INTERNATIONAL JOURNAL ON ORANGE TECHNOLOGY

https://journals.researchparks.org/index.php/IJOT e-ISSN: 2615-8140 | p-ISSN: 2615-7071

Volume: 03 Issue: 9 |Sep 2021

Features of Anatomy of the Greater Omentum

Nurov Jamshid Raxmatovich, Ahmadova Maftuna Amin qizi

Assistant, Bukhara state medical institute, Republic of Uzbekistan, Bukhara

----------***----------

Abstract: The article has studied in detail the macro and microscopic anatomy of the greater omentum of a person. Variants, morphological, histotopographic features and ligament apparatus of the greater omentum are indicated. The obtained data are useful for surgical, including laparoscopic, interventions on the abdominal or¬gans. The conducted studies complement the changes in histotopographic relationships of the glands, lymphatic bed, and lymphoid structures described in the literature. The data in perspective can be used for the correction of ongoing conservative and operational activities.

Keywords: greater omentum, ligaments

Introduction

The anatomy of the large omentum, age, morphometric indicators of its changes need to be studied in depth, taking into account the requests of practical medicine. In the literature, the large omentum is figuratively called the "policeman of the abdominal cavity" for its antimicrobial functional activity (hemostasis, antimicrobial plastic, reconstructive, etc.).

The purpose of the study is to study the structure of the omentum and its variants in a mature person.

Materials and methods of research. We used 31 corpses of a mature person using anatomical, histological, cytological and morphometric research methods without abdominal pathology.

Results and their discussion. The large omentum begins from the large curvature of the stomach and in the form of 4 plates filled with fatty tissue hangs from the omentum tape of the transverse colon. The lower border of the large omentum can reach up to the level below the navel, sometimes up to the entrance to the pelvis.

The boundaries of the large oil seal are: 1) on the top and right – the liver; 2) on the top and left - the spleen; 3) in front-in contact with the parietal peritoneum of the anterior abdominal wall; 4) behind - the organs of the abdominal cavity (small intestine, ascending and descending parts of the colon, etc.). The large omentum consists morphologically of 2 parts: 1) gastrointestinal; 2) freely hanging part - "apron" below the transverse colon. We have found, as in the literature, variants of the beginning of the large omentum: 1) from the duodenum 12; 2) from the ascending colon closer to its right bend; 3) from the pylorus; 4) from the spleen and the posterior abdominal wall, *lig.gastrolienale;* 5) from the diaphragm, *lig. phrenicocolicum;* 6) from the gallbladder; 7) from the head of the pancreas. The oil seal is found in 3 variants, depending on the length and width: 1) long and wide; 2) short and narrow; 3) intermediate, medium. The morphometry of the omentum has variations (Table 1).

Table 1

Morphometry (in cm) of the omentum in adults

Indicators	T. S. Huseynov, 2010	D. Lieberman, 1989
Length	15-17	14-36
Width	18-29	26-46
Thickness	2,78-2,90	-

The shape of the large oil seal: it occurs in the following variants: 1) in the form of lace (oil of the fat layer); 2) an uneven surface with protruding fat segments (bumpy, pads).

During histotopographic examination, there are collagen, elastic and reticular fibers in the thickness of the large omentum. The cellular composition is represented by lymphocytes, macrophages, fibroblasts, mast cells, mature and immature plasmocytes, fat cells, eosinophils, milky spots.

INTERNATIONAL JOURNAL ON ORANGE TECHNOLOGY

https://journals.researchparks.org/index.php/IJOT e-ISSN: 2615-8140 | p-ISSN: 2615-7071

Volume: 03 Issue: 9 |Sep 2021

Milky spots have the following structural elements: mesotheliocytes, own plate, subserose base, trabeculae, fat lobules, cellular elements, elastic and reticular fibers, fenestras, etc.

The work [3] is devoted to the questions of the structure of the milky spots and the blood supply to the large omentum, which indicates that the large omentum is a cellular framework of fibrous connective tissue, carrying vessels and fat "pads" containing deposits of adipose tissue along the blood vessels; cellular elements and mobile cells are fixed on the frame. A thin transparent membranous part is determined between the fat accumulations. In this part of the omentum there are small opaque ovoid-shaped formations called milky spots. Collagen, elastic and reticular fibers are randomly arranged in it, forming wide cells intersected by fibrils.

The large omentum has thinned areas where the mesothelium is close to the lymphatic capillaries and lacunae, the so-called "suction hatches". In the area of the hatches there are mesotheliocytes, a border plate, a surface fibrous collagen layer. In the area of the milky spots, there are blind outgrowths of lymphatic capillaries and there are no continuous lymphatic capillary networks. The lymphatic vessels of the great omentum follow the course of the arteries and veins and connect with the lymphatic vessels of the stomach. In this regard, our research is consistent with the data [6] that regular undulation is determined on the surface of the serous membranes (peritoneum, pleura, pericardium), initiated by the fibrousness of the surface collagen-fibrous layer. The roof of the manhole chambers is in the form of local elevations and depressions of the mesothelium with a dissected basement membrane and a window-like surface collagen-fibrous layer. The trabecula of the trapdoor chambers are encircled by a lymphatic capillary.

According to the description of the International Anatomical Terminology IAT (Tashkent, 2007), the small omentum, omentumminus, consists of 5 ligaments: 1) hepatic-diaphragmatic, *lig. hepatophrenicum*; 2) hepatic-esophageal, *lig. hepatoesophageale*; 3) hepatic-gastric, *lig. hepatogastricum*; 4) hepatic duodenal, *lig. hepatoduodenale*; 5) hepatic-colon, *lig. Hepatocolicum* (impermanent).

The large omentum, *omentummajus*, consists of 10 ligaments according to International Anatomical Terminology (Tashkent, 2007): 1) gastro-diaphragmatic, *lig. gastrophrenicum*; 2) pre-splenic fold, *plicapresplenica*; 3) gastrointestinal, *lig. gastrocolicum*; 4) diaphragmatic-splenic ligament, *lig. pherenicosplenium*; 6) pancreatic-splenic, *lig. pancreaticosplenium*; 7) pancreatic-colon, *lig.pancreaticocolicum*; 8) splenic-colon, *lig. splenocolicum*; 9) diaphragmaticum, *lig. phrenicocolicum*; 10) gastrointestinal, *lig. gastrosplenicum*. The large omentum has 4 leaves of the visceral mesentery.

The opinion found in the literature that the large omentum consists of 2 leaves is considered erroneous, they do not take into account the embryogenesis of the omentum, stomach, dorsal and visceral mesentery during the development of abdominal organs. The description of the anatomy of the large omentum and the number of its ligaments is not enough in the educational literature, they should be corrected.

In some literary sources, the hepatic-colon ligament is listed to the small omentum, and in others to the large omentum.

The low edge of the gland has 1, 2, 3 tongue-like elongations and does not always have smooth edges.

In the literature [1, 5] it is indicated that the large oil seal consists of one, two and many blades within 3-6, along the lower edge of the large oil seal. After straightening out the fragments of the omentum, there are uneven separate tongue-like areas (blades, fragments) along the lower edge of it. According to our observations, one, two and three blades are often found. The large omentum has age-related, individual features in morphometric terms (Table 2).

Table 2

Morphometry (in sm) of the human large omentum

Indicators	Newborns (5)	Matureage (35-60 years, (1)
Length	2,5-8,5	15-17
Width	4-12,5	18-29
Thickness	28-115	278-250

INTERNATIONAL JOURNAL ON ORANGE TECHNOLOGY

https://journals.researchparks.org/index.php/IJOT e-ISSN: 2615-8140 | p-ISSN: 2615-7071

Volume: 03 Issue: 9 |Sep 2021

According to some authors [2], it seems that lymph nodes are very rare on the surface of the omentum. We did not find a single lymph node in the thickness of the large omentum on the periphery. Regional lymph nodes for the large omentumand the walls of the stomach are located along the right and left omentum-gastric arteries along a large curvature. The number of these nodes varies between 7-9. In the monograph [4] it is indicated that there are 6 lymph nodes in the thickness of the large omentum, we observed them only at the beginning of the large omentum and did not meet them on the periphery and in the thickness of the omentum.

In width, the large omentum begins from the gate of the spleen on the left and the right lobe of the liver, sometimes from the gallbladder on the right along the large curvature of the stomach. Along the course of the blood vessels of the great omentum (branches of the right and left gastro-omentum arteries), there are lymph nodes. The branches of the blood vessels extending from the left and right gastrointestinal arteries vary from 7 to 13 and depend on age.

Conclusion. There are new studies to study the morphology of the large omentum, taking into account histotopography, histophysiology, architectonics of connective-woven fibers, the spectrum of cytological composition, the state of the hemato - lymphomicrocirculatory bed under normal, pathological and experimental conditions.

References

1. Гусейнов Т.С. Возрастная анатомия толстой кишки человека. Махачкала: Изд. дом "Наука плюс", 2010. 114 с.
2. Либерман Д. Большой сальник (перевод с анг.). М.: Медицина, 1989. 336 с.
3. Ломакин В.И., Вострилов И.М., Пелих К.И., Карелина Н.Р. Строение и кровоснабжение большого сальника // Морфологии. 2012. № 3. С. 93-94.
4. Маргорин Е.М. Топографо-анатомические особенности новорожденного. Л., 1977. 280 с.
5. Nurov J.R., Khalikova F.S. Long-term results of surgical treatment patients with stomach cancer // Вестникнаукииобразования.– 2020. – №23-2(101). – С. 85-89.
6. Давыдов М.И., Германов А.Б., Стилиди И.С. Расширенные операциив хирургии рака желудка // Хирургия. -1995. -№5. —С. 41-46.
7. Кузнецов Н. А. Егоров Е. И., Слепцов А. А. и др. Современные аспекты хирургического лечения рака желудка. // Российск. Мед. Журн. -2001.-№1.-С. 17-19.
8. М.А. Ахмадова, А.Т. Чўлиев, Ж.Р. Нуров, Д.К. Худойбердиев Лучевая диагностика эхинококкоза печени-стр./Биология ва тиббиёт муаммолари.2019,№4.2(115)с.20-25
9. Nurov J.R., Mamedov U.S., Khalikova F.S. Influence of Changes in the Intestinal Microflora after Gastrectomy and Correction Methods // Annals of the Romanian Society for Cell Biology.– 2021. – Vol. 25(4). – P. 1922-1926.
10. Makhmudova G.F. Age-related clinical, anatomical and morphological features of malignant tumors of the cervix// Journal of science and technology//2021.-P.-475-480.
11. Mamedov U.S., Pulatova D.SH. The Results of Cancer Treatment of the Oral Caviti Tumors in //the Republic of Uzbekistan European journal of Pharmaceutical and Medical Research. -2019. -6(9). - P. 326-329.
12. Narziyeva D.F., Jonibekov J.J.;Morphological features of tumor in different treatment options for patients with locally advanced breast cancer //Middle European scientific bulletin.Volume7-2020-Dec.–P. 105-107.
13. R. R. Navruzov. Characteristics of morphometric parameters of the white rat's stomach in the early postnatal period// New day in medicine.2 (34/3) 2021 P-17-23
14. Z.R. Sokhibova, M.R. Turdiyev, (2021). Some Features Of Laboratory Indicators Of Micro And Macro-Elementary Condition Of The Organism Of Female Age Women Innormality And In Iron Deficiency. *The American Journal of Medical Sciences and Pharmaceutical Research, 3(02),* MO- 145.