Crohn's disease
aspects of epidemiology, clinical course, and faecal calprotectin

av

Yaroslava Zhulina

Akademisk avhandling

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Opponent: Hans Strid, Docent och Överläkare Sahlgrenska akademin, Göteborgs Universitet och Södra Älvsborgs sjukhus Göteborg

Örebro universitet
Institutionen för medicinska vetenskaper
701 82 ÖREBRO
Abstract


The overall aim of this thesis was to study epidemiological and clinical changes in the natural history of Crohn’s disease, its phenotype, the need for surgery and pharmacological therapy over time, as well as the role of faecal calprotectin as a biomarker of pathophysiology and disease course.

An increased incidence and prevalence of Crohn’s disease was seen in the period 1963-2010. The proportion of patients with non-stricturing, non-penetrating disease behaviour at diagnosis increased, suggesting that either patients with Crohn’s disease are diagnosed earlier in their disease course today or that the Crohn’s disease phenotype is changing.

A decrease in complicated disease behaviour, an increased use of immunomodulators, and a reduced frequency of surgical procedures five years after Crohn’s diagnosis was observed. The decrease in surgery at five years seemed to be explained mainly by a decrease in early surgery within three months from diagnosis, likely reflecting an increased proportion of patients with non-stricturing, non-penetrating disease. This suggests that the introduction of new treatment alternatives alone does not explain the reduction in surgery rates, and an increasing proportion of patients with uncomplicated disease at diagnosis may also play an important role.

Subclinical mucosal inflammation, mirrored by increased NFkB activity and increased neutrophil activity (i.e. FC and MPO expression), was observed in healthy twin siblings in both discordant monozygotic and discordant dizygotic twin pairs with IBD. These findings strongly support the hypothesis of an ongoing subclinical mucosal inflammation at the molecular level in healthy first-degree relatives of IBD patients.

Baseline FC as well as consecutive FC measurements predict relapse in IBD. The doubling of FC value increased the risk of relapse by 101% in the following three months. This increased risk attenuates with time by 20% for every three month period since the sample was obtained.

Keywords: Crohn’s disease, epidemiology, faecal calprotectin.

Yaroslava Zhulina, School of Health and Medical Sciences
Örebro University, SE-70182, Sweden,
yaroslava.zhulina@regionorebrolan.se