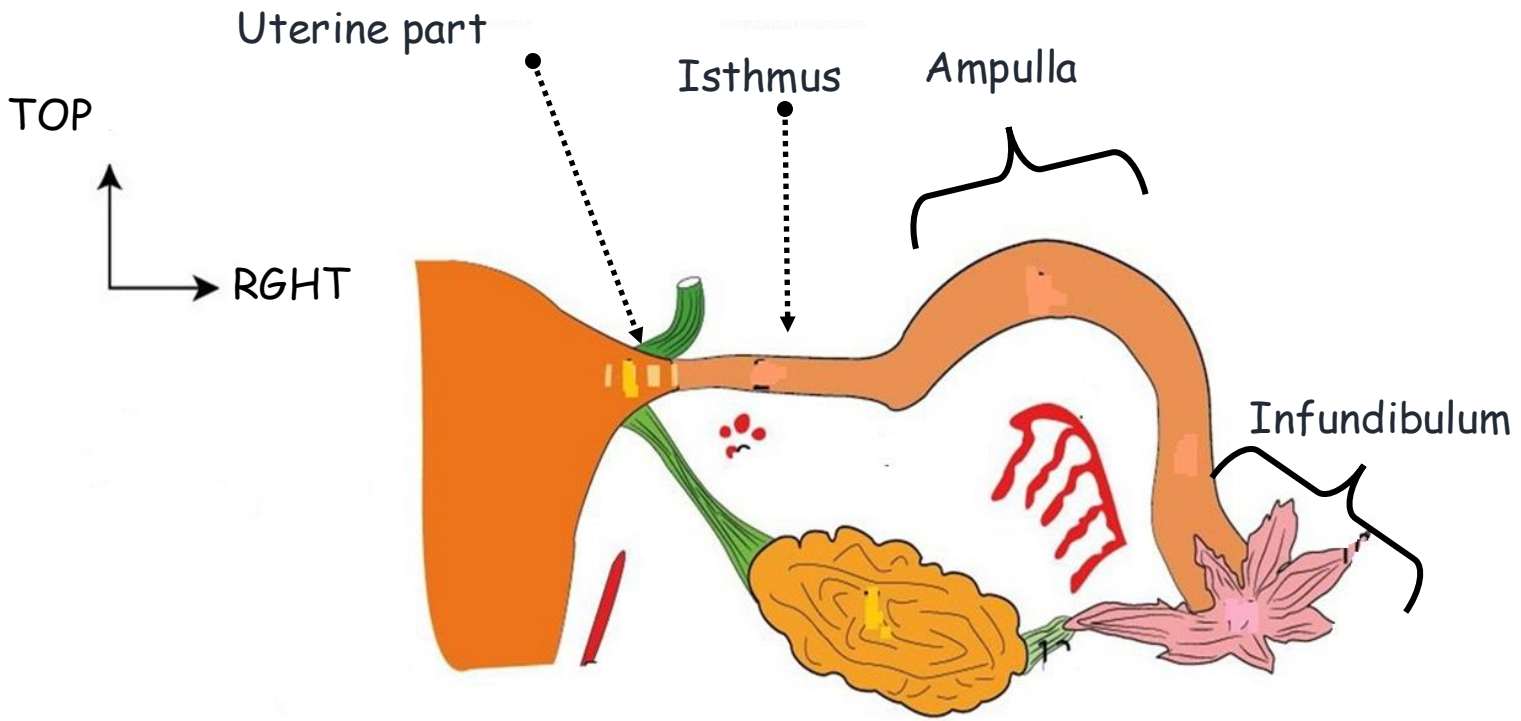
-Infundibulum: fimbriated open end behind the broad ligament adjacent to the lateral pelvic wall and ovary with a number of finger-like processes (trumpet-shaped expansion)



POSTERIOR VIEW OF UTERINE TUBES

C. DIMENSIONS

- Length: 12 to 15 cm
- Uterine part: 1 cm
- Isthmus: 3 to 4 cm
- Ampulla: 7 to 8 cm
- Infundibulum: 2 to 3 cm



POSTERIOR VIEW OF UTERINE TUBES

III. STRUCTURE

- **Serous coat:** covers the tube totally, continuous with the broad ligament

- **Subserosa:** contains vessels and nerves

- **Two layers of visceral muscle:**

  -**Outer:** longitudinal

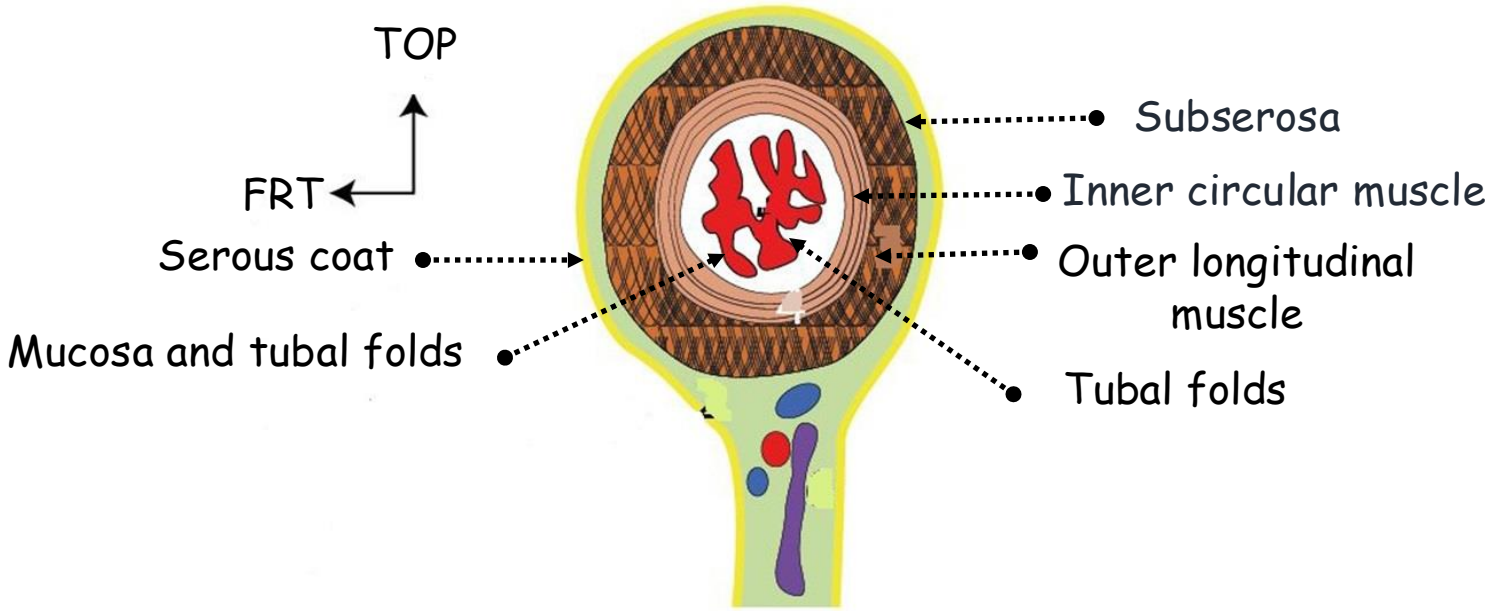
  - **Inner**: circular

- **Mucosa:**

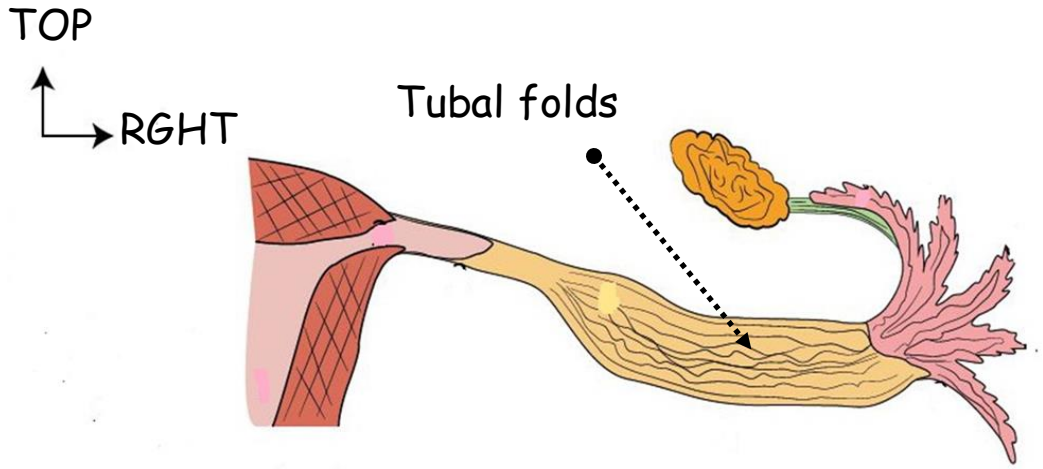
-Epithelium: ciliated and non-ciliated columnar cells.

-Continuous with the uterine mucosa through the cornu and with peritoneum through the infundibulum

-Macroscopic aspect: thrown into folds; they are sparse in the isthmus but become increasingly complicated as the ampulla is reached



SAGITTAL SECTION SHOWING THE STRUCTURE OF UTERINE TUBES



MACROSOCOPIC ASPECT OF TUBAL MUCOSA SHOWING TUBAL FOLDS

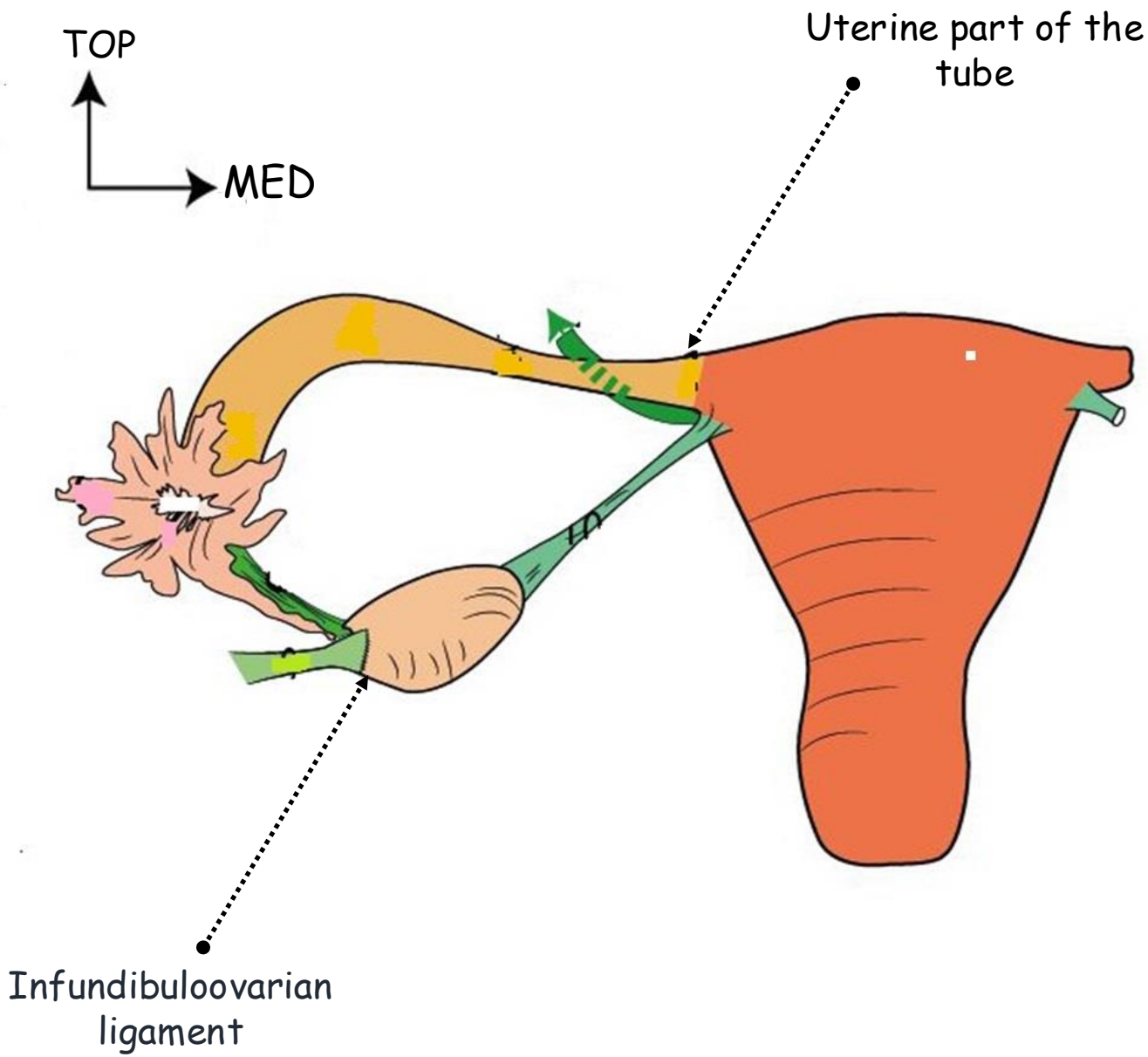
IV. SUPPORTS

- Very mobile
- Though, fixed by:

-**Uterus** : uterine part

-**Infundibuloovarian ligament**: fixes the infundibulum to the tubal end of the ovary and contains the longest finger-like process of the infundibulum, continuous with the infundibulopelvic ligament

-**Mesosalpinx**: peritoneal fold embracing the uterine tube, upper border of broad ligament



OVERVIEW OF SUPPORTS OF UTERINE TUBES

V. ANATOMICAL RELATIONS

1. Peritoneal relations:

- In the mesosalpinx
- Anastomosis between the tubal branch of ovarian artery and the uterine artery
- Anastomosis between the uterine veins and the ovarian veins
- Nerves of uterus and ovary
- Remnants of mesonephric tubules : epoophoron and paroophoron

2. Visceral relations:

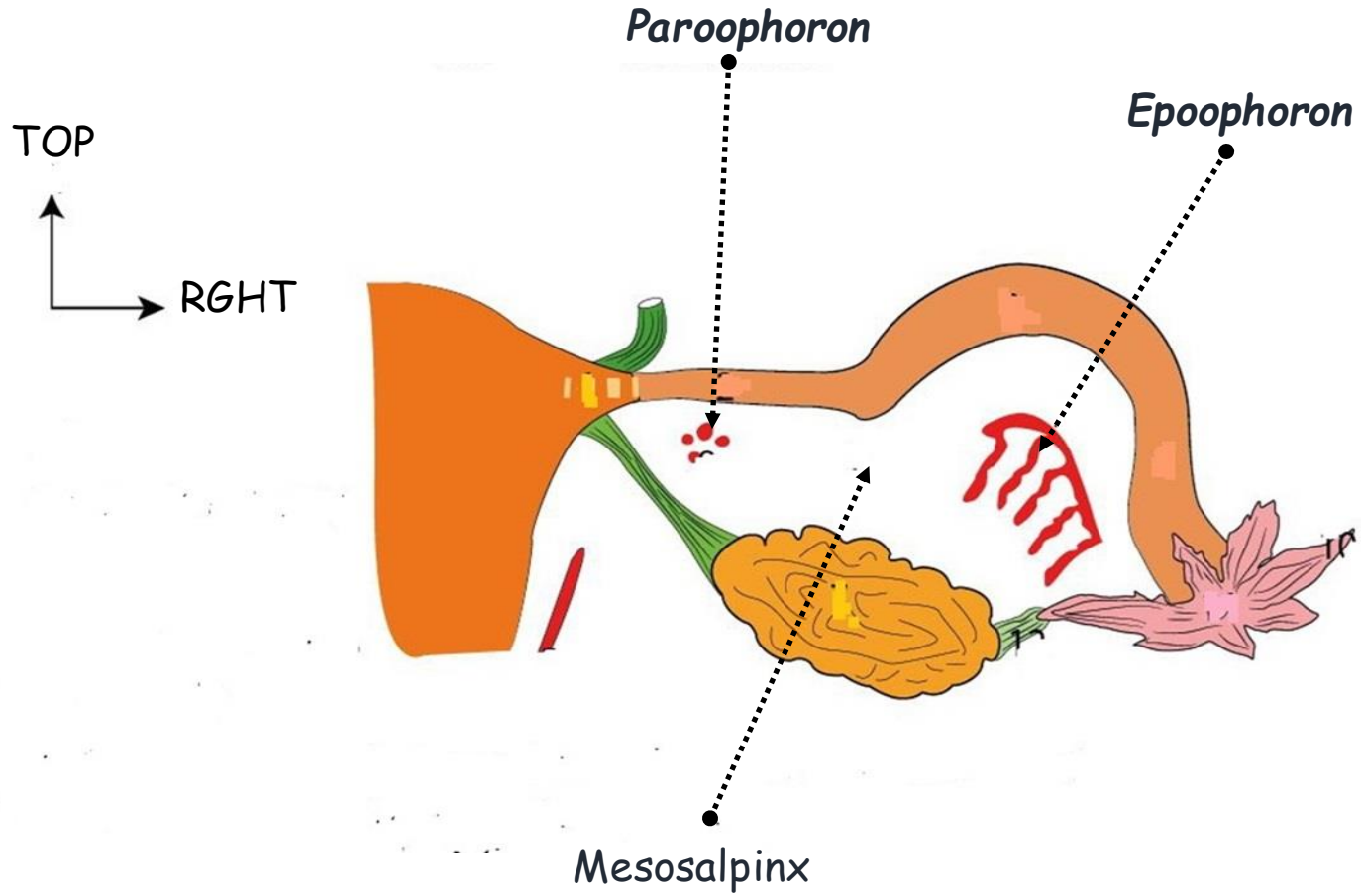
- Uterine part and isthmus:

  -Front: bladder and round ligament

  -Top: intestinal coils, greater omentum and sigmoid colon to the left

- Ampulla and infundibulum:

  -Top: sigmoid colon and sigmoid mesocolon to the left and caecum to the right (3 cm up)

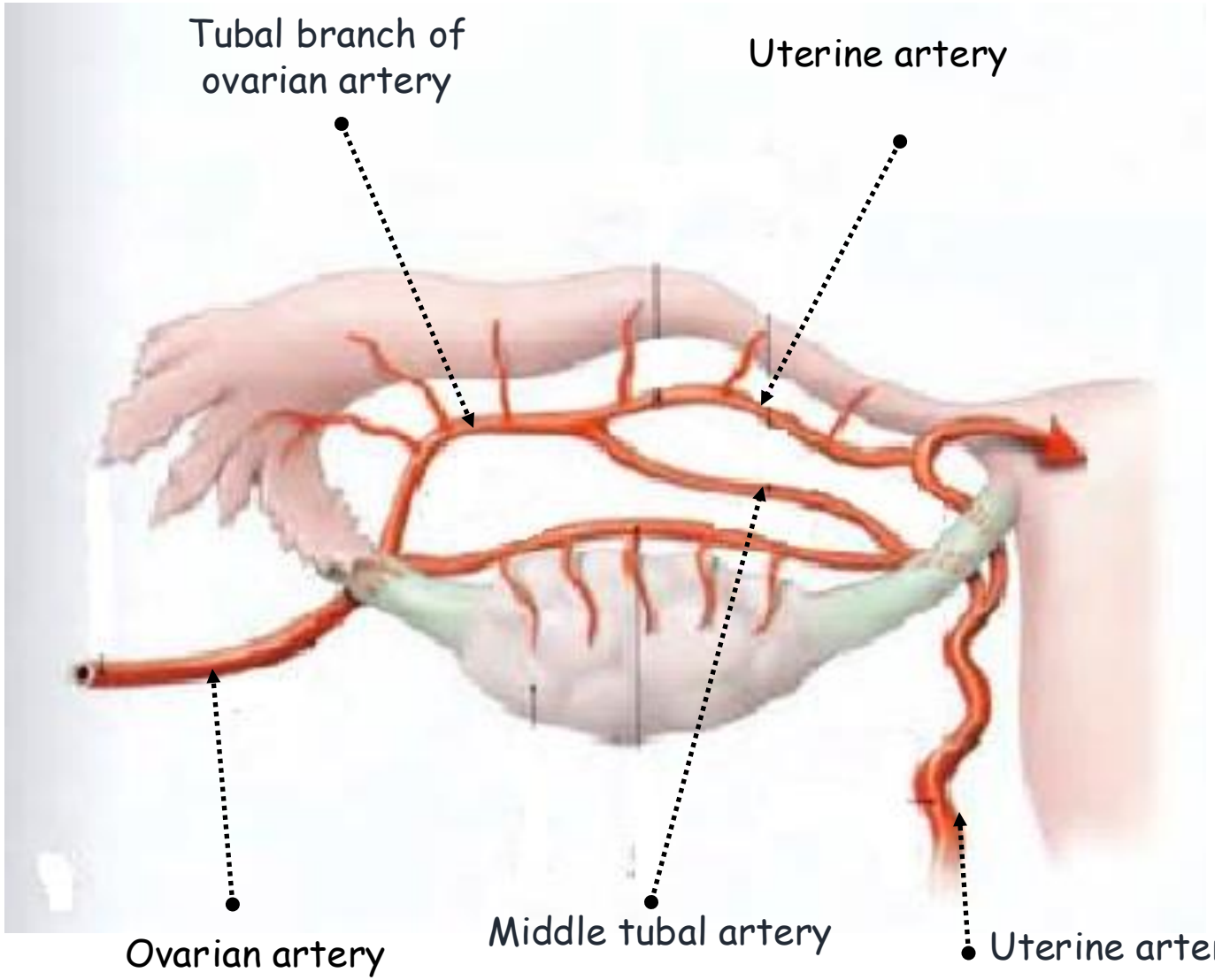


POSTERIOR VIEW OF THE RIGHT UTERINE TUBE

VI. BLOOD SUPPLY, LYMPH DRAINAGE AND NERVE SUPPLY

A. ARTERIES:

- 3 to 4 tubal branches arise from the upper side of the terminal part of the uterine artery supply the isthmus
- 3 to 4 branches arise from the upper side of the tubal branch of the ovarian artery supply the infundibulum
- The anastomosis between the uterine artery and the tubal branch of the ovarian artery forms the infratubal arterial circle
- The infratubal arterial circle runs below the tube, between the layers of the mesosalpinx (broad ligament)
- A collateral branch of the ovarian branch of the uterine artery, often, joins the infratubal circle



OVERVIEW OF THE ARTERIES OF THE UTERINE TUBES AND OVARIES

B. VEINS

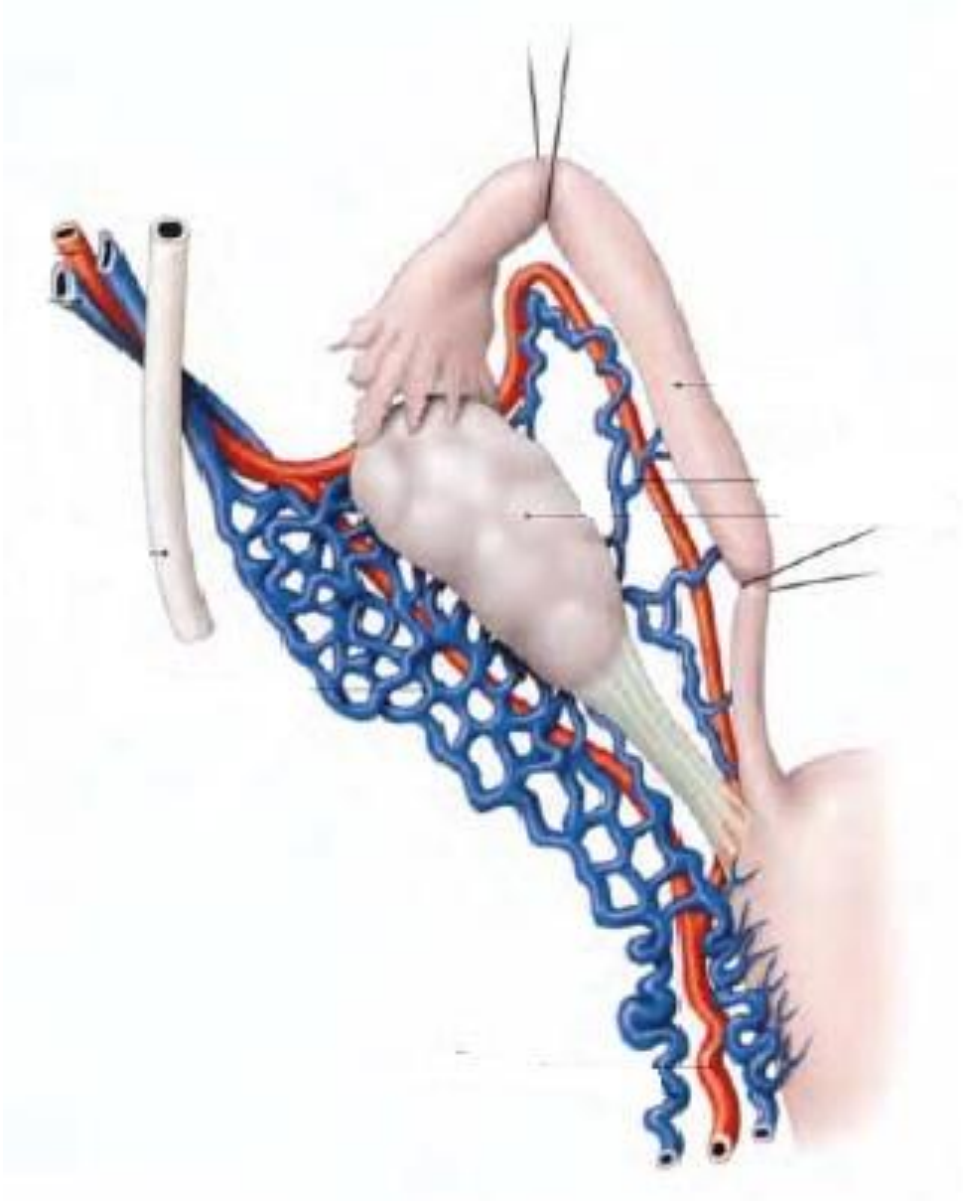
- The veins all correspond to the arteries and thus drain to the uterine and ovarian veins

C. LYMPH DRAINAGE

- Pass back along the veins to the lymph nodes of the body of the uterus mainly and the lymph nodes of the ovary secondarily

D. NERVES

- The nerves of the uterine tubes are branches from the inferior hypogastric plexus (T10-L1)



POSTERIOR VIEW SHOWING THE VEINS OF THE UTERINE TUBES

VII. CONCLUSION

- Site of fertilisation
- Occupies the upper edge of the broad ligament
- Several peritoneal and visceral relations
- Very mobile
- Rich anastomotic blood supply
- Lymph drainage is ensured mainly by the external iliac nodes


MARRAKECH
جامعة القاضي عياض
UNIVERSITÉ CADI AYYAD
كلية الطب
والصيدلة - مراكش
FACULTÉ DE MÉDECINE
ET DE PHARMACIE - MARRAKECH
ANATOMIE
FMPM