

AN
INAUGURAL DISSERTATION
ON

The Anatomy of the Stomach and Liver

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Anatomy of the Stomach and Liver

The first organ which I propose to bring under consideration is the expansion of the Alimentary canal which Anatomists have given the name of the Stomach, This organ is situated partly in the left Hypochondriac Region, and partly in the Epigastric, Its direction is oblique from above downwards, and from left to right, also from before backwards, Owing to its form it is divided into greater and lesser extremities, the greater is the Splenic, the lesser is the pyloric end, it also has two curvatures one above and one below, The lesser curvature is above the greater below. It has two surfaces one posterior and one anterior,

The Stomach has two openings, the Esophagus communicates with the Stomach and this opening is called the Cardiac orifice the other opening communicates

with the duodenum and is the
Pyloric orifice. The Pylorus is the small
and contracted extremity of the
stomach, near its extremity is a
small dilatation called the antrum
of the pylorus. The Stomach is made up
of four coats. or rather three coats proper.
First the peritoneal, coat, next the
Muscular, next nervous or Cellular, and
lastly the Mucus or villous coat as it is
sometimes called. The first namely the
peritoneal completely envelope this
organ except at the curvatures where
the Omenta are attached. The Muscular
coat consists of fibres running in different
directions. one set run in a longitudinal
direction, another set run obliquely
the third are circular. The longitudinal
fibres are more distinct upon the lesser
curvature of the organ. The circular

fibres are more distinct at the pyloric
Orifice, ~~The~~ Cellular or Nervous coat
connects the Muscular and Mucous
coats and serves for the transmission
of Nerves and blood vessels, The
Mucous or Villous coat is a continuation
of the same coat which lines the
Mouth and Esophagus, It like other mucous
Membranes is of a pinkish color, It is thrown
into into a number of folds or Rugae,

This organ is very vascular, It is
supplied with with blood vessels
by the gastric artery, the right and
left gastric Epiploics and the vasa
brevia, The Nerves supplying this organ
are derived from the pneumogastric
and Sympathetic plexus's.

I will next consider the general
Anatomy of the Liver, This is the
largest organ in the human body,

weighing from four to five pounds.
It is situated in the right hypochondriac
region and extends across the epigastric
into the left hypochondriac region. It
measures transversely from ten to twelve
inches, antero posteriorly, from six to seven
its greatest thickness is from four to
five inches. Superiorly it is convex,
inferiorly, it is concave, and is of a
reddish brown color, It is situated
obliquely in the abdomen, It has two
borders one anterior and one posterior,
The anterior or free border is marked by
a deep notch, but the posterior is broad
and somewhat rounded,

The Liver has five ligaments, five
fissures, five lobes, and five sets
of blood vessels, It is held in place
by its ligaments, four of these being
formed by the duplicatures of the

peritoneum. The fifth one being formed by the obliteration of the Umbilical vein, The longitudinal or broad suspensory ligament is a fold of the peritoneum passing in an antero-posterior direction extending from the notch on the anterior or free border of the liver to the posterior border, Between its two layers is the round ligament the remains of the Umbilical vein.

The lateral ligaments are formed by two layers of peritoneum which pass from the inferior surface of the diaphragm to the posterior border of this organ, The two last mentioned ligaments correspond with the right and left lobes, The coronary ligament is formed by the separation of the layers of the lateral ligaments near their converging point the posterior layer is continuous

with both lateral ligaments, but the anterior layer leaves the posterior at each side and is continuous with the posterior layer of the longitudinal ligament, by this means a large surface is left uncovered by serous membrane on the posterior border of the liver, This space is principally formed by the right lateral ligament and near its left extremity is pierced by the ascending vena cava before this vessel passes through the diaphragm, The round ligament may be traced from the umbilicus along the longitudinal fissure on the inferior surface of this organ to the ascending vena cava to which it is connected, The inferior surface of the liver is marked by fissures which divide it into five lobes, The longitudinal fissure begins at the notch upon the anterior border of this organ and runs back to the

posterior border, the transverse fissure meets it transversely, before it reaches the posterior border of the organ this fissure lodges the round ligament and is crossed by a band or bridge of substance known as the pons hepatis.

The fissure of the ductus venosus is the shorter portion of the longitudinal fissure, extending from the point at which the transverse fissure joins the longitudinal, to the posterior border of the liver, it contains a small cord, which is the remains of the ductus venosus.

This fissure is only a part of the longitudinal. The transverse fissure is a short and deep fissure about two or three inches in length, the hepatic ducts, hepatic artery, and portal vein enter the liver through this fissure, For this reason the older

Anatomists considered it the gate of the liver, and there is a large vessel entering the organ at this point called the portal vein, at the entrance of these vessels into the transverse fissure, the branches of the hepatic duct are most anterior, next those of the artery, and most posteriorly the portal vein,

The fissure for the gall bladder is a shallow fissure extending forwards parallel with the longitudinal fissure, from the right extremity of the transverse fissure to the free border of the liver, where it sometimes forms a notch,

The fissure for the vena cava is a deep fissure, which commences a little behind the right extremity of the transverse fissure and extends to the posterior border of the liver and lodges the inferior vena cava,

The right lobe of the liver is some four or five times as large than the left, it is separated from it on the concave surface by the longitudinal fissure, on the convex by the longitudinal ligament, It is marked on its under surface by the transverse fissure by the fissure for the gall bladder and vena cava, and has three depressions, one, in front, for the curve of the ascending colon and two behind for the right supra renal capsule and kidney, The left lobe is small and somewhat flattened, it is convex upon its upper surface, and concave below where it lies in contact with the anterior surface of the stomach, It is sometimes in contact by its extremity with the upper end of the spleen, and is in relation by its posterior border with

with the cardiac orifice of the Stomach
and the pneumogastric nerve,

The lobus quadratus is a quadrilateral lobe
situated on the under surface of the right
lobe, it is bounded, in front by the anterior
border of the liver, behind by the transverse
fissure, to the right by the gall bladder;
and to the left, by the longitudinal
fissure. The lobus Spiegelii is a small
triangular lobe also situated on the
under surface of the right lobe, it is
bounded in front by the transverse
fissure, and on the sides, by the
fissures for the ductus venosus and
vena cava. The lobus caudatus is a
small tail like appendage of the lobus
spigelii, from which it runs outwards
like a crest into the right lobe, it
serves to separate the right extremity of
the transverse fissure from the common

-ment of the fissure for the vena
cava, The vessels entering into the
structure liver are also five in number.
They are the hepatic artery, portal vein,
hepatic veins, hepatic ducts, and
lymphatics. The hepatic artery, portal vein,
and hepatic duct enter the liver at the
transverse fissure, and ramify through
the portal canals to every part of the organ;
the direction of these vessels is from below
upwards, and from the centre towards the
circumference. The hepatic veins comm-
ence at the circumference, and proceed
from before backwards, to open
into the vena cava, on the posterior
border of the liver, hence the branches
of the two vessels cross each other in
their course. The portal vein, hepatic
artery, and hepatic duct are enveloped
in a loose areolar tissue called the

Capsule of Osifson, which permits them to contract when emptied of their contents

The hepatic veins on the contrary, are closely attached by their parietes to the surface of the canals in which they run and are unable to contract. By these characters the Anatomist is enabled, to distinguish the most minute branch of the portal from an hepatic vein. The former will be found collapsed, and always accompanied by an artery and duct. The latter on the contrary will be widely open and ~~and~~ solitary.

The lymphatic vessels of the liver are divisible into the deep and superficial.

The former take their course through the portal canals, and through the right border of the lesser omentum, to the lymphatic glands situated in the course of the hepatic artery and along

the lesser curve of the stomach. The superficial lymphatics are situated in the areolar structure of the proper capsule over the whole surface of the liver. This organ is supplied with nerves from the right phrenic and pneumo-gastric nerves, also from the hepatic plexus,