

Embryo !

Cryptorchidism means

☒ Undescended testis

☐ Maldescended testis

☐ Hydrocele

☐ Indirect inguinal hernia

Excellent

Primitive germ cells is derived from the yolk sac

☒ True



☐ False

The terminal part of penile urethra is endodermal in origin

☐ True

☒ False



past

Regarding development of genital system, Choose the WRONG statement:

- A. Urachal cyst is fluid-filled dilatation of the mid urachus
- B. The ureteric bud gives rise to collecting system of the kidney
- C. Ectopia vesicae is associated with the anterior wall of the bladder.
- D. The metanephric cap gives rise to nephron

Answer: C

Choose the WRONG match:

- A. Hypospadias—>the urethral orifice opens in the ventral aspect of the penis
- B. The caudal part of paramesonephric ducts—>forms the uterus and upper 3/5 of the vagina.
- C. Mullarian tubercle—>forms seminal colliculus
- D. Gubernaculum forms part of the—>Broad ligament

Answer: D

A newborn was present with swelling in the scrotum, clinical examination showed fluid around the testis. What best describes this case?

- A- Patent Processes Vaginalis
- B- Urine Incontinence
- C- Urachal Fistula
- D- Ectodermal Extravasation
- E- Patent Canal of Nuck

Ans: A

Which of the following structures is mesodermal in origin?

- A- Prostatic urethra
- B- Terminal part of glans penis
- C. Anterior wall of Female urethra
- D- Vas deferens
- E- Lower 2/5 of Vagina

Ans:D

Embryo1

1. Which structure induces the metanephric cap to form nephrons?

- a) Pronephric duct
- b) Urorectal septum
- c) Ureteric bud
- d) Cloacal membrane

Answer: c) Ureteric bud

2. The pronephric duct later becomes:

- a) Efferent ductules
- b) Mesonephric duct
- c) Ureter
- d) Trigone of the bladder

Answer: b) Mesonephric duct

3. Which part of the male reproductive system originates from the mesonephros?

- a) Seminiferous tubules
- b) Efferent ductules
- c) Prostate gland
- d) Bulbourethral glands

Answer: b) Efferent ductules

4. Horseshoe kidney is caused by fusion blocked by the:

- a) Celiac trunk
- b) Inferior mesenteric artery
- c) Superior mesenteric artery
- d) Median sacral artery

Answer: b) Inferior mesenteric artery

5. A bifid ureter results from:

- a) Failure of kidney ascent
- b) Bifurcation of the ureteric bud
- c) Persistent cloacal membrane
- d) Absent urorectal septum

Answer: b) Bifurcation of the ureteric bud

6. Which anomaly is linked to cysts in collecting ducts?

- a) Renal agenesis
- b) Congenital polycystic kidney
- c) Ectopic kidney
- d) Horseshoe kidney

Answer: b) Congenital polycystic kidney

7. The trigone of the bladder is derived from:

- a) Endodermal vesico-urethral canal
- b) Absorbed mesonephric ducts
- c) Cloacal membrane
- d) Allantois

Answer: b) Absorbed mesonephric ducts

8. Ectopia vesicae is often associated with:

- a) Horseshoe kidney
- b) Epispadias
- c) Hypospadias
- d) Urachal cyst

Answer: b) Epispadias

9. A patent urachus results in:

- a) Urine discharge from the umbilicus
- b) Bladder duplication
- c) Rectovesical fistula
- d) Pelvic kidney

Answer: a) Urine discharge from the umbilicus

Urethra Development

10. The terminal part of the male penile urethra originates from:

- a) Phallic urogenital sinus
- b) Ectodermal ingrowth
- c) Pelvic urogenital sinus
- d) Mesonephric duct

Answer: b) Ectodermal ingrowth

11. In females, the dorsal wall of the urethra is derived from:

- a) Endoderm
- b) Mesoderm (mesonephric ducts)
- c) Ectoderm
- d) Cloacal membrane

Answer: b) Mesoderm

12. The pelvic part of the definitive urogenital sinus in males forms the:

- a) Seminal vesicles

- b) Infracollicular prostatic urethra
- c) Trigone of the bladder
- d) Glans penis

Answer: b) Infracollicular prostatic urethra

13. In females, the phallic part of the urogenital sinus contributes to the:

- a) Vestibule of the vagina
- b) Upper vagina
- c) Uterus
- d) Urethra

Answer: a) Vestibule of the vagina

14. Postnatal kidney ascent is accompanied by:

- a) Lateral rotation of the hilum
- b) Medial rotation of the hilum
- c) Persistence of lobulation
- d) Loss of renal arteries

Answer: b) Medial rotation of the hilum

15. Which structure becomes the median umbilical ligament?

- a) Mesonephric duct
- b) Urachus
- c) Cloacal membrane
- d) Urorectal septum

Answer: b) Urachus

Embryo2

1. The gonads develop from all the following sources EXCEPT:

- A) Proliferating coelomic epithelium

- B) Adjacent mesenchyme
- C) Primordial germ cells
- D) Neural crest cells

Answer: D) Neural crest cells

2. During the indifferent stage (up to 6th-7th week), the developing gonad:

- A) Is already a testis
- B) Is already an ovary
- C) Cannot be differentiated as testis or ovary
- D) Has only mesonephric ducts

Answer: C) Cannot be differentiated as testis or ovary

3. The testis determining factor (TDF) is located on:

- A) X chromosome
- B) Y chromosome
- C) Chromosome 21
- D) Mitochondrial DNA

Answer: B) Y chromosome

4. Sertoli cells in the testis are responsible for synthesizing:

- A) Testosterone
- B) Mullerian Inhibitory Factor (MIF)
- C) Estrogen
- D) Gonadotropins

Answer: B) Mullerian Inhibitory Factor (MIF)

5. The gubernaculum aids in:

- A) Formation of the broad ligament
- B) Descent of the testis
- C) Formation of the renal cortex

D) Formation of the ovarian follicles

Answer: B) Descent of the testis

6. Which of the following is NOT a congenital anomaly related to testicular descent?

A) Cryptorchidism

B) Ectopic testis

C) Hydrocele

D) Polycystic ovary

Answer: D) Polycystic ovary

7. The round ligament of the uterus is derived from:

A) Mesonephric duct

B) Gubernaculum

C) Urogenital sinus

D) Paramesonephric duct

Answer: B) Gubernaculum

8. The upper 3/5 of the vagina develops from:

A) Urogenital sinus

B) Paramesonephric (Müllerian) duct

C) Mesonephric (Wolffian) duct

D) Vaginal plate

Answer: B) Paramesonephric (Müllerian) duct

9. In the male, the paramesonephric (Müllerian) ducts:

A) Develop into the uterine tubes

B) Regress under the effect of MIF

C) Form the epididymis

D) Form the prostate gland

Answer: B) Regress under the effect of MIF

10. The broad ligament of the uterus is formed by:

- A) Mesonephric ducts
- B) Fusion of paramesonephric ducts and peritoneal folds
- C) Gubernaculum
- D) Urogenital sinus

Answer: B) Fusion of paramesonephric ducts and peritoneal folds

11. Which structure forms the corpus spongiosum of the penis?

- A) Genital tubercle
- B) Mesenchyme of the urethral folds
- C) Genital swellings
- D) Paramesonephric duct

Answer: B) Mesenchyme of the urethral folds

12. Hypospadias is due to:

- A) Incomplete fusion of the urethral folds
- B) Failure of gubernaculum shortening
- C) Persistence of the processus vaginalis
- D) Failure of the vaginal plate to canalize

Answer: A) Incomplete fusion of the urethral folds

13. The clitoris develops from:

- A) Genital tubercle
- B) Urethral folds
- C) Genital swellings
- D) Urogenital sinus

Answer: A) Genital tubercle

14. The canal of Nuck is related to:

- A) Persistence of processus vaginalis in females

B) Failure of gubernaculum to shorten

C) Non-fusion of urethral folds

D) Formation of the broad ligament

Answer: A) Persistence of processus vaginalis in females

15. Which of the following is a congenital anomaly of the female genital tract?

A) Uterus bicornis

B) Hydrocele

C) Epispadias

D) Cryptorchidism

Answer: A) Uterus bicornis