

Supplemental Table I. Up-regulated differentially expressed viral response gene sets in earlier-onset diverticulitis patients.

Gene Set	Combined Score	<i>P</i> -value	<i>q</i> -value
GO:0039696 RNA-Templated Viral Transcription	220.9	1.25E-32	3.88E-30
GO:0019084 Middle Viral Transcription	220.7	1.25E-32	3.88E-30
GO:0039695 DNA-Templated Viral Transcription	220.5	1.25E-32	3.88E-30
GO:0019085 Early Viral Transcription	219.8	3.98E-32	1.18E-29
GO:0075527 Viral RNA Editing	210.9	5.02E-30	1.30E-27
GO:0019083 Viral Transcription	210.7	5.02E-30	1.30E-27
GO:0019062 Virion Attachment to Host Cell	26.5	3.60E-05	2.40E-03
GO:0046718 Viral Entry into Host Cell	24.5	6.40E-05	3.90E-03
GO:0039702 Viral Budding via Host ESCRT Complex	17.2	5.30E-03	2.20E-02
GO:0019068 Virion Assembly	10.3	1.10E-02	2.40E-01

Supplemental Table II. Down-regulated differentially expressed nervous system gene sets in earlier-onset diverticulitis patients.

Gene Set	Combined Score	<i>P</i>-value	<i>q</i>-value
GO:0007416 Synapse Assembly	107.1	3.15E-12	2.16E-08
GO:0035545 Determination of Left/Right Asymmetry in Nervous System	92.9	5.13E-11	1.76E-07
GO:0022008 Neurogenesis	88.7	2.19E-10	2.15E-07
GO:0007417 Central Nervous System Development	83.3	3.51E-09	2.41E-06
GO:0007399 Nervous System Development	83.3	1.82E-10	2.15E-07
GO:0061548 Ganglion Development	83.2	1.82E-10	2.15E-07
GO:0007421 Stomatogastric Nervous System Development	83.2	1.82E-10	2.15E-07
GO:0048483 Autonomic Nervous System Development	79.6	2.09E-10	2.15E-07
GO:0007422 Peripheral Nervous System	78.1	8.01E-10	6.88E-07
GO:0021915 Neural Tube Development	85.9	1.34E-09	1.02E-06

Supplemental Table III. Smooth muscle pathways associated with DVT-MO, DVT-LO, and DVT-EO.

DVT-MO down-regulated

	p value	adjusted p value	z score	combined score
regulation of smooth muscle contraction (GO:0006940)	0.00001157	0.00672	-2.85	32.36
muscle contraction (GO:0006936)	0.000001159	0.001682	-2.75	37.62
smooth muscle contraction (GO:0006939)	0.000002708	0.00262	-2.93	37.6

DVT-LO up-regulated

	p value	adjusted p value	z score	combined score
regulation of smooth muscle contraction (GO:0006940)	0.000008468	0.005904	-2.85	33.33
muscle contraction (GO:0006936)	0.000008009	0.005904	-2.75	32.28
smooth muscle contraction (GO:0006939)	0.0000167	0.009315	-2.93	32.22

DVT-EO Up-regulated

	p value	adjusted p value	z score	combined score
regulation of smooth muscle contraction (GO:0006940)	0.0002198	0.03422	-2.77	23.33
muscle contraction (GO:0006936)	0.0004633	0.06011	-2.72	20.85
smooth muscle contraction (GO:0006939)	0.0007706	0.08996	-2.89	20.74

Supplemental Table IV. Patient demographics by cluster.

	DVT-MO	DVT-LO	DVT-EO	P-value
Total n	12	6	8	
Sex				
Male	4 (33.3%)	3 (50.0%)	5 (62.5%)	0.471
Female	8 (66.7%)	3 (50.0%)	3 (37.5%)	
Smoking Status at the Time of Surgery				
Positive	6 (50.0%)	4 (66.7%)	4 (50.0%)	0.778
Negative	6 (50.0%)	2 (33.3%)	4 (50.0%)	
Age of First Diverticulitis Episode, yrs				
(mean±SD)	62.3±18.9	66.0±11.7	36.3±5.2	0.0008
Age of Sigmoid Resection, yrs				
(mean±SD)	66.2±16.3	66.6±12.6	41.3±7.3	0.0008
Body Mass Index, kg/m²				
(mean±SD)	33.4±6.9	30.1±4.3	27.4±6.0	0.117
Familial Diverticular Disease				
Yes	4 (33.3%)	1 (16.7%)	3 (37.5%)	0.749
No	8 (66.7%)	5 (83.3%)	5 (62.5%)	
History of Perforation/Abscess				
Yes	7 (58.3%)	4 (66.7%)	4 (33.3%)	0.445
No	5 (41.7%)	2 (33.3%)	8 (66.7%)	
History of Fistula				
Yes	4 (33.3%)	4 (66.7%)	1 (12.5%)	0.159
No	8 (66.7%)	2 (33.3%)	7 (87.5%)	

Positive smoking status includes current and former smokers at the time of surgery. Continuous variables were analyzed by two-tailed one-way ANOVA. Categorical variables were analyzed by two-tailed Fisher's Exact test.