

## **Digestive System of Uromastix-2**

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### **6. Small Intestine:**

It is a long, narrow, coiled tube and comprises an anterior duodenum and a posterior ileum.

#### **a. Duodenum:**

The duodenum with the stomach forms a U-shaped structure. In between the duodenum and stomach is present the pancreas. The duodenum receives the bile and pancreatic duct.

#### **b. Ileum:**

The ileum is a long coiled tube and merged imperceptibly with the duodenum. The ileum is attached to the dorsal wall of the coelom by the dorsal mesentery which runs along the coils.

### **7. Large Intestine:**

The large intestine consists of a proximal colon and a distal rectum.

#### **a. Colon:**

The thin-walled colon comprises the large proximal portion into which the ileum opens directly and a distal narrower tubular portion which leads into the rectum. The proximal and distal portions of the colon are attached with the dorsal wall of the coelom by the dorsal mesentery. A blind pouch, the caecum, arises from the junction of the ileum and colon.

At the junction of ileum and caecum internally is present the ileo-coecal valve. The walls of colon and caecum are thin so their contents are visible through them. Within the colon the water is absorbed and faeces is formed.

#### **b. Rectum:**

The colon is continued into the tubular and narrower rectum. The rectum is very much thick-walled. It takes a sharp curve upwards

towards the left and again turns sharply in the posterior direction.

### **8. Cloaca:**

The cloaca is divisible internally into three chambers, the coprodaeum, the urodaeum and the proctodaeum.

The faeces is stored in the rectum. The rectum opens into the cloaca and both are separated by a sphincter. The cloaca opens to the exterior by the cloacal opening.

### **Digestive Glands:**

**In uromastix, the digestive glands associated with the alimentary canal are:**

(i) Gastric glands,

(ii) Liver,

(iii) Pancreas, and

(iv) Intestinal glands.

#### **(i) Gastric Glands:**

The gastric glands are microscopic, simple or branched pits in the mucous membrane of the stomach. Since they are microscopic, they are, therefore, not visible. These glands discharge gastric juice into the cavity of stomach.

#### **(ii) Liver:**

The liver is a large dark brownish-red gland situated a little posterior to the heart between the lungs. It is connected with the stomach by a thin membranous fold, the gastrohepatic omentum.

The liver consists of three lobes- right, left and dorsal. The right lobe is long and narrow extending up to the right gonad. The left lobe is short and broad lying ventral to the cardiac stomach. The dorsal lobe is small, found attached to the dorsal side of the left lobe. The gall bladder is a small rounded sac situated ventrally on the posterior end of the junction between the left and right lobes of the liver. The liver cells secrete bile which is stored in gall bladder. A cystic duct arising from the dorsal side of the gall bladder and a

hepatic duct arising from the right lobe of the liver join to form the first bile duct.

It also receives another hepatic duct from the dorsal lobe of the liver and then runs backwards to open into the beginning of the duodenum. A second bile duct originates from the left lobe of the liver, and opens into the duodenum independently. Both the bile ducts discharge their contents into the duodenum behind the opening of the pancreatic duct.

**(iii) Pancreas:**

The pancreas is a white, elongated, narrow, band-like gland, which lies along the pyloric stomach in between duodenum and the stomach. The pancreatic duct originates from the posterior end of the pancreas and opens into the duodenum just in front of the openings of the bile ducts. The pancreas secretes pancreatic juice.

**iv) Intestinal Glands:**

The intestinal glands are found in the mucosa of the small intestine. These glands are numerous, microscopic and invisible. They secrete intestinal juice into the lumen of the small intestine