

Supplementary Materials

Supplement Table 1. Risk of tumor with 5-aminosalicylic acid therapy among IBD patients in Taiwan, 2001-2015.

Outcome	5-aminosalicylic acid (mg)					
	IBD		CD		UC	
	<100	>=101	<100	>=101	<100	>=101
Follow person	417	3389	166	753	251	2636
4 types of tumor ^a						
IR (1/10 ⁵ person-month)	16.78	14.57	10.22	12.75	19.99	14.97
HR (95% CI)	1.00	1.08 (0.42- 2.75)	1.00	1.58 (0.18- 13.73)	1.00	0.98 (0.34- 2.82)
CRC						
IR	6.69	5.74	0.00	6.37	9.96	5.60
HR (95% CI)	1.00	0.93 (0.21- 4.12)	-	-	1.00	0.58 (0.13- 2.69)
Lymphoma						
IR	3.35	4.59	10.22	4.24	0.00	4.66
HR (95% CI)	1.00	1.68 (0.22- 13.04)	1.00	0.40 (0.04- 4.49)	-	-
Liver cancer						
IR	6.71	4.21	0.00	2.12	9.99	4.66
HR (95% CI)	1.00	0.89 (0.19- 4.09)	-	-	1.00	0.67 (0.14- 3.16)
Skin cancer						
IR	3.35	1.15	10.22	2.12	0.00	0.93
HR (95% CI)	1.00	0.48 (0.05- 4.85)	1.00	0.27 (0.01- 10.56)	-	-

All model adjusted by gender, age, hypertension (ICD-9-CM code: 401), diabetes (ICD-9-CM code: 250) and hyperlipidemia (ICD-9-CM code: 272) (disease confirmed by visiting out-patient department for more than 3 times). IR=1/10⁵ person-month. * p<0.05.

a. Including Colon/Rectum cancer (ICD-9-CM code: 153, 154), Liver cancer (ICD-9-CM code: 155), Lymphoma (ICD-9-CM code: 200, 202), skin cancer (ICD-9-CM code: 172, 173) (Confirmed by Registry for Catastrophic Illness Patient Database (RCIPD)).

Supplement Table 2. Risk of tumor with thiopurine therapy among IBD patients in Taiwan, 2001-2015.

Outcome	Thiopurine (mg)					
	IBD			CD		UC
	<100	>=101		<100	>=101	<100 >=101
Follow person	2928	878		498	421	2430 457
4 types of tumor ^a						
IR (1/10 ⁵ person-month)	14.96	14.12		14.99	8.51	14.96 18.08
HR (95% CI)	1.00	1.21	(0.55- 2.64)	1.00	0.69 (0.13- 3.66)	1.00 1.50 (0.62- 3.66)
CRC						
IR	5.97	5.29		8.98	0.00	5.47 9.03
HR (95% CI)	1.00	1.20	(0.34- 4.28)	1.00	-	1.00 2.16 (0.59- 7.95)
Lymphoma						
IR	4.26	5.28		5.98	4.25	3.98 6.00
HR (95% CI)	1.00	1.26	(0.34- 4.71)	1.00	0.63 (0.06- 7.17)	1.00 1.57 (0.33- 7.61)
Liver cancer						
IR	4.69	3.52		0.00	4.25	5.47 3.00
HR (95% CI)	1.00	1.14	(0.25- 5.31)	-	-	1.00 0.73 (0.09- 5.80)
Skin cancer						
IR	1.28	1.76		2.99	4.25	0.99 0.00
HR (95% CI)	1.00	1.68	(0.17- 16.93)	1.00	13.97 (0.10- 2009)	1.00 -

The analysis settings were the same as Supplement Table 1

Supplement Table 3. Risk of tumor with anti-TNF α therapy among IBD patients in Taiwan, 2001-2015.

Outcome	anti-TNF α agent (mg)					
	IBD		CD		UC	
	<100	>=101	<100	>=101	<100	>=101
Follow person	3545	261	673	246	2872	15
4 types of tumor ^a						
IR (1/10 ⁵ person-month)	15.26	6.52	14.12	6.97	15.47	0.00
HR (95% CI)	1.00	0.56 (0.08- 4.13)	1.00	0.61 (0.07- 5.23)	1.00	-
CRC						
IR	5.80	6.52	4.70	6.97	6.00	0.00
HR (95% CI)	1.00	1.66 (0.21- 12.98)	1.00	1.39 (0.12- 16.03)	1.00	-
Lymphoma						
IR	4.71	0.00	7.04	0.00	4.28	0.00
HR (95% CI)	1.00	-	1.00	-	1.00	-
Liver cancer						
IR	4.71	0.00	2.35	0.00	5.14	0.00
HR (95% CI)	1.00	-	1.00	-	1.00	-
Skin cancer						
IR	1.45	0.00	4.69	0.00	0.86	0.00
HR (95% CI)	1.00	-	1.00	-	1.00	-

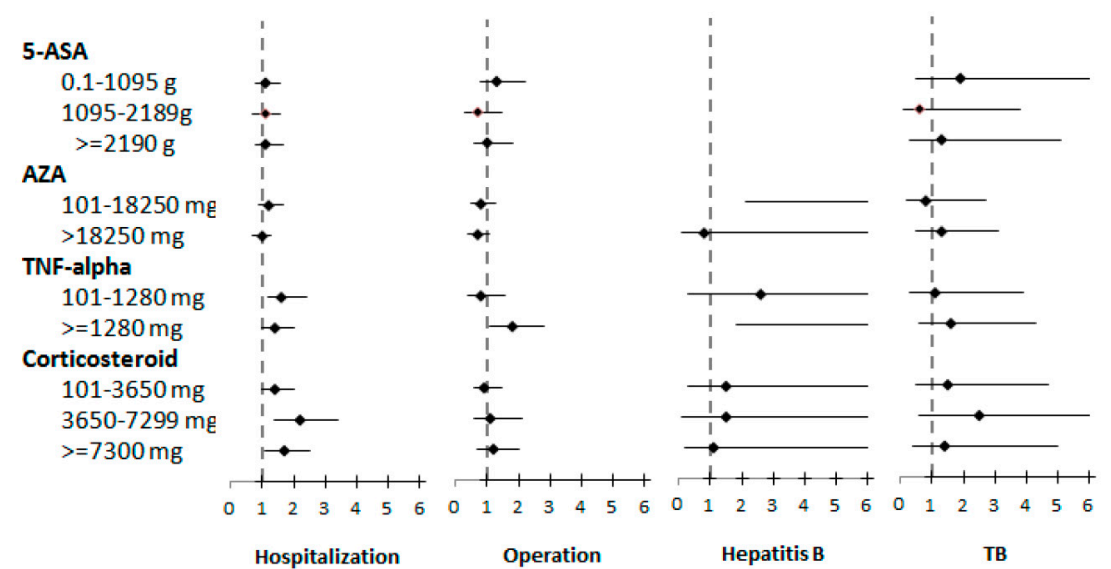
The analysis settings were the same as Supplement Table 1

Supplement Table 4. Risk of tumor with Corticosteroid therapy among IBD patients in Taiwan, 2001-2015.

Outcome	Corticosteroid therapy (mg)					
	IBD		CD		UC	
	<100	>=101	<100	>=101	<100	>=101
Follow person	1257	2549	246	673	1011	1876
4 types of tumor ^a						
IR (1/10 ⁵ person-month)	4.73	18.93	8.68	13.24	4.11	20.53
HR (95% CI)	1.00	3.85* (1.37- 10.80)	1.00	2.06 (0.24- 17.74)	1.00	4.62* (1.41- 15.09)
CRC						
IR	3.55	6.77	8.67	4.41	2.74	7.44
HR (95% CI)	1.00	1.86 (0.53- 6.50)	1.00	0.64 (0.05- 8.11)	1.00	2.59 (0.58- 11.59)
Lymphoma						
IR	0.00	6.29	0.00	6.61	0.00	6.19
HR (95% CI)	-	-	-	-	-	-
Liver cancer						
IR	1.18	5.80	0.00	2.20	1.37	6.82
HR (95% CI)	1.00	4.43 (0.57- 34.30)	-	-	1.00	4.25 (0.55- 33.10)
Skin cancer						
IR	2.36	0.97	17.24	0.00	0.00	1.24
HR (95% CI)	1.00	0.44 (0.06- 3.18)	1.00	-	-	-

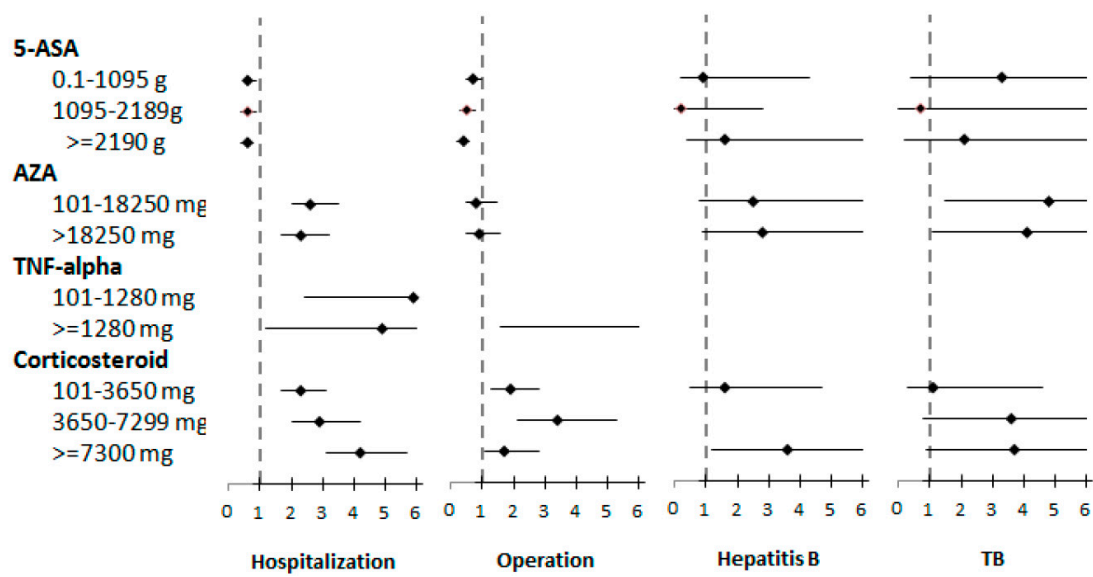
The analysis settings were the same as Supplement Table 1

Supplement Figure 1. HR and 95% CIs for hospitalization, operation, hepatitis B and TB activation among CD patients with different medication.



The analysis settings were the same as Figure 2.

Supplement Figure 2. HR and 95% CIs for hospitalization, operation, hepatitis B and TB activation among UC patients with different medication.



The analysis settings were the same as Figure 2.