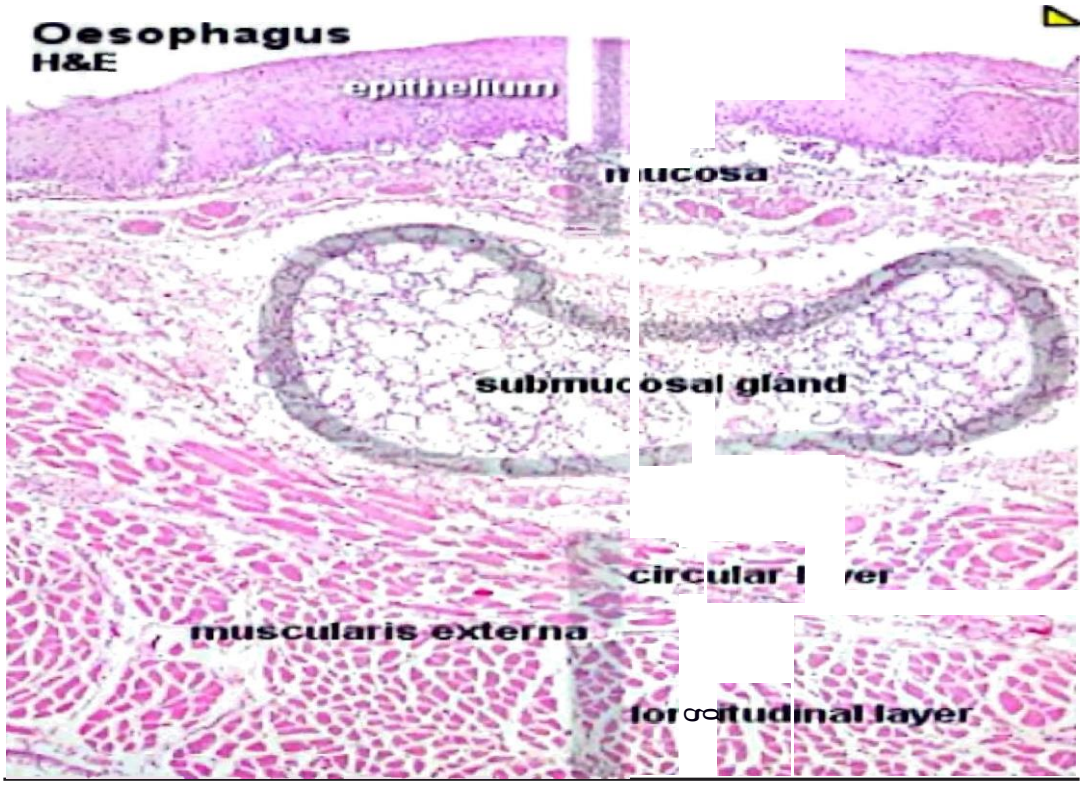

(View54)

S -Stomach :

Is an expanded part of ihe digestive tube that lie under the diaphrag•um , is divided into :

Cardiac is the superior region , *flindic* is the body form , and the pJ'fGff€. which is the inferior region of the stomach . (View 55-56) . The stomach wall exhibit four geneml layers :

- $Iucosa

The gastric mucosa consists of a surface *vpifheliuui but* invaginaies to varying extents in io the lamina propria forming gastric pits . Emptying in lo gastric pits are branched, tubular glands (cardiac, gastric . and pyloric) charucieristic of each region of the stomach .

The *lamina propria* of the stomach is composed of loose connective tissue interspersed with smooth muscle and lymphoid cells. Separating the mucosa from ihe underlying submucosa is a layer of smooth muscle ,the *WIfS*f4f*fOTf'SHtliCosO ,* th*!S* layer is composed of an outer group of longitudinal fibers and circular fibers closer to the lumen .

- Submucosa

Consists of connective tissue with numerous lymph vessels. capillaries, and another contents.

- Muscularls externa

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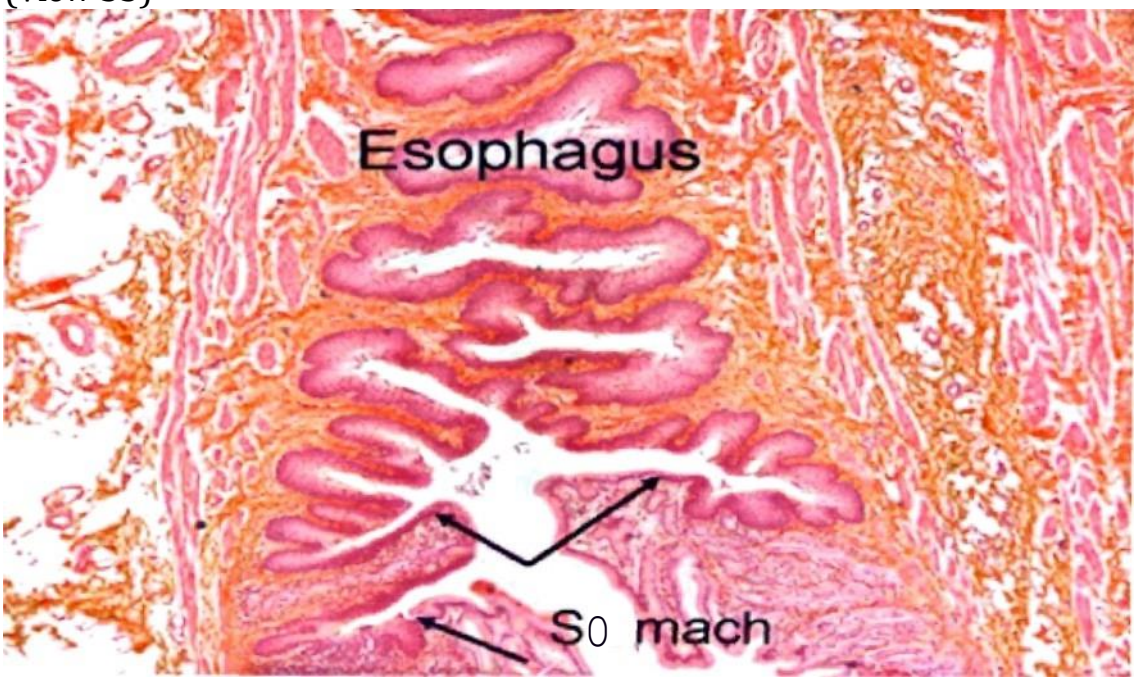
Consists of three)ayczs oysmooth muscle in diPerent arrangements(directions) ,the internal ia oblique ,ihe middle is circular. and the external is longitudinal layer.

Serosa

Is thin and covered by *me.cotheliuot.*

(Vlew 55)



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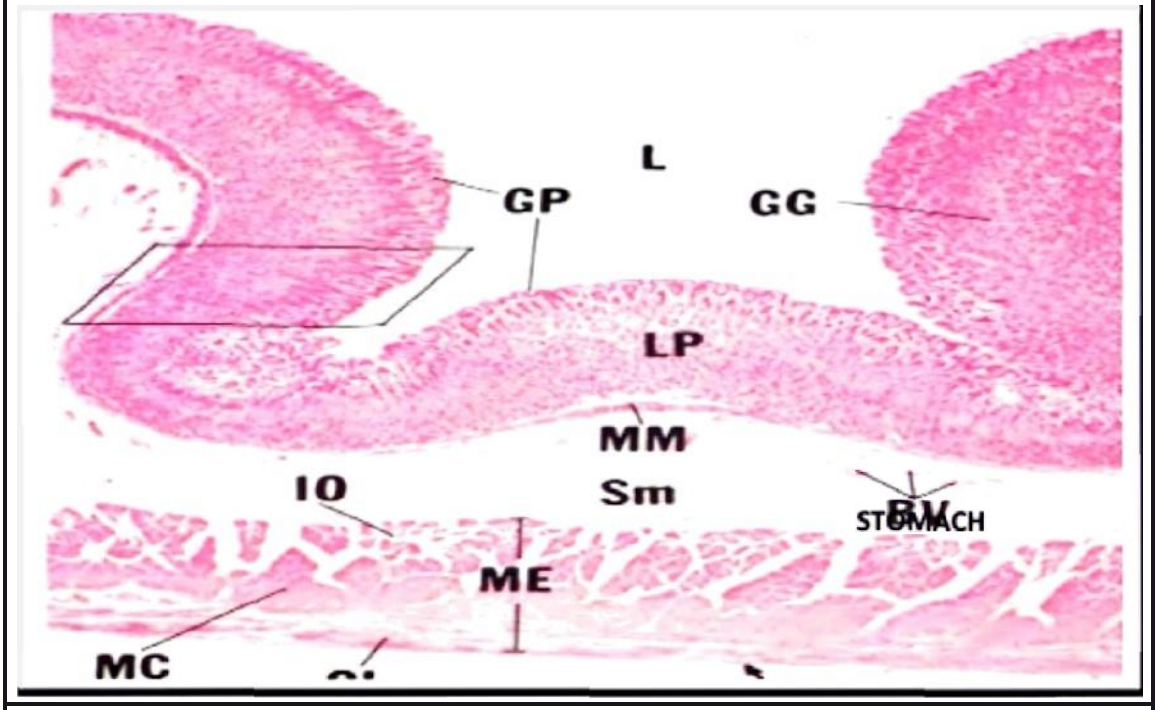

GP: gastric pit, GG: gastric gland, LP: lamina propria ,MM: muscularis mucosa, SM: submucosa. ME: muscularls external 5Gt

6-Small Intestine

Is relatively long permitting prolonged contact between food and digestive enxymes .It consists of 3 segments : d«odrnum,/rJ«nrm, and item.

- Mucosa :- The small iniesiine presents folds like finger, known as villi . thai change their morphology and decrease in height from the duodenum to the ileum . *WHI ore* efei•iifions *ofepithelially cot'vred lamina propria .*
  I-*Epithelium,* the simple columnar epithelium consists of goblet cells
  2- Lamina *propria,* composed of loose connective tissue ,houses glands, known as ihe cryptsofLleberhuhn ,thai extend to the muscularis mucosae
  3- riu.irrfnris *mucosae ,* consists of an inner circular and an outer longitudinal layer of snu›oth muscle .
- Submucosa:- display spiral fold , plicae circulars .
- Musculsrls externa , is composed of the usual inner circular and outer longitudinal layers *of* smooih muscle, witlt *Auerbach's plexus.*
- Serosa:- composed of connective tissue covered with mesothelium

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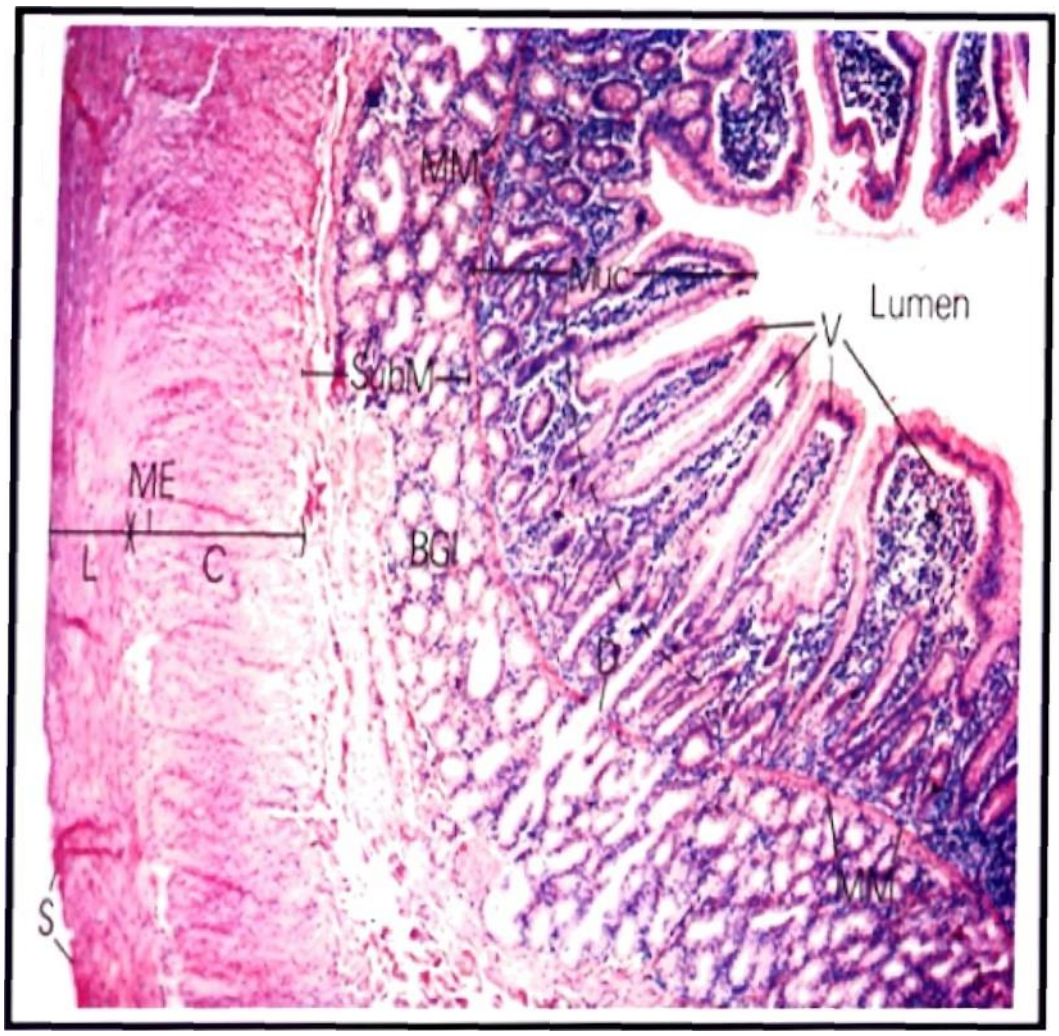
*1- Duodenu*m*:*

Has the same layers above .bui ii has a char-acierislic features .-

-*$t‹bntticv. a* ,with the mufous duodenal (Bruner's) glands.

-Covered with *semen* and adventiii•.Ivi»e sql



V: villi ,MUC: mucosa, MM: muscularis mucosa, 0: duet of Bruners gIand,BGI: 8runer gland, SubM: submucosa, ME: muscularis externa. S: serosa(View S7)

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Has a lamina pruyria , u'ith abundant ufl}TnyhatiC nodulcs, àFC knov'ti »
(Peyer 's patches) .

V: villi. SM: submucosa, ME: muscularis externa, LN: lymphatic nodule
(View58)

VII **L- rgeintestine**

is composed of ihe, c»fons f osrra#/ng , **rnsrrrse** , and dzsre»di»g2 . ***rec*fom ,*uppendix*** **rrromand mut rrraf** .

Colon

- ÏYlucoxa , presents no specializcd folds . li is thicker ihan ihat of ihe small intestine . (Víew 59}
  Epithc•liunt , simple columnar ep. . has goblet cells and columnar *cclls.*
  Laminapri›yrio , th*c* crypts of Liebcrkuhn are longer than lhat of the **xmall** intestine .
  *!*tf*iis‹ iilarisvxierna .* is' composed of the inner circular and outer longiludinal laycrs of sriuxilh msclc .
  » Submucosa . rescnibles that of ileum.

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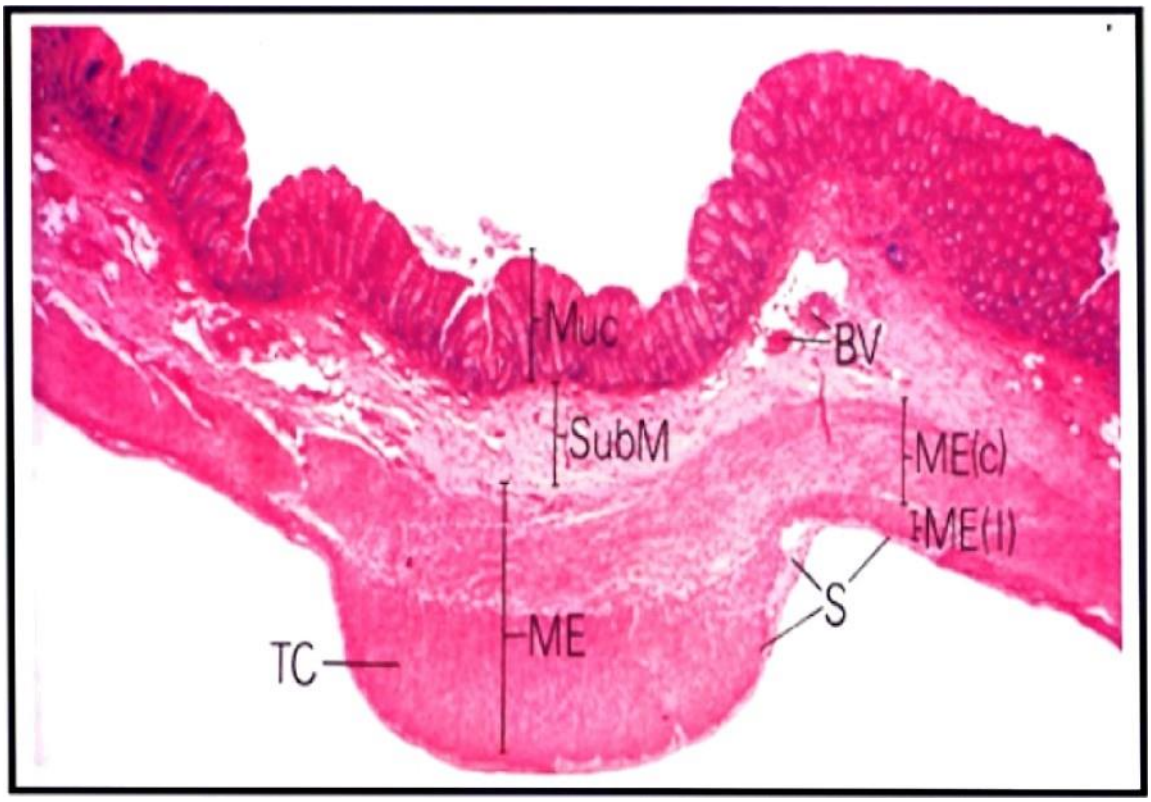
- Muscularln externa , is composed of ihe inner circular and outer longitudinal layers of smooth muscle . outer longitudinal smooth muscle is modified into *teniaecaii , tlirev flat rihhons oflongitudiaally arranged smooth muscle ,* auerbach's plexus occupies its position between the two layers .
- Scrosa , is posse› both serosa and adventitia. strosa presents small ,/ai- *fillvd ʀnuchex ,* the *appendice. epiyloicae .*



MUC: mucosa, MM: muscularls mucosa, SubM: submucosa, ME: muscularïs externa
s:wrosa lew59)

Appendix(vemñ form}

The lumen of the appendix is usually stellate shaped , the simple columnar epithelium coven a lamina propria rich in lymphaiic nodules and some of crypts of Lieberkuhn .The muscularis mucosae , submucosa. and muscularis exlerna conform to the general plan of the digestive traci . It is covered by a serosa .(View 59)

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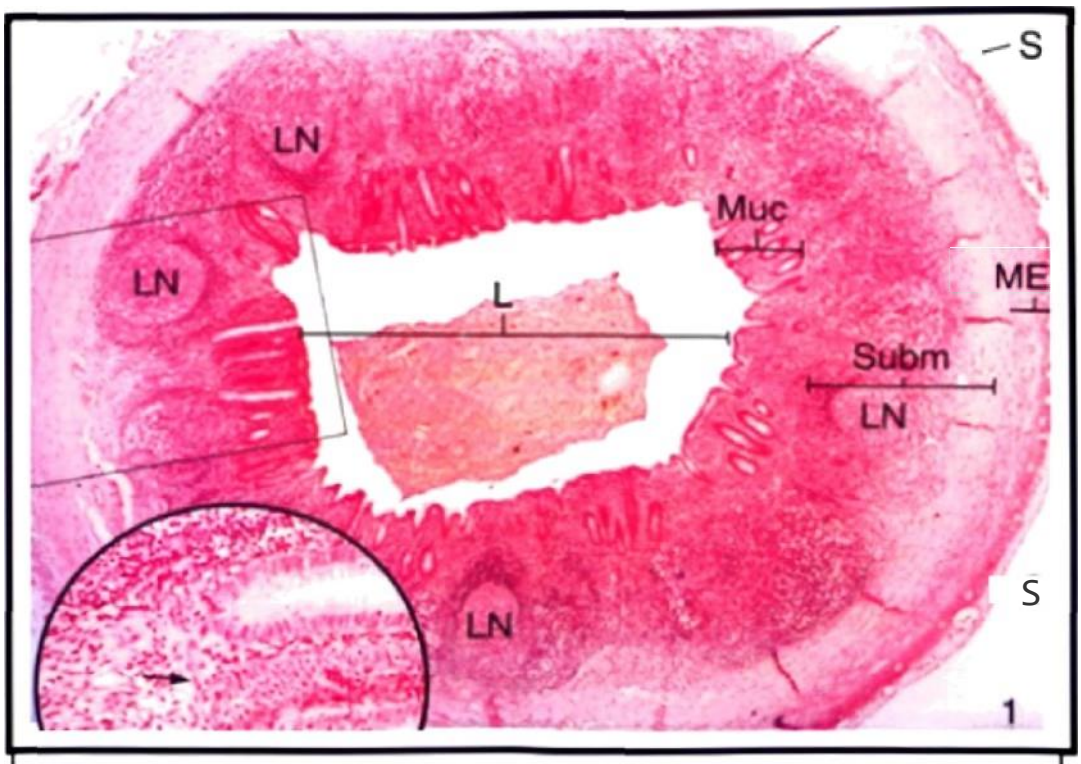

SM: submucosa, ME: muscularis externa, LN: lymphatic nodule, L:lumen ,S: serosa

MwéO)

Anal canal

Presents longitudinal folds . anal valves . the epithelium changes from the simple columnar of the rectum , to simple cuboidnl ai the anal valves , io siraiified squamous ai the anus .

The submucosa is rich in vascular supply , while the muscularis exlema forms the inicmal anal sphincier muxcle . an advenlilia connects the anus to the surrounding siruciures .

Oigeshve glands

The major glands are located outside ihe wall of the alimentary canal bui are connected to the lumen of the digestive tract via ducts . These glands include the *mojor salivaz*)•*(lends, liivr.* poarreos and *gollhladder.*

I- ñfoyor *salivary glands*

The three major salivary glands , parotide. submnndibular , and sublingual. deliver their secretion *saliva,* into ihe Oral cavity

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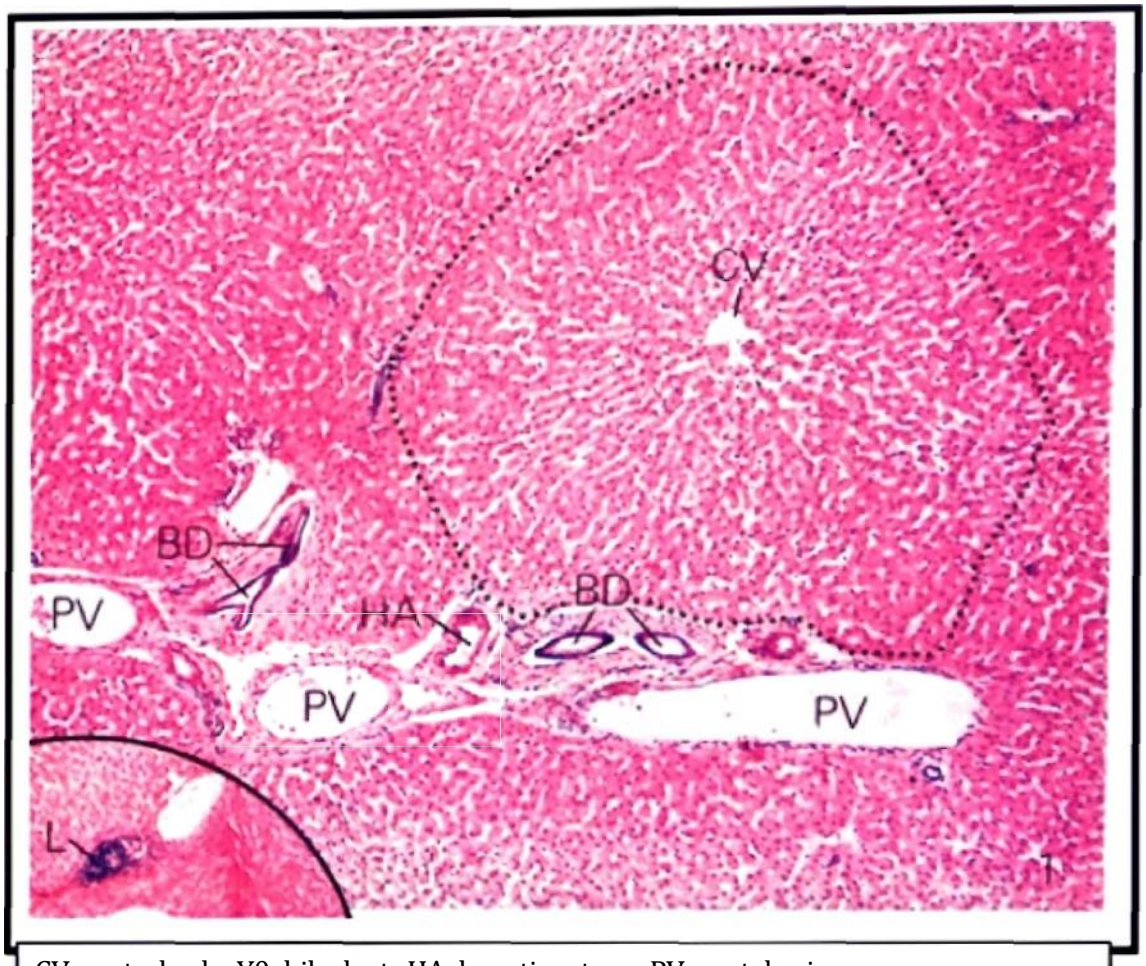
2- Liver

Is the largest mas» of glandular tissue in the body ad alSO is the largest internal organ consists of l,obules the parenchymal cells of the liver , known as *hepalo es* which organized as plates separated by **rioosrfd+** A liver lobule **schematically diagramed as** it six sided polyhedral pris'M With *R* *!* !** containing inside interlobular branches of:- (hepatic artery , portal vein . and bile duct) at each of the comers , and in the cenier of each lobule a rrarrnf refs .The hepatic sinusoids are lined with two types of cells.

I-EndothelIa(cells , ihey are small in size and only the nucleus is visible.

2- Kup ***ercelis*** *,* that are derived from monocytes can seen just in section that siains wiih India ink. (View b1)



CV: central veln, ¥0: bile duct , HA: hepatic artery , PV: portal vein

(View 61)

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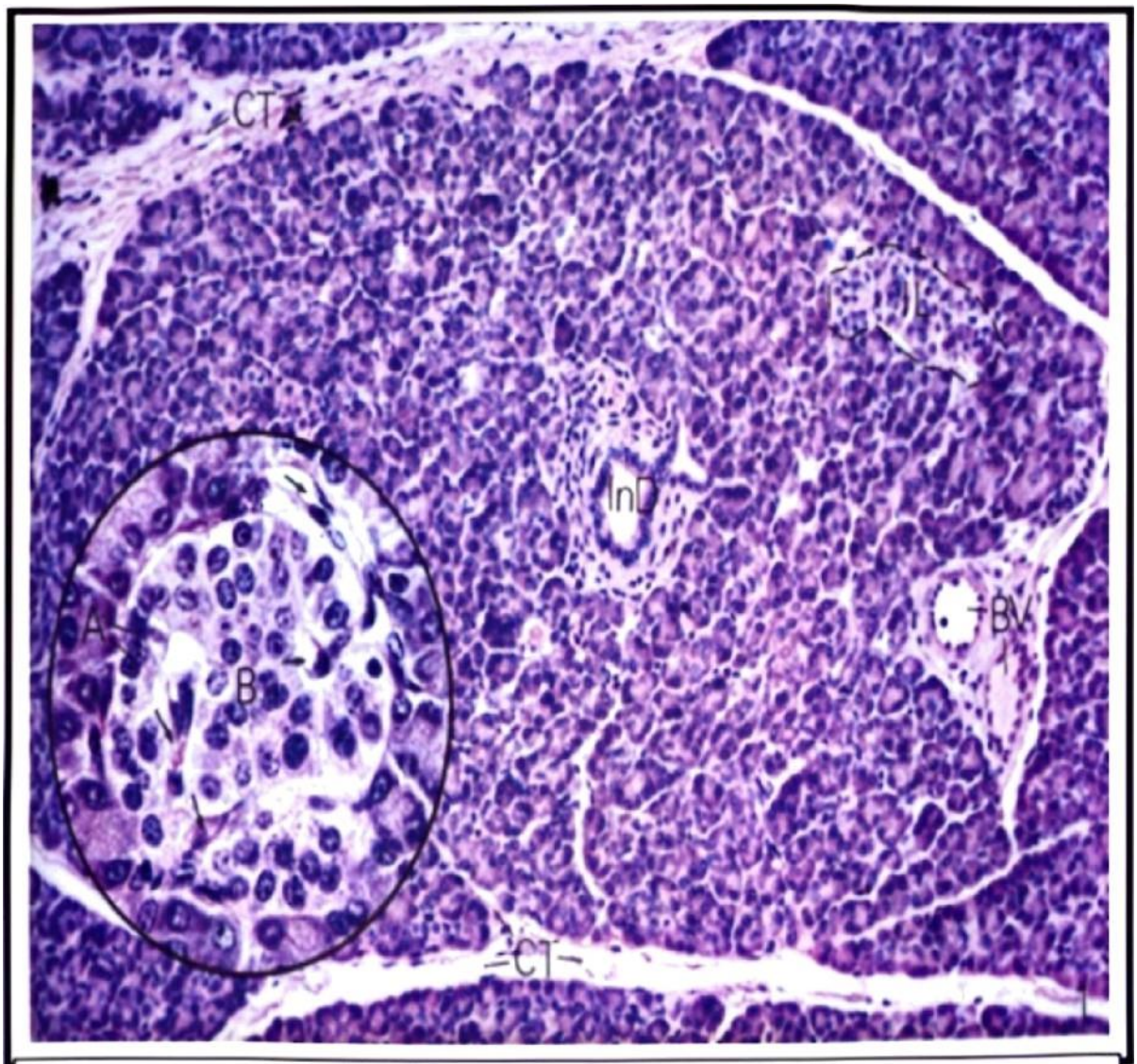
3- Pancreas

1s a tnixed gland , in that ii has cxocrinc and endocrine functions .The endocrine pari is composed of scattered spherical aggregates of richly vascularized cords' of endocrine cells. known as *ixtet* ***of Lungerhans,*** five cell types are p£eSent in the5e Structures *:o(A)ceIIS* , producing glycogan *; (B)* ***cells*** , manufacturing insulin : G **crffs** ; producing gastrin ; g(D}cells , manufacturing somatostatin: and *PP cell.x* secreting pancreatic polypeptide.

The exocrine pancreatic portion is *n ‹-nnipoiuidacinargland , composed ct* several pyramidal serous cells surrounding a lumen . they have a spherical nucleus , aixi the apex of the cell stains wiih acidic dyes while the base sinins with basic dyes.(View 62)



CY: connective tissue ,IL: islets of langcrhans, InD:intraIobular duct, B: region of rruzst Bcell,
» 'egio• or >ost z ccii(VleW 62)

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