Updates on the Mesentery - their importance in colorectal surgery

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20th Annual Conference of the Egyptian Group of Colorectal Surgeons
What is the mesentery?

“The mesentery is a double fold of peritoneum that maintains the intestine in position”
Classic model

150 years
Old

Henry Gray
Gray’s Anatomy

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New model of the “mesentery”
The mesentery as an Organ
The mesentery incubates digestive organs
The mesentery links digestive organs
New definition – The Mesentery

The mesentery is the collection of tissues that maintains all abdominal digestive organs in position and in continuity with other systems.

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Gray’s Anatomy
41st Ed

Gray’s Surgical Anatomy, 2019

Langman’s Medical Embryology

Seminars in Developmental Biology

Gray’s Anatomy
42 Ed

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Scientific Implications

The mesentery: structure, function, and role in disease

Cellular, Molecular

Anatomy, embryology, physiology, Immunology, evolutionary biology

THE LANCET
Gastroenterology & Hepatology

t.co/4aeJtc3LSG
The Mesenteric Digestive System
Clinical Implications

Defining the mesentery as an organ and what this means for understanding its roles in digestive disorders

Diagnostic

Therapeutic

Surgery, Pathology, Gastroenterology

Radiology, Oncology, .......

t.co/1je15ec8nl
Mesoronic Principles of Gastrointestinal Surgery: Basic and Applied Science

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New model – New Language

STANDARDISATION

March 2016
Crohn’s Disease – conventional versus Mesenteric Resection
Mesenteric resection was associated with reduced surgical recurrence in ileocolic Crohn’s disease

Coffey et al, Journal of Crohn’s Colitis, 2018
The Mesentery, Systemic Inflammation, and Crohn’s Disease

Rivera et al.,
Dep. Gastroenterology
University of Miami
Inflammatory Bowel Diseases, 2018

Mesenteric Gastroenterology
Miami, 2018

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The role of adipose tissue in inflammatory bowel diseases

Carl Weidinger\textsuperscript{a,c}, Ahmed N. Hegazy\textsuperscript{a,b,c}, and Britta Siegmund\textsuperscript{a}

“The increasing body of data supporting the concept that the mesentery serves as an ... organ ... is strongly supported by data published over the last 18 months”
The mesentery: an ADME perspective on a ‘new’ organ

Aneesh A. Argikar and Upendra A. Argikar

Mesenteric pharmacology
Novartis, Cambridge, USA, 2018

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Mesenteric organ lymphatics and inflammatory bowel disease

Yuanyuan Ge, Yi Li*, Jianfeng Gong, Weiming Zhu

Mesenteric lymphangiology
Nanjing, China, 2018

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The Mesentery

The mesentery is the collection of tissues that maintains all abdominal digestive organs in position and in continuity with other systems.
Dara Walsh, Peter Dockery, Kevin Byrne

Miranda Kiernan$^{\phi,1,2,3}$, Ian Lavery$^4$, John P. Burke$^{5,6}$, Patrick A. Kiely$^{2,3,7}$, Bo Shen$^{4,8}$, Victor Fazio$^4$, Colin Peirce$^1$, Manus Moloney$^9$, Maeve Skelly$^9$, Paul Tibbitts$^{1,2}$, Hena Hidayat$^1$, Peter N. Faul$^{10}$, Vourneen Healy$^{10}$, D. Peter O`Leary$^1$, P. Ronan O`Connell$^{5,6}$, Sean Martin$^5$, Fergus Shanahan$^{12}$, Claudio Fiocchi$^{8,13}$,
MESENTERIC PRINCIPLES OF GASTROINTESTINAL SURGERY BASIC AND APPLIED SCIENCE

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The mesentery is a primary determinant of abdominal anatomy.

It determines the anatomy of the abdominal digestive system.

It determines peritoneal and peritoneal cavity anatomy.
How is the mesentery held in position?
Mesenteric digestive system

ANTERIOR VIEW

Liver
Stomach
Spleen
Left Colon
Right Colon
Mesenteric digestive system

- Cadaver
- SPLEEN
- Liver
- Right colon
- POSTERIOR VIEW