



## LETTER TO THE EDITOR

## Does obesity complicate inflammatory bowel diseases?

Dear Sir,

Although it seems an unlikely co-morbidity due to the prevalence of malnutrition in inflammatory bowel diseases (IBD) patients, obesity has been observed in these patients, even in children.<sup>1</sup> The obesity seems to be associated with increased disease severity, anorectal complications and hospitalizations in Crohn's disease (CD) patients.<sup>2</sup> There are report benefits in clinical course and inflammatory markers after reduction of weight in obese ulcerative colitis (UC) patients.<sup>3</sup> However, there are reports of two obese patients, one who developed UC after Mason's vertical banded gastroplasty, and in another case UC was exacerbated after placement of an intragastric balloon.<sup>4,5</sup> Studies about association between the frequency of obesity and IBD are scarce. We aimed to determine the frequency of overweight in Crohn's disease and ulcerative colitis patients and its association with the clinical course of IBD.

We evaluated one hundred and fifteen IBD patients (64 CD and 51 UC). Data were collected from the medical records on medical history and clinical course in the last year. Overweight was diagnosed in 37.5% of CD patients and in 21.6% of those with UC. The use of drugs was not associated with overweight ( $P > 0.05$ ), however in UC patients we observed that the disease activity, use of steroids and immunosuppressive drugs were more frequent among those without overweight than those with overweight ( $70.0\% \times 30.0\%$ ,  $P = 0.24$ ;  $80.0\% \times 20.0\%$ ,  $P = 1.00$ ;  $90.0\% \times 10.0\%$ ,  $P = 0.43$ , respectively), although these findings were not statistically significant. There was a statistically significant association between overweight and the presence of abscesses in CD patients ( $75.0\% \times 25.0\%$ ,  $P = 0.044$ ). Half (4/8) of the abscesses were in the perianal region and 2/8 in the anal region, nevertheless there was no association between abscesses location and overweight ( $P = 1.00$ ). Among CD patients who were overweight, the majority had fistula, however this pattern was not statistically significant ( $P = 0.193$ ).

Interestingly, obesity was more common among patients with Crohn's disease compared to those with ulcerative colitis. In patients with overweight, a perianal abscess may result from the maceration and bacterial infections of the anal mucosa due to increased friction and sweating on the site. Alternatively, the increased production of cytokines in adipose tissue in this

region, especially TNF- $\alpha$  and interleukin-6 (IL-6), may explain the development and perpetuation of this injury.<sup>2</sup>

In conclusion, this study suggests that obesity may be associated with a worse clinical outcome in CD patients compared to UC patients. We emphasize the occurrence of obesity in CD patients and the association between overweight and the presence of abscesses. Until recently, obesity has not been considered as a risk factor that could contribute to a more severe clinical status in IBD patients, especially in those with CD. This study had no funding sources and the authors have no conflicts of interest.

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Ana Tieko Meyer Nascimento  
Raquel Rocha\*

Fernanda Gomes Coqueiro

Department of Sciences of Nutrition, School of Nutrition,  
Federal University of Bahia, Salvador, Bahia, Brazil

\*Corresponding author.

E-mail address: [raquelrocha2@yahoo.com.br](mailto:raquelrocha2@yahoo.com.br) (R. Rocha).

Genoile Oliveira Santana  
Andre Castro Lyra  
Gastroenterology Unit, University Hospital Professor  
Edgard Santos, Federal University of Bahia, Salvador,  
Bahia, Brazil

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