

vulva of female as a result of which the male and female opening lie against each other. The cloacal wall contracts and the sperms are then pass into the vagina of the female. The sperm then travel to the oviduct via uteri by amoeboid movement. As the ova pass down the oviduct they are fertilized. Each egg is surrounded by a thick, clear chitinous egg shell covered by albuminous coat. The eggs are round or oval ($60\mu \times 45\mu$), light brown in colour.

The fertilized eggs are pass out along the faeces and are deposited on the ground and undergo segmentation or cleavage.

Segmentation (Cleavage)

- i) The spiral and aeterminate type of cleavage takes place. The first transverse division form an upper dorsal (D) and lower ventral (V) cell.
- ii) The upper one divide by vertical division forming an ^{anterior} upper (A) and posterior (P) cell.
- iii) The ventral cell (V) now divide transversely to form an upper (EM) and a lower cell (V_1).
- iv) The embryo is now T-shaped.
- v) Lower cell (V_1) moves towards right as a result (EM) comes forward in front of it.
- vi) (A) and (P) divide to form endoderm of embryo.
- vii) EM divide to form (E) & (M), (V_1) divide to form V_2 and C.
- viii) E divide to form endoderm (E_1 and E_2) and (M) forms the mesoderm.
- ix) V_2 divide to form V_3 & D cells.
- x) A, C & D divide to form ectoderm.
- xi) V_3 by division form germ cells (G_1 & G_2).

Thus a blastula is formed which changes into first stage larva (Rhabditoid Stage) under favourable condition of temperature ($21^{\circ}-30^{\circ}\text{C}$) within the egg.

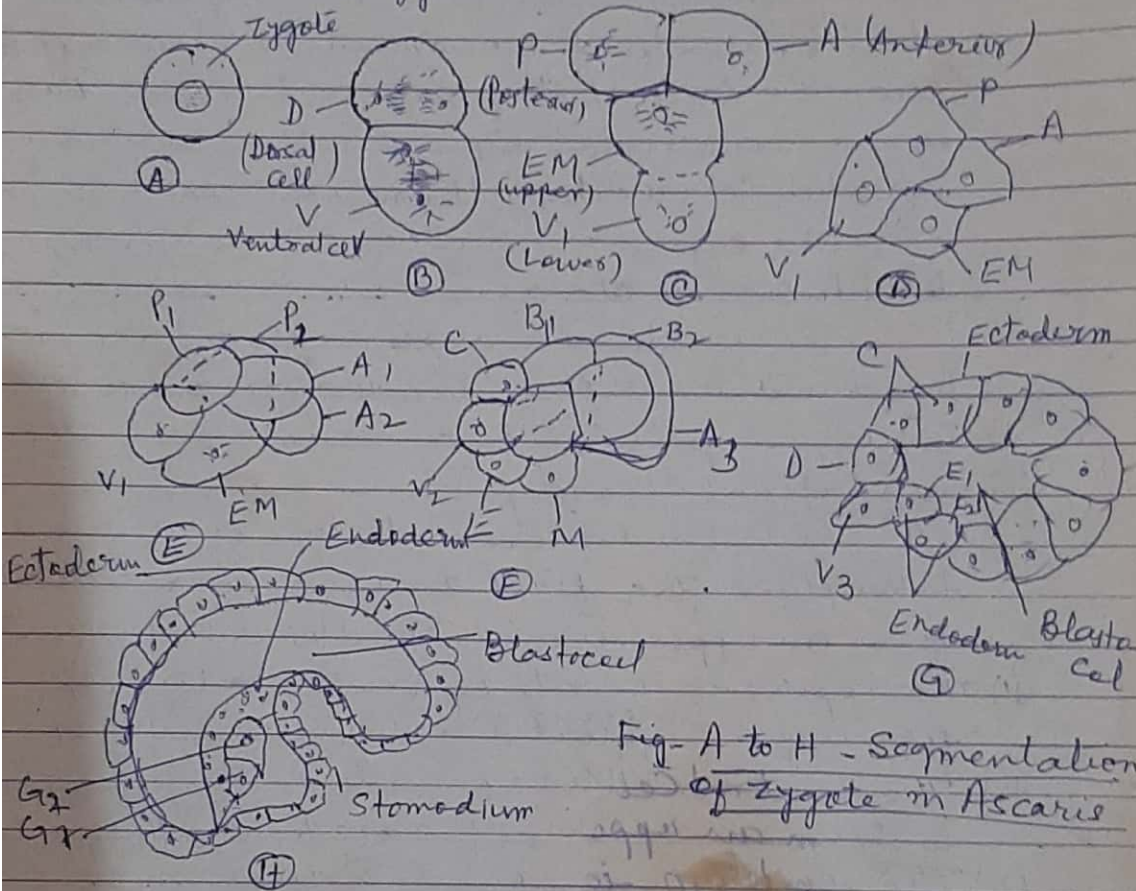


Fig- A to H - Segmentation of zygote in Ascaris

Within the egg moulting takes place after a week and the first stage larva is characterized by changed to second stage larva called rhabditiform larva which is the infective stage of Ascaris.

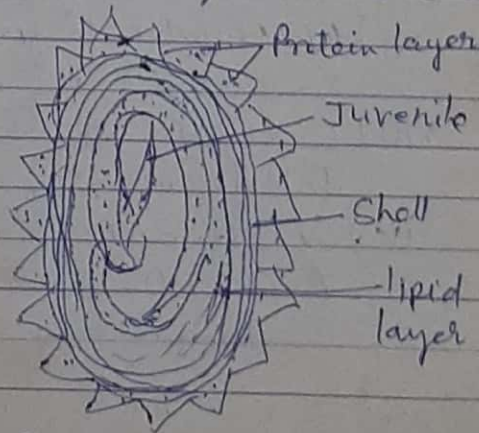


Fig- Rhabditiform Larva

Infection and Emergence of Larva:

The eggs containing rhabditiform larva contaminate food and water. If someone takes this containing water the eggs reach the healthy man. The shell of the egg is weakened in oesophagus and is dissolved in the intestine of the new host. The larva is about 200-300µ in length and 14µ in breadth. It has fully formed alimentary canal, excretory and nervous system.

Migration of Larva:

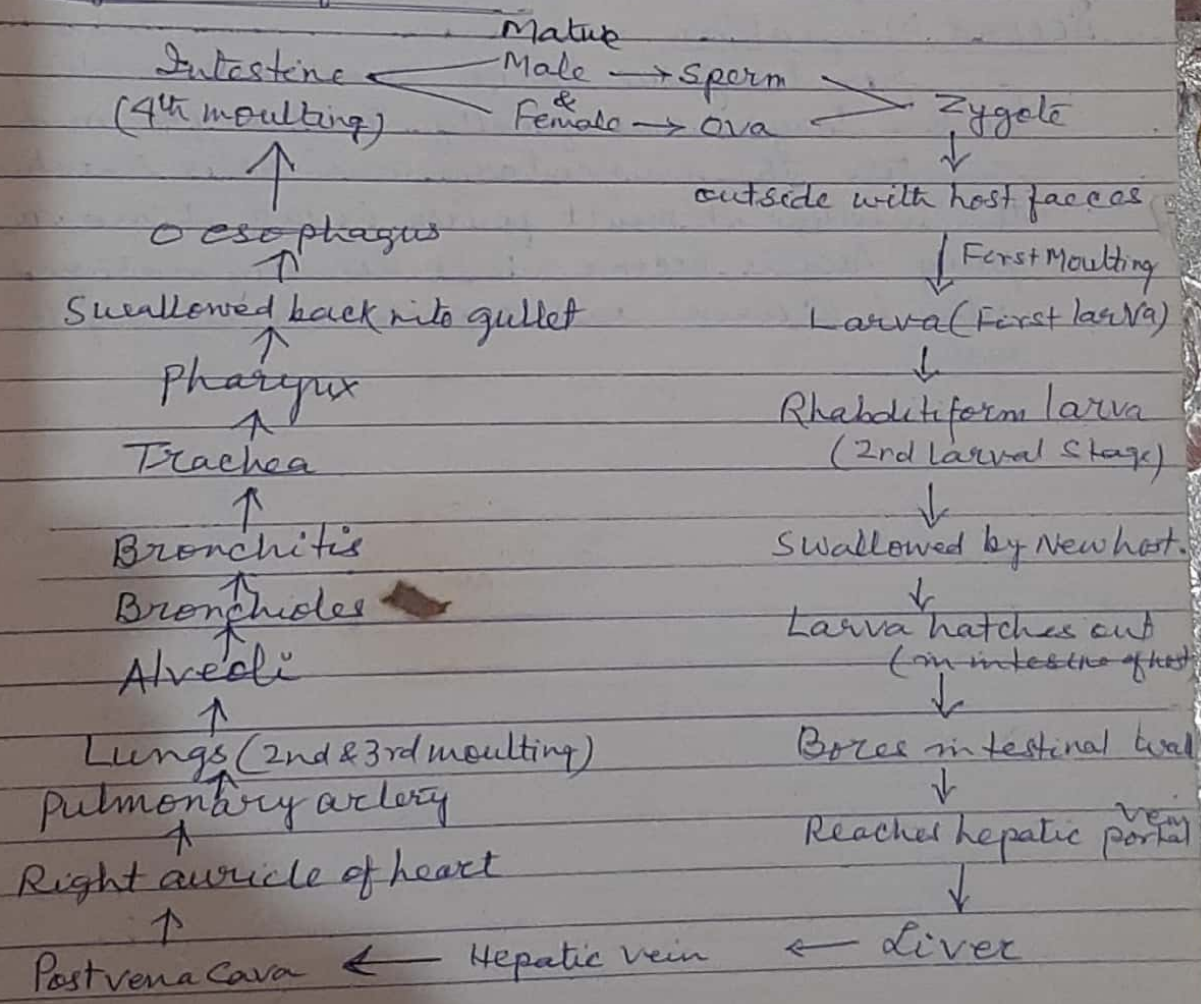


Fig - Diagrammatic representation of the life cycle of Ascaris.