



كلية الرشيد الجامعة قسم تقنيات المختبرات الطبية الطفيليات الطبية

Ascaris lambricoides
المرحلة الثانية – النظري

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Class: Nematoda

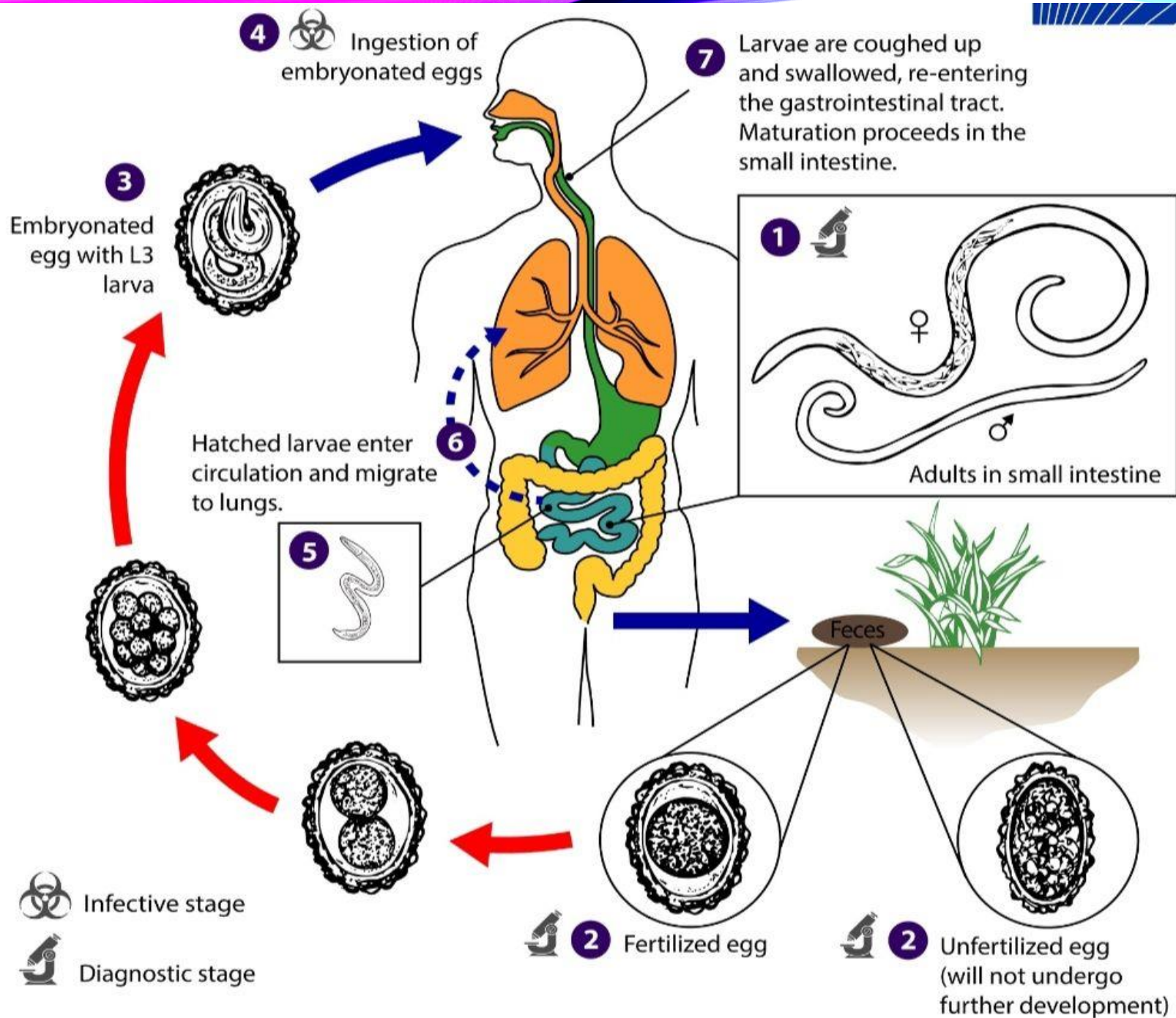
ASCARIS LAMBRICOIDES

- ❖ **Definitive host: human.**
- ❖ **No Intermediate host.**
- ❖ **Disease: Ascariasis**
- ❖ **Habitat: Adult worms live in the small intestines (85% in jejunum and 15% in ileum).**



LIFE CYCLE

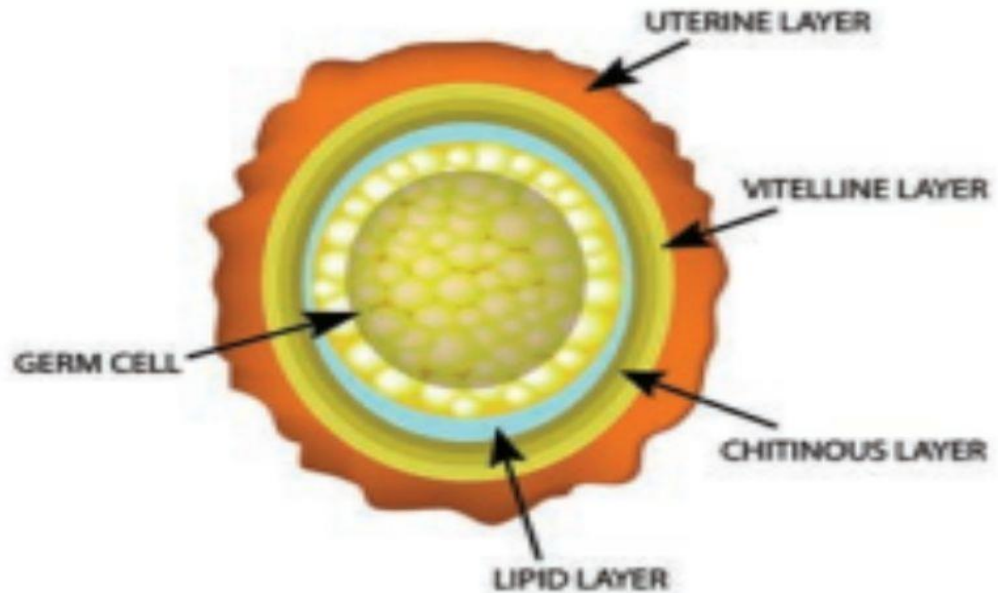
Ingested eggs hatch in the duodenum. The larvae(Rhabditiform larva). penetrate the intestinal wall and circulate in the blood. From the heart they migrate to the lungs, ascend to the trachea, descend to the esophagus and finally reach the small intestine to become adult. The female pass immature eggs which pass to the soil and mature in 2 weeks.



THE TYPES OF EGG

1-Fertilized Egg: The fertilized eggs are produced by fertilized females. the eggs are round in shape and measures 45 μm in length and 35 μm to 50 μm in breadth. they are bile – stained and appear as golden brown (brownish) in color.

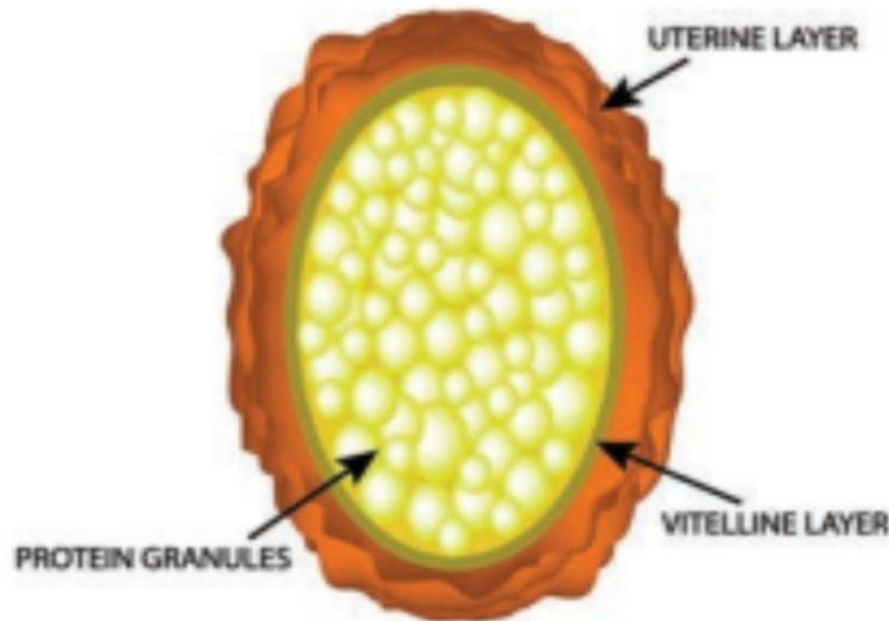
the egg is surrounded by a thick smooth shell with an outer albuminous coat (corticated eggs).



**EGG OF ASCARID
FERTILIZED**

THE TYPES OF EGG

2- Unfertilized egg: The female even not fertilized by male is capable of liberating eggs. these unfertilized eggs are narrower, longer and elliptical in shape. these are heaviest of all the helminthic eggs – It measures about $80\mu\text{m} \times 105\mu\text{m}$ in size. the eggs have a thinner shell with an irregular coating of albumin



**EGG OF ASCARIS
UNFERTILIZED**

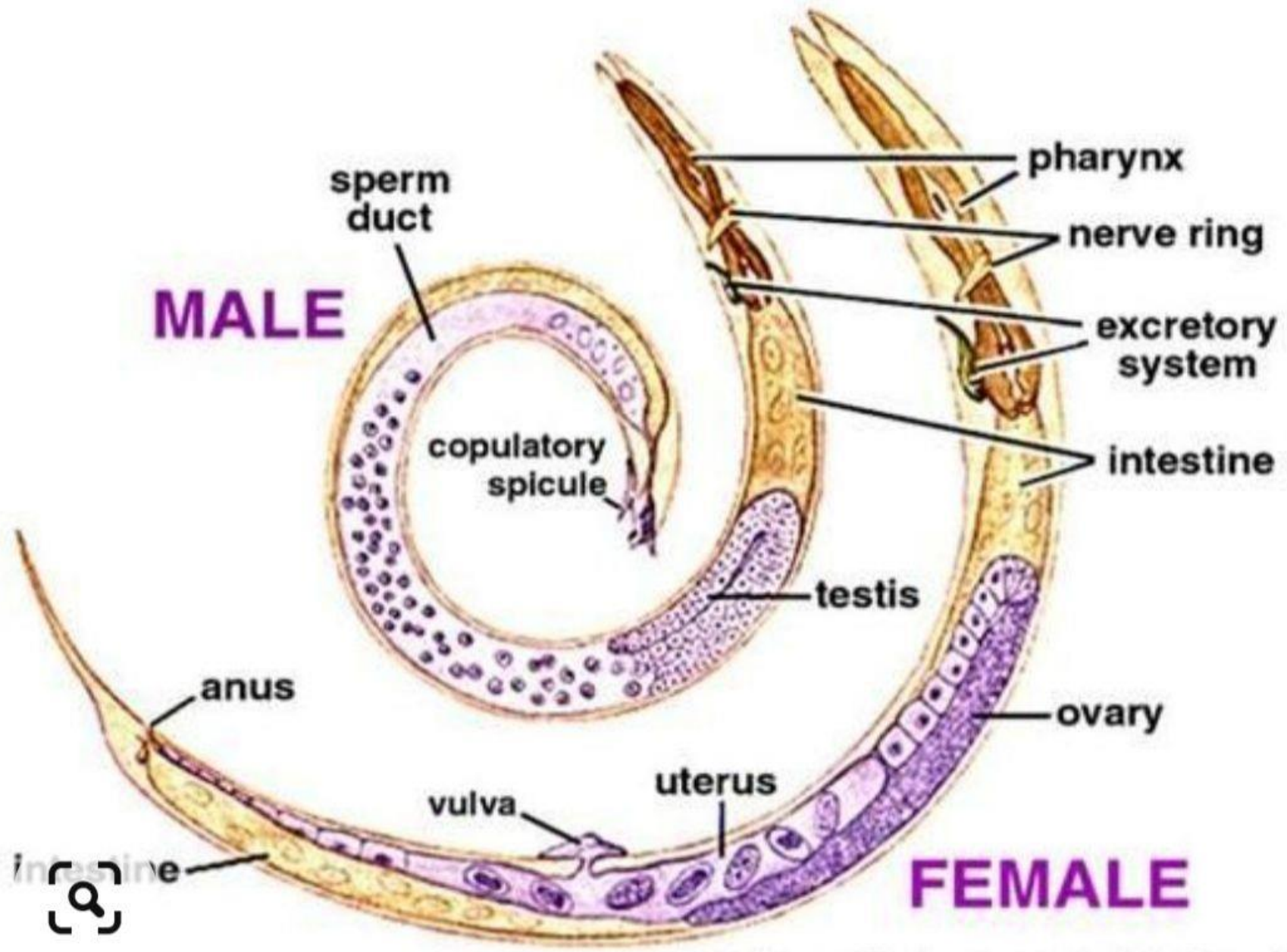
THE ADULT WORM PARTS

Male worm

- **The adult male worm is smaller than female worms. The tail – end (Posterior end) of the male worm is curved ventrally to form a hook and 2 curved copulatory spicules.**

Female worm

- **The adult female worm is larger (20-40 cm) and thicker (3-6 mm) than male worm. the posterior end is conical and straight. the anus is in the sub terminal part and opens like a transverse slit on the ventral surface. a single worm lays up to 200,000 eggs per day**



SYMPTOMS

1. Allergic manifestation (due to migrating larva):

Minute hemorrhage occurs in the lungs especially if the affection is severe , cough , bronchial irritation , asthma , sputum may contain larvae , conjunctivitis , face oedema.

2. Gastrointestinal manifestations (due to adult worms): dyspepsia, anorexia, vomiting, diarrhea.

3. Mechanical complication(due to giant worms): so migrate to other organs causing obstruction, obstructive jaundice (common bile duct) *pancreatitis , obstruct the pancreatic duct*intestinal obstruction , in children , due to impacted worms in intestine.

DIAGNOSIS

1. Examination of stool for eggs by direct saline smear method.
2. Demonstration of adult worms.

