

Introduction of Mesentery

Alexandre Wagner Silva de Souza*

Department of Rheumatology Division, Universidade Federal de São Paulo-Unifesp/EPM, São Paulo, Brazil

Editorial

Mesenteries are double layers of peritoneum in the abdominal cavity and are continuations of the visceral and parietal peritoneum with the serous membranes adhered back to back so that the outer mesothelium secretes serous fluid into the peritoneal cavity. This decreases the friction between the adjacent visceral surfaces and allows some movement of the organs that occur during digestion. The mesentery attaches the intestines to the abdominal wall, and also helps storing the fat and allows the blood and lymph vessels, as well as the nerves, to supply the intestines.

The mesentery of the small intestine is a large and broad fan-shaped mesentery that is attached to the jejunum and ileum of the small intestine, connecting them to the posterior abdominal wall. Superiorly, the mesentery of the small intestine is attached to the end of the duodenum/beginning of the jejunum just to the left of the 2nd lumbar vertebra. It runs obliquely down to terminate and attaches at the end of the ileum/beginning of the cecum (ileocecal junction) by the right sacro-iliac joint.

The mesentery is a double fold of peritoneal tissue that suspends the small intestine and large intestine from the posterior abdominal wall. It was previously thought to be a collection of discrete structures-each with separate insertions into the posterior wall. However, recent research has found the mesentery to be one contiguous structure, which has led to proposals for its reclassification as an organ. In this article, we shall look at the anatomy of the mesentery its anatomical structure, vasculature, innervation, lymphatics and clinical relevance. Research regarding the mesentery is relatively recent, and some older textbooks may still describe the different parts of the mesentery as separate structures-this is now thought to be incorrect.

The mesentery is an organ that attaches the intestines to the posterior abdominal wall in humans and is formed by the double fold of peritoneum. It helps in storing fat and allowing blood vessels, lymphatics, and nerves to supply the intestines, among other functions.

The mesocolon was thought to be a fragmented structure, with all named parts the ascending, transverse, descending, and sigmoid mesocolons, the mesoappendix, and the mesorectum separately terminating their insertion

into the posterior abdominal wall. However, in 2012, new microscopic and electron microscopic examinations at the University of Limerick showed the mesocolon to be a single structure derived from the duodenojejunal flexure and extending to the distal mesorectal layer. Thus, the mesentery is an internal organ.

The mesentery of the small intestine arises from the root of the mesentery (or mesenteric root) and is the part connected with the structures in front of the vertebral column. The root is narrow, about 15 cm long, 20 cm in width, and is directed obliquely from the duodenojejunal flexure at the left side of the second lumbar vertebra to the right sacroiliac joint. The root of the mesentery extends from the duodenojejunal flexure to the ileocaecal junction. This section of the small intestine is located centrally in the abdominal cavity and lies behind the transverse colon and the greater omentum.

The mesentery becomes attached to the colon at the gastrointestinal margin and continues as the several regions of the mesocolon. The parts of the mesocolon take their names from the part of the colon to which they attach. These are the transverse mesocolon attaching to the transverse colon, the sigmoid mesocolon attaching to the sigmoid colon, the mesoappendix attaching to the appendix, and the mesorectum attaching to the upper third of the rectum. The mesocolon regions were traditionally taught to be separate sections with separate insertions into the posterior abdominal wall. In 2012, the first detailed observational and histological studies of the mesocolon were undertaken and this revealed several new findings. The study included 109 patients undergoing open, elective, total abdominal colectomy. Anatomical observations were recorded during the surgery and on the post-operative specimens.

These studies showed that the mesocolon is continuous from the ileocaecal to the rectosigmoid level. It was also shown that a mesenteric confluence occurs at the ileocaecal and rectosigmoid junctions, as well as at the hepatic and splenic flexures and that each confluence involves peritoneal and omental attachments. The proximal rectum was shown to originate at the confluence of the mesorectum and mesosigmoid. A plane occupied by perinephric fascia was shown to separate the entire apposed small intestinal mesentery and the mesocolon from the retroperitoneum. Deep in the pelvis, this fascia coalesces to give rise to presacral fascia.

How to cite this article: Alexandre Wagner Silva de Souza. "Introduction of mesentery." *J Vasc* 6 (2020): e102.

*Address for Correspondence: Alexandre Wagner Silva de Souza, Rheumatology Division, Universidade Federal de São Paulo-Unifesp/EPM, São Paulo, Brazil; E-mail: alexandre_wagner@uol.com.br

Copyright: © 2020 De Souza W. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Received November 02, 2020; Accepted November 16, 2020; Published November 25, 2020