

Impact of Ramadan on crohn's disease

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Abstract

Crohn's disease is a chronic inflammatory bowel disease (IBD). Ramadan is the month in which every adult Muslim must observe a daytime fast from sunrise to sunset. The purpose of our work is to study the impact of Ramadan on patients with Crohn's disease. For this, we carried out a descriptive retrospective study during the month of Ramadan 2011. All patients with Crohn's disease presenting regularly in consultation for an average duration of 18 years (1993-2011) were included in the study. We collected 100 cases that met our inclusion criteria's. Our study included 56 women and 44 men with a mean average of 35.94 years (range: 18 to 70 years), 34% of the patients were operated on, Crohn's disease was ileocolic in 60% of the cases, ileal in 20% of the patient's case and colic in 20% of cases. Treatment was based on immunosuppressants in 64% of cases, aminosalicylates in 18% of cases, corticosteroids in 12% of cases and anti-TNF α in 6% of cases. Fasting was well tolerated in 94% of the cases with a clear improvement of the clinical symptomatology during the day, however only 6% of the patients did not support the fast requiring its interruption, the reasons for the interruption of the fast were dysfunctionnal uterine bleeding responsible for a deep anemic syndrome in one case and epigastralgia unrelated to the disease in patients taking corticosteroids in 2 cases. Throughout our work we note that the majority of patients have a good tolerance of fasting, however the reasons for its interruption were not related to Crohn's disease itself but to other related factors.

Introduction

Crohn's disease is a chronic inflammatory bowel disease (IBD). Ramadan is the ninth lunar month during which every adult Muslim must observe a daytime fast by abstaining from eating and drinking every day of the month (29 to 30 days) from sunrise to sunset. The 2 or 3 meals are taken exclusively in the evening for a variable period of time depending on the seasons (long in winter and short in summer) and night time sleep is often delayed and shortened. These lifestyle changes lead to digestive, nutritional and behavioural changes [1].

There is some evidence for the effect of Ramadan fasting on gastrointestinal function [2], however, work on the analysis of the effects of fasting on chronic inflammatory bowel disease remains very scarce.

Aim of study

The purpose of our work is to study the impact of Ramadan on patients with Crohn's disease.

Materials and methods

This is a prospective descriptive study during the month of Ramadan 2011 from August 02 to August 31, 2011 (30 days). All patients with Crohn's disease presenting regularly for an average of 18 years (1993-2011) were included in the study, excluding those with exclusively perianal manifestations involvement. We collected 100 cases that met our inclusion criteria's. All patients had a clinical assessment the day before fasting (day 0), two weeks (day: 14) later and at the end of the month (day:30). Tolerance of fasting was judged on the intensity of symptoms at day 0, day 14, day 30.

Results

Our study included 56 women and 44 men with a mean age of 35.94 years (range :18 to 70 years), 34% of the patients were operated on, Crohn's disease was ileocolic in 60% of the cases, ileal in 20% of the patients, case and colic in 20% of cases. Treatment was based on immunosuppressants in 64% of cases, aminosalicylils in 18% of cases,

corticosteroids in 12% of cases and anti-TNF α in 6% of cases. Fasting was well tolerated in 94% of the cases with a clear improvement of the clinical symptomatology during the day, however only 6% of the patients couldn't afford fasting requiring its interruption, the reasons for the interruption of the fast were dysfunctionnal uterine bleeding responsible for a deep anemic syndrome in 02 case and epigastralgia unrelated to the disease in patients taking corticosteroids in 04 cases.

Discussions

Impact of nutrition on intestinal inflammation and host susceptibility in the context of Crohn's disease

Recent studies have shown that the abnormal inflammatory response seen in patients with Crohn's disease involves the interaction between the gut microbiota, genetic and environmental factors.

Also according to a recent study, it has been shown that the Western-type diet leads to a modification of the intestinal microbiota characterized by an increase in opportunistic pathogenic bacteria, thus leading to the establishment of an inflammatory microenvironment; thus the increased consumption of fast fats and sugars in western countries appears to be correlated with an increased incidence of crohn's disease [3].

Ramadan and Crohn's disease

Our literature search revealed an article carried out by Tavakkoli et al. [4], concerning sixty IBD patients who were in remission and

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fasted according to their wishes, were subjected to assessments of quality of life, psychological state and severity of symptoms before and after Ramadan. Several observations have shown a link between the living conditions that cause physiological distress and the clinical manifestations of IBD, although some studies have not shown a link between stressful life events and relapses [5]. These results confirmed the prevailing impression that psychosocial stress contributes to the clinical course of IBD. The "normal" circadian pattern changes in fasting Muslims. Fasting subjects stay awake at night and spend more time sleeping during the day than in other months. Previous studies have shown that people tended to participate in spiritual activities and stress reduction during this month [6]. They drink fewer caffeinated drinks and smoke less [7]. In addition to a decrease in gastric secretion, intestinal contractility decreases during fasting to once every 2 hours [8]. Accordingly, fasting may be of benefit for patients with spastic colitis and certain other bowel motility disorders [2]. In addition, one study showed an increase in the level of subjective and objective irritability during the fasting period [9]. So, there is no observed correlation between the number of days fasted and the severity of the disease, which means that the fast had no negative effect on the course of the disease. Moreover, the quality of life did not change after Ramadan, indicating that although fasting placed physiological stress on the body, its effects were not significant. Therefore, IBD patients who insist on fasting, are in remission, and are on maintenance therapy without co-morbidities, can fast as desired, since the fast has not altered the severity of the disease or quality of life of patients with IBD.

This is consistent with our study where fasting had no negative effect on our patients, and its interruption was related to other factors.

Conclusion

The majority of our patients exhibited good tolerability of the fast, however the reasons for its discontinuation were not related to Crohn's disease itself but to other associated factors. A larger sample with study of other parameters is useful in the future to set the maximum conclusion.

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