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Original Article

Is prevalence of colorectal polyps higher in patients with family history of colorectal cancer?

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ABSTRACT

Objectives: To assess the prevalence of polyps in patients with a family history of colorectal cancer, in comparison to asymptomatic individuals with indication for screening.
Methods: A prospective study in a group of patients who underwent colonoscopy between 2012 and 2014. Patients were divided into two groups: Group I: no family history of colorectal cancer, and Group II: with a family history in first-degree relatives. Demographic characteristics, findings on colonoscopy, presence, location and histological type of polyps were evaluated, comparing the two groups.
Results: 214 patients were evaluated: 162 in Group I and 52 in Group II. The distribution of patients with polyps was similar in relation to gender: polyps were evidenced in Group I in 33 (20%) female patients vs. 10 (6%) male patients ($p = 1.00$); in Group II, the presence of polyps was evidenced in 9 (17%) female patients vs. 2 (4%) male patients ($p = 1.00$). Polypoid lesions were found in 54 patients (25%), with 43 (26%) in Group I and 11 (21%) in Group II. The prevalence of adenomas was similar in both groups (Group I = 18/37% vs. Group II = 10/50%) ($p = 0.83$).
Conclusion: In this preliminary study, no correlation was found between prevalence of polyps and a family history of colorectal cancer.

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A prevalência de pólipos colorretais é mais elevada em pacientes com história familiar de câncer colorretal?

Palavras-chave:
Videocolonoscopia
Pólipos
Prevenção
Câncer colorretal

RESUMO

Objetivos: Avaliar a prevalência de pólipos em pacientes com história familiar de câncer colorretal comparando com indivíduos assintomáticos com indicação para rastreamento.
Métodos: Estudo prospectivo realizado em um grupo de indivíduos submetidos à colonoscopia entre 2012 e 2014. Os pacientes foram distribuídos em dois grupos: Grupo I: sem história familiar de câncer colorretal e Grupo II: com história familiar em parentes de primeiro grau. Avaliaram-se características demográficas, achados na colonoscopia, presença, localização e tipo histológico dos pólipos, comparando os dois grupos.
Resultados: Foram avaliados 214 pacientes, 162 incluídas no grupo I e 52 no grupo II. A distribuição dos pacientes com pólipos foi similar em relação ao sexo, sendo evidenciado pólipos no Grupo I em 33 (20%) pacientes do sexo feminino vs. 10 (6%) masculino (p = 1,00) e no Grupo II, presença de pólipos em pacientes do sexo feminino em 9 (17%) vs. 2 (4%) masculino (p = 1,00). Foram encontradas lesões polipóides em 54 pacientes (25%), sendo 43 (26%) no grupo I e 11 (21%) no grupo II. A prevalência de adenomas foi similar em ambos os grupos (Grupo I = 18/37% vs. Grupo II = 10/50%) (p = 0,83).
Conclusão: Neste estudo inicial, não foi encontrada correlação entre a prevalência de pólipos e o histórico familiar de câncer colorretal.

Introduction

Colorectal cancer (CRC) is the third most common cause of cancer worldwide in both genders and the second leading cause in developed countries.[1] In Brazil, the estimated incidence for the year 2014 is 15.44 and 17.24 new cases per 100,000 men and women, respectively.[2] It is well established that the great majority of CRC cases (adenocarcinomas) is due to benign tumors (adenomas), a process known as adenoma-carcinoma sequence, originally described by Vogelstein.[3]

Twenty-five percent of CRC cases occur in individuals with at least one first-degree relative (FDR) with a diagnosis of CRC not associated with a known genetic syndrome.[4] These individuals have, on average, twice the risk vs. general population's risk to develop CRC in their lifetime.[5]

Patients with CRC and their families are candidates for different screening strategies, thanks to the increased risk of developing colorectal cancer and to the possibility of primary and secondary prevention, allowing for a longer survival for patients treated in the early stages of this disease.[6] Recent studies have favored colonoscopy as the best screening method, for allowing diagnosis and treatment of precursor lesions and obtaining biopsies of suspicious lesions.[7,8]

Currently, the reality of public health in Brazil, especially in Northeast Region, does not allow full access to colonoscopy screening tests for the whole asymptomatic population (including those with a family history) from the age of 40 to 50 years onward.

In the same line, there are few studies evaluating the specific group of asymptomatic individuals with no family history. Therefore, studies are needed to assess the prevalence of these precursor lesions, aiming to demonstrate, for this population, the benefits of a screening strategy. This study aims to assess the prevalence of polyps in patients with family history of colorectal cancer, compared to asymptomatic individuals undergoing colonoscopy with indication for a screening procedure.

Methodology

This is a cross-sectional, analytical, prospective, comparative study, including asymptomatic patients who underwent screening colonoscopy at the Hospital Universitário Walter Cantídio, Universidade Federal do Ceará (HUWC/UFC) and at the Coloproctology Center, Hospital São Carlos, in the city of Fortaleza – Ceará, from January 2012 to January 2014. Participants were divided into two groups: Group I – without family history of CRC, and Group II – with a family history of sporadic CRC in FDR. Screening colonoscopy was indicated for patients aged from 50 years onward in asymptomatic individuals without family history (Group I), and for those aged from 40 years onward, or 10 years before CRC diagnosis age in younger individuals, in patients with family history (Group II).

Demographic characteristics such as age, gender, body mass index (BMI) and family history of CRC, as well as data obtained with colonoscopy (quality of colon preparation [good, optimal or bad]), progression of the device until reaching cecum (full examination), presence of polyps, and histopathological examination (histology type for polyps). The study was approved by the Ethics Committee of Hospital Universitário Walter Cantídio.

Patients with family history of familial adenomatous polyposis (FAP); hereditary nonpolyposis colorectal cancer (HNPCRC) according to Amsterdam criteria II[9]; with a known