

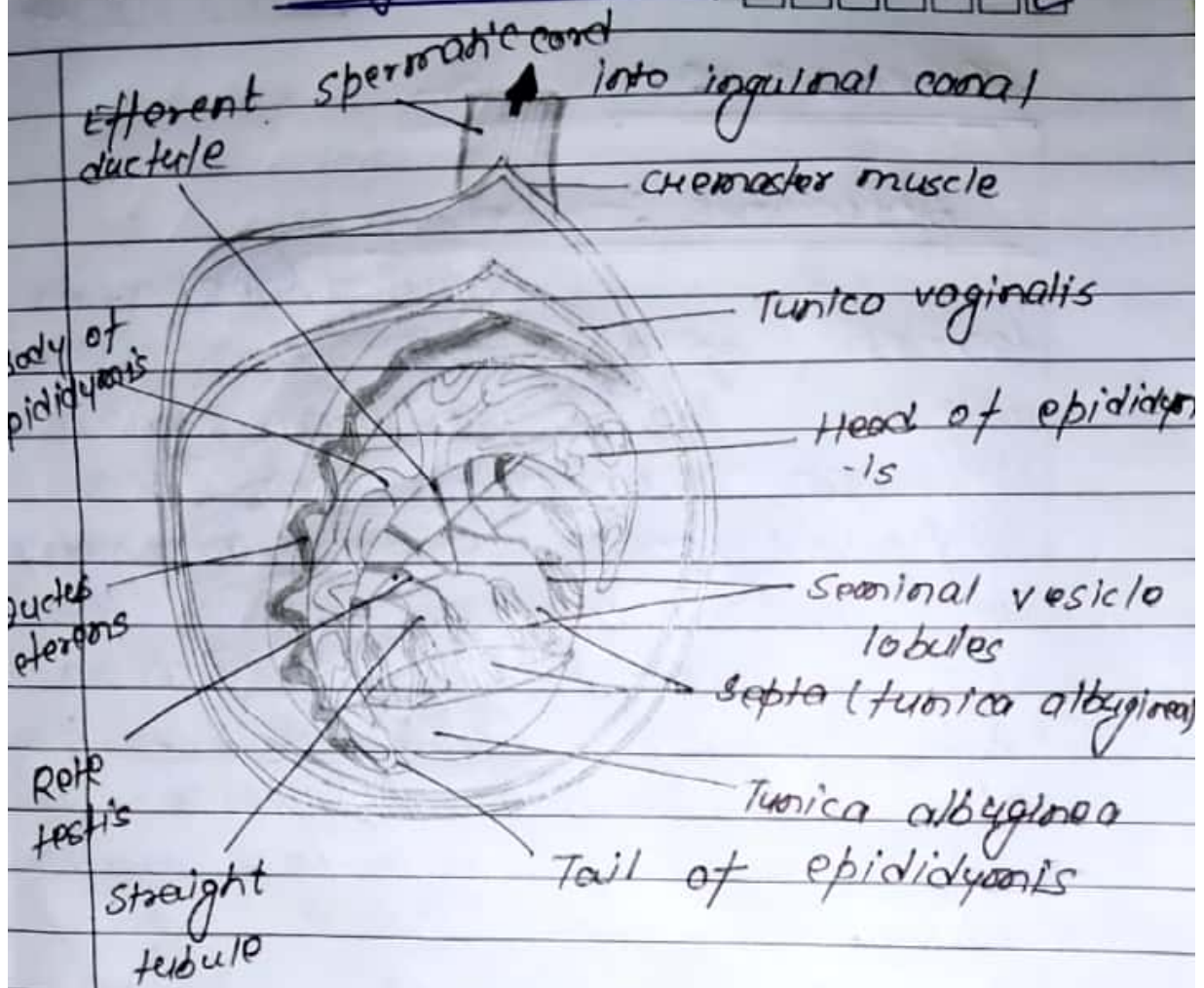
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-ssor and head, U.G. Department
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(BUDAW), Notes on B.Sc part
3rd, paper V.

Q. :- Write Notes on PHYSIOLOGY
OF TESTICULAR CYCLE?

Ans:- Testicle :-

Testicle or testis
(plural testes) is the male
reproductive gland or gonad in
all animals, including humans.
It is homologous to the
female ovary. The functions
of the testes are to
produce both sperm and
androgens, primarily testosterone.
Testosterone release is controlled
by the anterior pituitary luteini-
zing hormone; whereas sperm
production is controlled both
by the anterior pituitary follicle
-stimulating hormone and gonad-
-otrophic testosterone.

testicle



Details

Artery	Testicular artery
Vein	Testicular vein, pampiniform plexus
Nerve	sympathetic plexus
Lymph	lumbar lymph nodes

Identifiers

Latin	testis
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Structure :-Appearance :-

Males have two testes of similar size contained within the scrotum, which is an extension of the abdominal wall. Scrotal asymmetry is not unusual: one testicle extends farther down into the scrotum than the other due to differences in the anatomy of the vasculature.

Measurement :-

The volume of the testicle can be estimated by palpating it and comparing it to ellipsoids of known sizes. Another method is to use calipers (an orchidometer) or a ruler either on the person or on an ultrasound image to obtain the three measurements of the x, y, and z axes (length, depth and width). These measurements can then be used to

calculate the volume, using the formula for the volume of an ellipsoid:

$$\text{volume} = \frac{4}{3} \cdot \pi \cdot \frac{\text{length}}{2} \cdot \frac{\text{width}}{2} \cdot \frac{\text{depth}}{2}$$

$$\approx \text{length} \cdot \text{width} \cdot \text{depth} \cdot 0.52$$

The dimensions of the average adult testicle are up to 2 inches long, 0.8 inches in breadth, and 1.2 inches in height (5x2x3 cm). The Tanner scale for the maturity of male genitals assigns a maturity stage to the calculated volume ranging from stage I, a volume of less than 1.5 ml; to stage V, a volume greater than 20 ml. Normal volume is 15 to 25 ml; the average is 18 cm³ per testis (range 12 cm³ to 30 cm³).

Duct system :-

The testes are covered by a tough membrane - 'tunica' shell called the tunica-

Other animals :-

External appearance

In

sharks, the testicle on the right side is usually larger, and in many bird and mammal species, the left may be the larger. The primitive jawless fish have only a single testis, located in the midline of the body, although even this forms from the fusion of paired structures in the embryo.

See also :-

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| <ul style="list-style-type: none"> • Anorchia • Ballocks • castration • Cryptorchidism • Ejaculation • Epididymis • Eunuchs • Coddling • infertility • Neutering | <ul style="list-style-type: none"> • Orchidometer • Penis • Prineum • Polyorchidism • Spermatic cord • spermatogenesis • Testicles as food • Testicondy • Testicular nubbin • Testosterone |
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