

Table S1: The methodological quality of included random control trials

Study	A	B	C	D	E	F
Sandborn, 2009	?	+	+	+	+	+
Colombel, 2010	?	+	+	+	+	+
Reinisch, 2011	+	+	+	+	+	+
Sandborn, 2011	+	+	+	+	+	+
Sandborn, 2012	+	+	+	+	+	+
Kobayashi, 2016	+	+	+	+	+	+

A: Generation of allocation sequence; B: Allocation concealment; C: Blinding of participants and personnel; D: Blinding of outcome assessment; E: Incomplete outcome data; F: No selective outcome reporting.

+ = low risk of bias

? = unclear risk of bias

- = high risk of bias.

Table S2: The methodological quality of cohort studies

Study	Selection	Comparability	Outcome	Total
Qumseya, 2009	***	*	**	6
Bultman, 2011	****	**	***	9
Moore, 2011	***	**	**	7
Click, 2012	***	*	***	8
Bhalme, 2012	***	*	***	7
Khan, 2012	**	**	*	5
Rosen, 2012	***	**	**	7
Horst, 2012	***	*	**	6
Harper, 2013	***	**	***	8
Billet, 2016	***	**	***	8
Brown, 2016	***	**	***	8
Scaldaferri, 2017	**	*	**	5
Ding, 2017	***	**	***	8
Guerbau, 2017	****	**	***	9
Madsen, 2018	***	**	***	8
Kurnool, 2018	***	**	***	8

obesity and failure of anti-TNF therapy (per BMI)

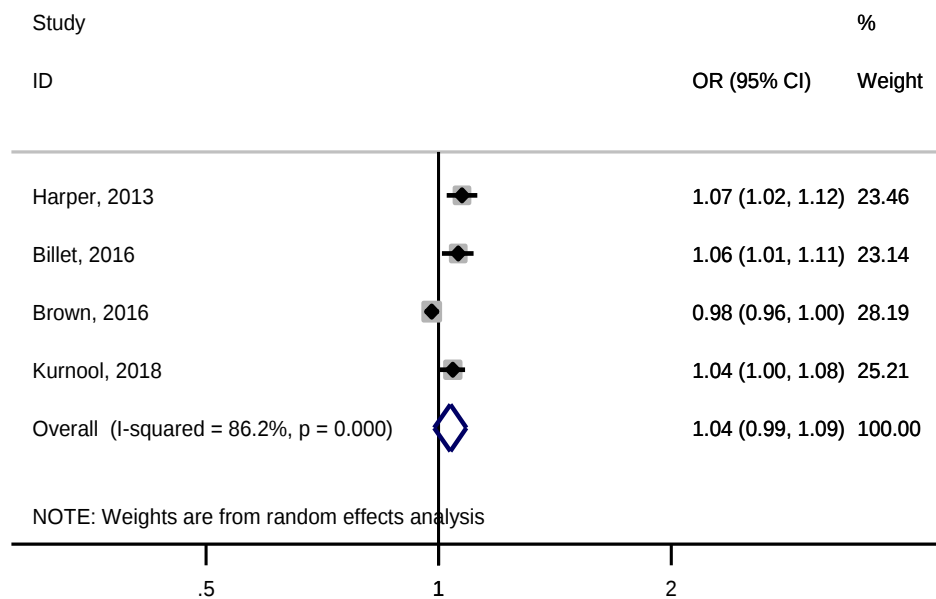


Fig S3. Forest plot for obesity measured as per BMI increase and failure of anti-TNF therapy in IBD patients

obesity and need for surgery

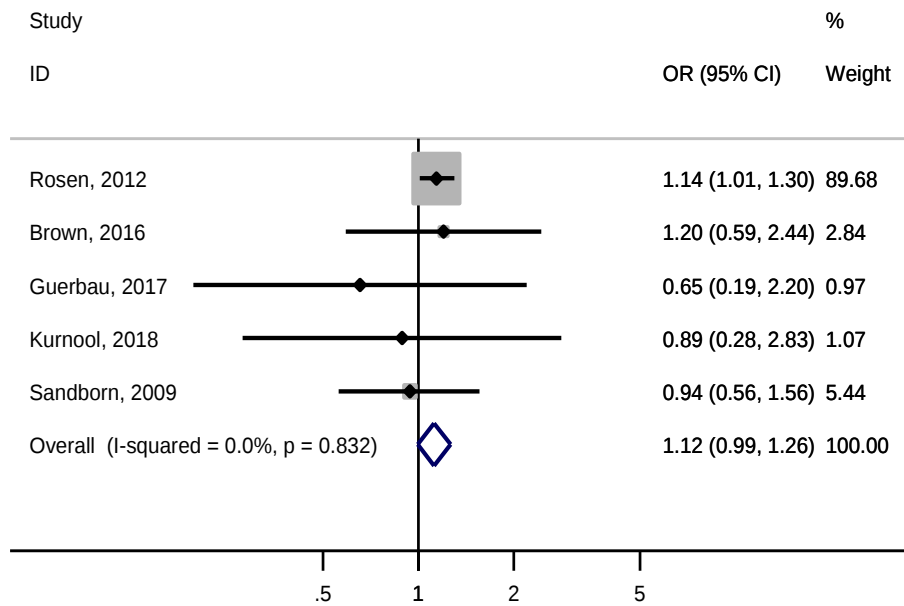


Fig S4. Forest plot for obesity and possibility of surgery in IBD patients

obesity and failure of anti-TNF therapy (full text only)

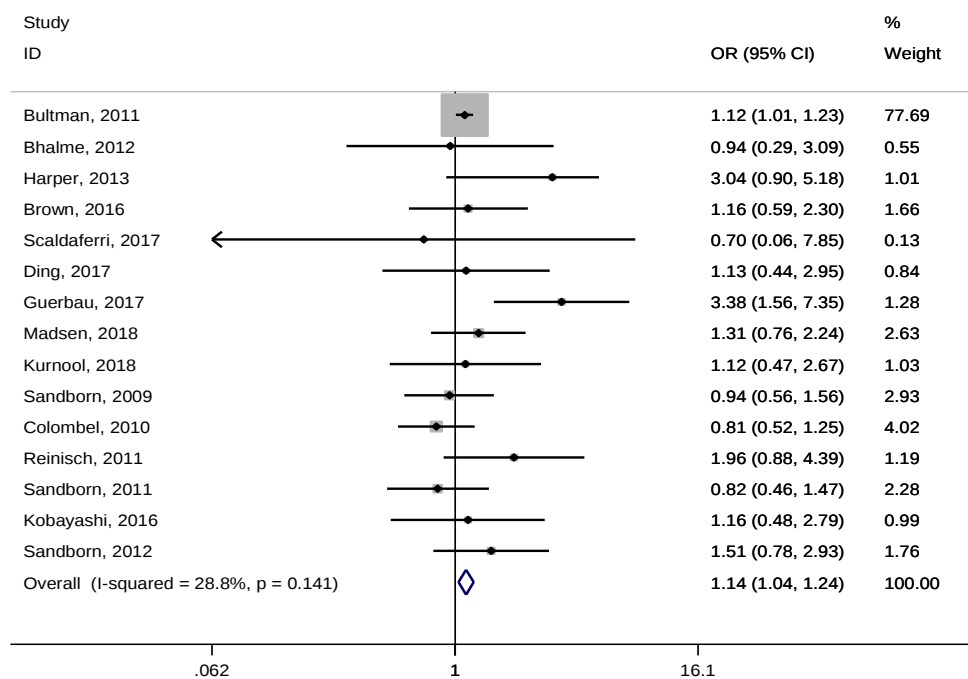


Fig S5. Forest plot for obesity and failure of anti-TNF therapy in IBD patients with only full text studies.

obesity and failure of anti-TNF therapy in IBD patients

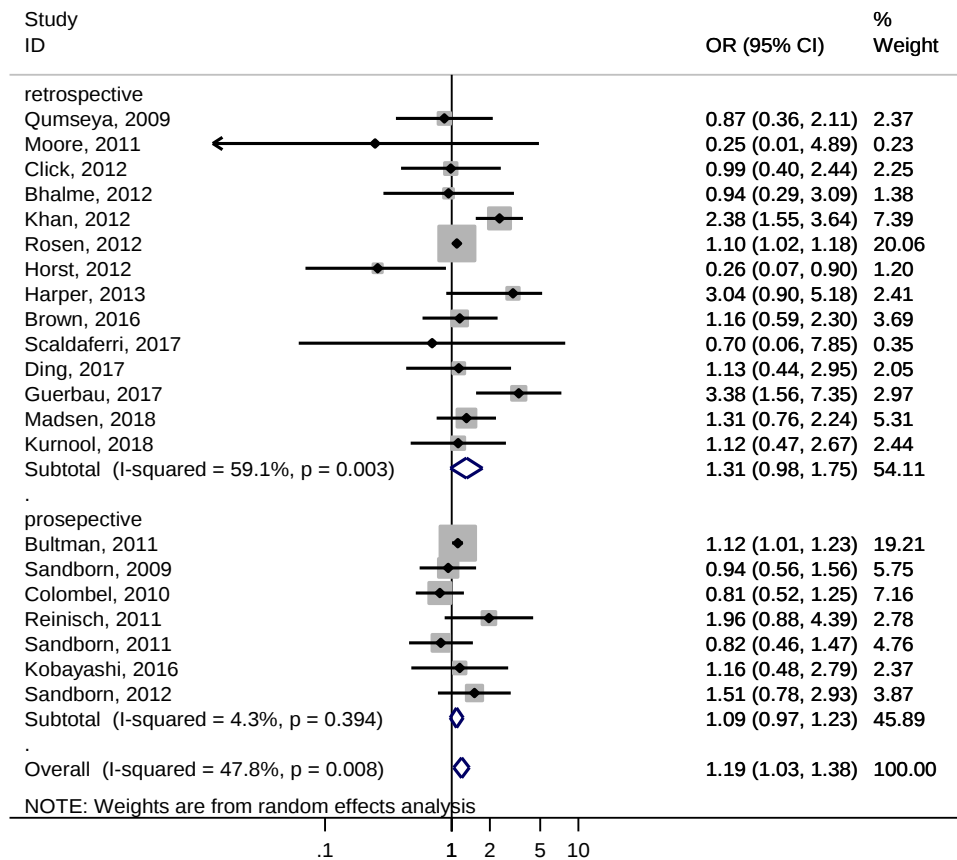


Fig S6. Forest plot for obesity and failure of anti-TNF therapy in IBD patients-subgroup analysis: base on study design (retrospective and prospective)

obesity and failure of anti-TNF therapy in IBD patients (induction vs maintenance)

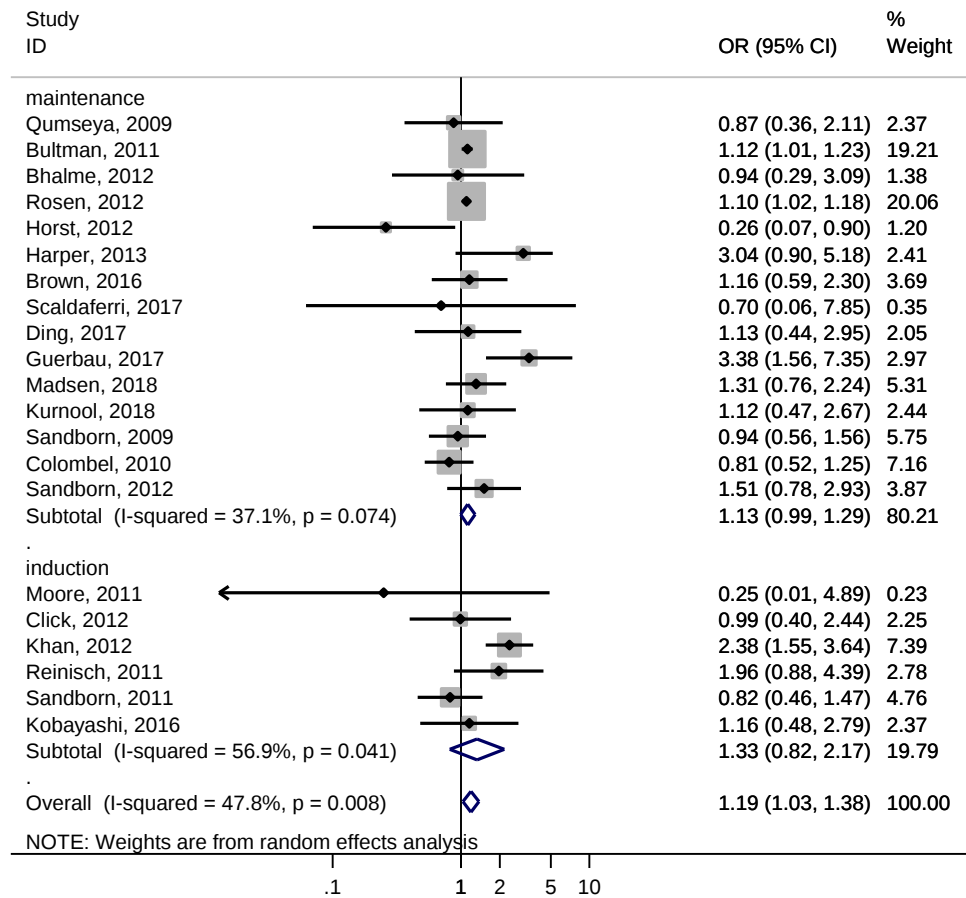


Fig S7. Forrest plot for association between obesity and response to anti-TNF therapy subgroup analyses based on observational period (maintenance and induction)