

SPECIAL TOPIC

Invited review

Epidemiology of IBD in Southern Europe

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SUMMARY

The paper covers the invited lecture on 22nd Panhellenic Congress of Gastroenterology on epidemiology of IBD in southern Europe. Traditional view has been one of high incidence rates of IBD in industrialized countries and low incidence rates in Asia, South America and southern Europe. Published data still support the existence of the north-south gradient in Europe, but many papers emerging from southern Europe within the last decade show incidence rates almost identical with rates in northern Europe and UK. There is still dispute on the reasons for this change, either a real increase in the incidence of IBD in the south or better diagnostic process with identification of milder cases.

The consistent findings of epidemiological studies on IBD have been higher incidence of both ulcerative colitis (UC) and Crohn's disease (CD) in industrialized countries like Europe, North America and Australia comparing with low incidence rates in Asia, Japan and South America. In Europe, the incidence of IBD seems to decrease in a north-south direction.

The high incidence areas of UC include USA, UK, Northern Europe and Australia. Among whites, the incidence ranges from 3 to 15 cases per 100.000 persons per year, with a prevalence of 80 to 120 per 100.000. In countries in which time trends have been studied, the incidence remained remarkably steady between the 1950s and the 1980s, which is in sharp contrast to Crohn's disease which has shown up to a six-fold increase in incidence over a similar period. The incidence in Southern Europe, previously thought to be low, is probably not

too different from that in Northern Europe, now that vigorous epidemiologic studies have been performed. Ulcerative colitis primarily affects young adults (20 to 40 years of age) but may present at all ages. Many series show a secondary peak in incidence among the elderly. Women tend to be affected more commonly than men, although many more recent series have failed to find a sex difference for occurrence in this disorder. It is very difficult to interpret varying sex ratios in different places without the detailed knowledge of smoking habits due to a negative correlation between smoking and UC. Minor variations in incidence have been found among urban as opposed to rural populations, but these differences have not been consistent, and there is probably no true difference.

Accurate epidemiological data on the incidence and prevalence of Crohn's disease are hampered by a lack of gold standard criteria for diagnosis. The complex and expensive diagnostic work-up causes Crohn's disease to be underdiagnosed. Studies relying on the observations of large referral centers may be biased toward reporting more aggressive forms of disease while underestimating the incidence. Misclassification of the disease is also a problem. Unidentified infections, particularly among persons with a single episode of disease and misdiagnosis with UC are not uncommon. Despite this methodological limitations, reproducible geographic and temporal trends in incidence have been observed. Incidence of CD, particularly colonic disease, shows 6-fold increase during years 1960-1980 followed by a plateau phase in countries of high incidence.

In both Europe and North America, higher incidence rates have been noted in more northern latitudes. For example, age-adjusted incidence rates in Alberta, Canada and Norway are 6-10, while they are 0,3-6,1 in southern Europe. As for north-south gradient, the more recent studies show the differential to be less than previously recorded. As for the gender, there is a small excess

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Table 1. Incidence of UC in southern Europe (number of new cases/100.000 inhabitants/year)

Population	Period	Incidence
Italy		
Florence	1990-92	9,6
Florence	1978-87	4,0
Lombardia	1990-94	7,0
Bologna	1986-89	5,0
Greece		
Heraklion	1990-94	9,4
Ioannina	1982-91	4,0
Spain		
Asturia	1994-97	15,5
Aragon	1992-95	7,2
Aragon	1990-92	3,7
Sabadell	1985-89	4,0
Pamplona	1983-93	3,8
Soria	1981-90	3,2
Central Spain	1981-88	3,2
Madrid	1983-88	2,4
Granada	1979-88	2,0
Barcelona	1978-87	0,6
Portugal		
Almada	1991-93	1,6
Croatia		
Rijeka	2001	6,0
Rijeka	1995	2,7
Zagreb	1989	2,0
Zagreb	1980	0,9

risk among women. The age of diagnosis is most frequently between the ages of 15 to 30, with a second peak between the ages of 50 to 80. Differences in clinical presentation among younger and older patients suggest that distinct risk factors are operative at different ages at onset. The pathological findings indicate that there is a greater proportion of colonic disease among older patients, whereas younger patients tend to have ileal disease with greater frequency.

The focus of this paper is on IBD epidemiology in southern Europe. It was the impression for a long time that southern Europe has a very low incidence rate of IBD compared with northern Europe and UK. However, newer studies put in question the existence of north-south gradient. Looking on the published European data on UC, there is north-south gradient across continental Europe and on the Iberian peninsula (Asturia - Barcelo-

Table 2. Incidence of Crohn's disease in southern Europe (number of new cases/100.000 inhabitants/year)

Population	Period	Incidence
Italy		
Florence	1990-92	3,4
Florence	1978-87	1,5
Lombardia	1990-94	3,4
Bologna	1986-89	2,7
Palermo	1987-89	2,7
Spain		
Asturia	1994-97	6,1
Asturia	1975-79	0,8
Aragon	1992-95	3,9
Aragon	1990-92	3,3
Pamplona	1983-93	2,5
Central Spain	1981-88	1,6
Madrid	1983-88	1,3
Soria	1981-90	1,3
Granada	1979-88	0,9
Galicia	1976-82	0,8
Barcelona	1978-87	0,4
Greece		
Heraklion	1994	3,8
Heraklion	1990	1,9
Ioannina	1991-93	0,9
Ioannina	1982-91	0,3
Croatia		
Rijeka	2001	5,6
Rijeka	1994	3,5
Zagreb	1989	1,3

na, Almada) and south-north gradient in Greece (Heraklion - Ioannina). As for CD, there are high incidence areas (>5,5) in Spain and Croatia, medium incidence areas (3,5-5,5) in Spain, Greece and Portugal and low incidence areas (<3,5) in Spain, Italy, Greece and Croatia. It is obvious that additional studies are needed, which will address not only the incidence rates but genetic and environmental factors that influence the appearance of the disease.

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