

Table 2.1. Cohort studies of azathioprine use

Reference, location, name of study	Cohort description	Exposure assessment	Organ site (ICD code)	Exposure categories	No. of cases/deaths	Relative risk (95% CI)*	Adjustment for potential confounders	Comments
Kandiel et al. (2005), Pennsylvania, USA	Meta-analysis to determine the relative risk of lymphoma among IBD patients exposed to Aza	Medline based meta-analysis	Non-Hodgkin lymphoma		11	SIR 4.18 (2.07–7.51)		Test for study heterogeneity
Bernatsky et al. (2008), Montreal, Canada	Case cohort study comparing 246 SLE patients with cancer against 538 control patients selected from a larger cohort. Approx. 25% of the cancer cases were exposed to Aza vs 34.9% in the control group	Patients selected from a multicentre (15) cohort with the control group representing approximately 10% of the larger cohort	All Cancers	any immuno-suppressant	NR	HR 0.82 (0.50–1.36)	Organ damage and tobacco use	
				Aza	NR	1.02 (0.34–3.03)		
			Haemato-logical malignancies	Aza	46	0.43 (0.09–1.97)		

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Fraser et al. (2002), Auckland, New Zealand	Retrospective review of 2 204 IBD patients with mean duration of 27 mo; mean follow-up after Aza initiation 6.9 yr	626 patients given Aza for IBD	All Cancers	<i>Aza</i>	30	[4.5%]	Age, gender, diagnosis, extent of disease			
				<i>No Aza</i>	70	[4.5%]				
			Colorectum						<i>P</i> = NS	
				<i>Aza</i>	8	2.2%				
				<i>No Aza</i>	28	2.8%				
									<i>P</i> = NS	
Matula et al. (2005), New York, USA	Retrospective cohort analysis of 315 patients undergoing surveillance colonoscopy. 96 exposed to Aza or 6-MP. Average Aza dose 60 mg/d, average duration 7.4 yr	Cohort identified from UC patients undergoing surveillance colonoscopy	Colorectum	Any neoplasia		HR	Threshold dosage for patient entry			
				<i>Any exposure</i>	NR	1.06 (0.59–1.93)				
				> 25 mg	NR	1.00 (0.54–1.87)				
				Advanced neoplasia						
				<i>Any exposure</i>	NR	1.30 (0.45–3.75)				
				> 25 mg	NR	1.49 (0.52–4.32)				

Aza, azathioprine; d, day or days; HR, hazard ratio; IBD, inflammatory bowel disease; mo, month or months; 6-MP, 6-mercaptopurine; NR, not reported; NS, not significant; SIR, standardized incidence ratio; yr, year or years