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Profile of pediatric Crohn's disease in Belgium☆☆☆

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Abbreviations: BIRD, Belgian IBD Research and Development Group; BELCRO, Belgian Registry for Pediatric Crohn's Disease; BeSPGHAN, Belgian Society for Pediatric Gastroenterology, Hepatology and Nutrition; CRF, clinical report file; CRP, C reactive protein; CD, Crohn's disease; IBD, inflammatory bowel disease; GI, gastrointestinal; m, months; PCDAL, Pediatric Crohn's Disease Activity Index; PGA, Physician's Global Assessment; w, weeks; y, year; 5-ASA, 5-aminosalicylic acid; 6-MP, 6-mercaptopurin

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Abstract

Aim: A Belgian registry for pediatric Crohn's disease, BELCRO, was created. This first report aims at describing disease presentation and phenotype and determining associations between variables at diagnosis and registration in the database.

Methods: Through a collaborative network, children with previously established Crohn's disease and newly diagnosed children and adolescents (under 18 y of age) were recruited over a 2 year period. Data were collected by 23 centers and entered in a database. Statistical association tests analyzed relationships between variables of interest at diagnosis.

Results: Two hundred fifty-five patients were included. Median age at diagnosis was 12.5 y (range: 1.6–18 y); median duration of symptoms prior to diagnosis was 3 m (range: 1–12 m). Neonatal history and previous medical history did not influence disease onset nor disease behavior. Fifty three % of these patients presented with a BMI z-score < −1. CRP was an independent predictor of disease severity. Steroids were widely used as initial treatment in moderate to severe and extensive disease. Over time, immunomodulators and biological were prescribed more frequently, reflecting a lower prescription rate for steroids and 5-ASA. A positive family history was the sole significant determinant for earlier use of immunosuppression.

Conclusion: In Belgium, the median age of children presenting with Crohn's disease is 12.5 y. Faltering growth, extensive disease and upper GI involvement are frequent. CRP is an independent predictive factor of disease activity. A positive family history appears to be the main determinant for initial treatment choice.

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1. Introduction

The incidence of Crohn's disease (CD) increases, especially in westernized countries.¹ Approximately 25% of patients present during childhood.² In children a more severe and extensive disease phenotype is described compared to adults.³ The impact on the child's growth and development is an important factor determining treatment strategies.

The natural course of CD remains unpredictable. Based on adult literature, risk factors for severe disease are younger age at diagnosis, the presence of perianal disease and smoking.⁴ In pediatrics, these risk factors need confirmation and other factors, possibly related to growth and development need to be identified. High concordance of CD in monozygotic twins and a positive family history for inflammatory bowel disease (IBD) in 5–20% confirm an underlying genetic susceptibility.⁵ Environmental influence is proven by the deleterious effect of smoking and the rise in CD in immigrant populations from regions with

low prevalence to regions with high prevalence.¹ Regional information, captured in registries, aims at providing insights in disease presentation, disease course and influencing environmental factors.^{6,7} We therefore initiated a registry of Belgian pediatric CD patients (BELCRO). In this manuscript we report on patient characteristics at diagnosis and for previously diagnosed patients at inclusion in the database.

2. Materials and Methods**2.1. Population**

BELCRO was initiated in May 2008 through a collaboration of the IBD working group of the Belgian Society for Pediatric Gastroenterology, Hepatology and Nutrition (BESPGHAN) and the Belgian IBD Research and Development Group (BIRD). The aim of the registry is to describe a cohort of old and newly

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