

Table S1 The effects of DEX on SOD concentration

Groups	Intestinal tissue	Plasma
NS + sham	64.73±0.44	27.08±2.06
NS + I/R	42.37±0.51 ^{***}	15.05±0.88 ^{***}
DEX + sham	64.51±0.76 [#]	24.31±1.41
DEX + I/R	54.40±0.28	23.44±1.77

^{**}, P<0.01 compared to the NS + sham group; [#], P<0.01 compared to the DEX + I/R group. DEX, dexmedetomidine; SOD, superoxide dismutase; NS, normal saline; I/R, ischemia-reperfusion.

Table S2 The effects of DEX and ABX on inflammation cytokines

Groups	Plasma			Intestinal tissue		
	IL-6	IL1- β	TNF- α	IL-6	IL1- β	TNF- α
Con	1.04±0.37	1.46±0.16	1.67±0.24	1.00±0.21	1.00±0.19	1.25±0.24
I/R	3.75±0.20 [*]	7.51±1.57 ^{**}	18.72±2.77 ^{**}	7.83±0.52 ^{**}	5.44±0.58 ^{**}	18.72±2.77 ^{**}
DEX + I/R	1.59±0.23 [#]	2.50±0.56 [#]	2.08±0.30 [#]	2.77±0.14 ^{***}	2.91±0.51 [#]	2.13±0.16 ^{***}
ABX + I/R	1.39±0.17 [#]	1.70±0.23 ^{***}	1.67±0.15 [#]	2.24±0.34 ^{***}	2.77±0.55 [#]	1.71±0.18 ^{***}
ABX + DEX + I/R	1.48±0.25 [#]	1.63±0.23 ^{***}	1.84±0.30 [#]	2.17±0.21 ^{***}	1.87±0.46 [#]	1.62±0.16 ^{***}

^{*}, P<0.05 compared to the control group; ^{**}, P<0.01 compared to the control group; [#], P<0.05 compared to the I/R group; ^{##}, P<0.01 compared to the I/R group. DEX, dexmedetomidine; ABX, antibiotics; IL, interleukin; TNF, tumor necrosis factor; Con, control; I/R, ischemia-reperfusion.

Table S3 The effects of FMT on the on intestinal I/R injury

Groups	ZO-1	Occludin	CRP	IL-6
NS_FMT + sham	1.00±0.06	1.00±0.07	3.55±0.39	29.90±2.50
NS_FMT + I/R	0.35±0.03 ^{***}	0.51±0.05 [#]	12.47±0.89 ^{***}	171.80±5.01 ^{***}
DEX_FMT + sham	1.08±0.10	1.09±0.03	2.58±0.24 [#]	28.98±1.69 [#]
DEX_FMT + I/R	0.93±0.05	0.78±0.01	6.50±0.56	112.80±3.75

^{*}, P<0.05 compared to the NS_FMT + sham group; ^{**}, P<0.01 compared to the NS_FMT + sham group; [#], P<0.05 compared to the DEX_FMT + I/R group; ^{##}, P<0.01 compared to the DEX_FMT + I/R group. FMT, fecal microbiota transplantation; I/R, ischemia-reperfusion; CRP, C-reactive protein; IL, interleukin; NS, normal saline; DEX, dexmedetomidine.