

INTESTINAL MICROBIOTA IN PATIENTS WITH BACTERIAL INFECTIONS OF THE RESPIRATORY TRACT TREATED WITH AMOXICILLIN

THESIS. M. T. F. D. Monreal submitted this thesis for her Doctorate in Tropical Diseases at Botucatu School of Medicine, São Paulo State University, UNESP, Botucatu, São Paulo, Brazil, 2003.

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ABSTRACT: The gastrointestinal tract contains an enormous variety of metabolically active aerobic and anaerobic bacteria that interact with each other in a complex ecosystem. This microbiota performs important functions in the metabolism, nutrition, immunity and protection against the colonization by pathogenic microorganisms. Several factors can influence this microbiota, among them are age, diet, inflammatory and infectious processes, and use of antimicrobial agents. Thus, this study was developed with the objective of verifying the respiratory tract bacterial infections' and the treatment with amoxicillin's influence on the patient's normal intestinal microbiota. The respiratory tract bacterial infectious process influenced the patient's intestinal microbiota. There was significant reduction in the amount of CFU/g feces from microorganisms of the *Bacteroides* and *Lactobacillus* genus. The use of amoxicillin also influenced the intestinal microbiota. Significant reduction was observed in the amount of CFU/g feces from microorganisms of the *Bifidobacterium* and *Lactobacillus* genus. It is important to identify modifications in the composition of the intestinal microbiota, once the reduction of these microorganisms can cause damage to the host. One of these damages is the decrease in the resistance to colonization. Those damages, when accompanied by doctors, can be minimized with measures related to the therapeutic and alimentary conducts, aiming to reduce the noxious influence on the gastrointestinal ecosystem.

KEY WORDS: intestinal microbiota, amoxicillin, *Bifidobacterium*, *Bacteroides*, *Lactobacillus*.

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