

Author	Year	Country	Study period	Study type	Follow up (mo)	Multi-center	Prospective	Blinded	n
Iida [17]	2013	Japan	2003-2011	cohort study	n/a	yes	ns	yes (endoscopist)	105
Iyer [55]	2013	India	2009-2011	crossectional	n/a	no	yes	no	87
Yi [40]	2013	China	2006-2011	observational study	n/a	no	ns	ns	226
				crossectional					
Antonelli [58]	2012	Italy	2007-2010	cohort study	n/a	no	no	no	87
Roblin [56]	2012	France	2009	observtvational study	n/a	no	yes	yes (pathologist)	60
Aarnio [59]	2012	Finland	1995-2009	cohort study	n/a	no	no	yes (pathologist)	16
Sipponen [12]	2011	Finland	ns	crossectional	n/a	no	yes	yes (pathologist)	79
Roblin [57]	2011	France	2009	observational study	10	no	yes	yes (pathologist)	42
				observational study					
Kim [53]	2012	Korea	2007-2008	cohort study	n/a	yes	yes	no	72
Criscuoli [51]	2011	Italy	1997-2007	observational cohort	40	no	yes	ns	85
Leveque [50]	2010	France	2005-2009	cohort study	n/a	no	no	ns	53
Suzuki [18]	2010	Japan	1999-2007	case-control study	n/a	no	no	yes	76
Nakase [15]	2010	Japan	ns	cohort study	n/a	no	ns	ns	10
Kim [26]	2010	USA	2000-2006	cohort study	23-29	yes	no	ns	142
Barahona [30]	2010	Mexico / Guatamala	1988-2009	cohort study	n/a	no	no	no	41
Knösel [13]	2009	Germany	ns	historic case control	n/a	no	no	ns	56
Maher [37]	2009	Saoudi Arabia	2005-2007	cohort study	n/a	no	yes	ns	72
Banerjee [22]	2009	India	2005	crossectional	n/a	no	yes	ns	49
d'Ovidio [39]	2008	Italy	2003-2004	observational cohort	24	no	yes	ns	15
Domenech [54]	2008	Spain	2000-2003	observational cohort	n/a	no	yes	yes	94
Yoshino [42]	2007	Japan	2003-2006	cohort study	n/a	no	no	no	30
Minami [45]	2007	Japan	1999-2005	cohort study	1	no	yes	no	23
Matsuoka [62]	2007	Japan	ns	cohort study	2	no	yes	no	69
Dimitroulia [27]	2006	Greece	2000-2003	cross-sectional study	n/a	yes	yes	no	85
Kojima [33]	2006	Japan	1963-2003	cohort study	n/a	no	no	no	126
Alain [52]	2005	France	1998-2000	cohort study	n/a	no	yes	no	91
de Saussure [47]	2004	France	1998-2000	cohort study	n/a	no	yes	no	64
Kishore [46]	2004	India	ns	cohort study	n/a	yes	yes	no	63
Kambham [28]	2004	USA	1992-2002	case control study	n/a	no	no	no	80
Takahashi [34]	2004	Japan	1993-2002	cohort study	n/a	no	no	no	173

Wada [19]	2003	Japan	2000-2002	cohort study	n/a	no	yes	no	47
Rahbar [78]	2003	Sweden	ns	cohort study	n/a	ns	ns	no	23
Cottone [31]	2001	Italy	1997-1999	cohort study	<1	no	yes	no	19
Cooper [49]	1977	USA	ns	cohort study	n/a	no	no	no	46
Eyre-Brook [35]	1986	United Kingdom	1980-1984	cohort study	n/a	no	no	no	26
Wakefield [14]	1992	United Kingdom	ns	case control study	n/a	ns	yes	no	50
Maconi [36]	2005	Italy	1997-2003	observational	n/a	no	no	yes (pathologist)	55
Lavagna [41]	2006	Italy	1994-2001	case control study	n/a	no	no	no	24
Hirata [16]	2007	Japan	17yrs, ns	observational	n/a	no	no	no	27
Lavagna [61]	2007	italy	ns	observational cohort study	4	no	yes	no	60
Van Kruiningen [23]	2007	USA, France, Belgium	2yrs, ns	observational	24	yes	no	no	70
Kuwabara [29]	2007	Japan	1987-2002	observational	n/a	no	no	no	22
Herfarth [24]	2010	USA	2007-2008	observational	6	no	yes	yes (pathologist)	19
Matsumoto [43]	2014	Japan	2000-2011	observational	n/a	no	no	no	222
Kim [38]	2012	Korea	2007-2008	observational	n/a	yes	yes	no	65
Criscuoli [20]	2004	Italy	2000-2003	observational	n/a	no	no	no	42
Do Carmo [48]	2014	Brasil	2011-2012	observational	n/a	no	no	yes	400
Kim [60]	2014	Korea	2007-2008	observational cohort	43	yes	no	no	31
Inokuchi [21]	2014	Japan	2004-2011	case control study	n/a	no	no	no	118
Kim [44]	2014	Korea	2001-2012	case control study	n/a	no	no	yes (endoscopist)	229
Mokhtari [25]	2012	Iran	2010-2011	case control study	n/a	no	no	no	22
Al-Zafiri [32]	2012	Canada	2000-2009	observational cohort study (case control with historic controls)	n/a	no	no	no	612

Region	Studies (n)	Median (%)	Range (%)
East Asia (Japan, China, Korea) [16-19, 21, 29, 33, 34, 38, 40, 42-45, 53]	15	32	0-78
Central Asia (India, Iran, Saudi Arabia) [22, 25, 37, 46]	4	14	8-16
Northern Europe (Sweden, Finland, United Kingdom, Germany, France, Belgium) ¹ [23, 35, 47, 50, 52, 78]	6	13	1-96
Southern Europe (Italy, Greece, Spain) [20, 27, 31, 36, 51, 61]	6	20	4-36
North America (USA, Canada, Mexico) ^a [23, 24, 26, 28, 30, 32, 49]	7	13	1-32
South America (Brazil) [48]	1	5	-

¹1 study was included twice because of intercontinental study-population

Region	Studies, <i>n</i>	Median (%)	Range (%)
East Asia (Japan, China, Korea) ^[38, 53]	2	17	5-29
Central Asia (India, Iran, Saudi Arabia) ^[55]	1	2	-
Northern Europe (Sweden, Finland, United Kingdom, Germany, France, Belgium) ^[52, 56, 57, 59]	4	16	0-38
Southern Europe (Italy, Greece, Spain) ^[20, 51, 54, 58]	4	12	6-33
North America (USA, Canada, Mexico)	-	-	-
South America (Brazil)	-	-	-

Subpopulation	Studies, <i>n</i>	Median (%)	Range (%)
IBD[20, 26, 27, 32, 34, 37, 40, 46-48, 50, 52]	12	12	5-84
UC[17-19, 21, 22, 25, 26, 28, 34, 37, 40, 43, 44, 47, 48, 51]	16	14	6-85
CD[26, 34, 37, 40, 47, 48]	6	2,5	0-78
Steroid refractory IBD[15-17, 24, 28, 31, 37, 42, 45, 53]	10	32,5	0-78
Surgical resection specimens [23, 29, 30, 33, 35, 36, 41, 49, 78]	9	13	1-96
Controls[28, 40]	2	30	0-60
Colectomy specimen in steroid refractory disease[30, 33, 36]	3	27	8-28
Steroid responsive IBD[28]	1	3	-

Subpopulation	Studies(n)	Median (%)	Range (%)
IBD [20, 56, 58]	3	17	6-30
UC[38, 51, 53-56]	6	19,5	2-43
CD [56]	1	11	-
Steroid refractory IBD [20, 53, 54, 58]	4	32,5	11-67
Surgical resection specimens [59]	1	0	-
Controls [54]	1	0	-
Steroid responsive IBD [53]	1	33	-
Colectomy specimen in steroid refractory disease	-	-	-