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Gut microbiota and chronic exercise in diabetic patients: not only bacteria

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1 **Gut microbiota and chronic exercise in diabetic patients: not only bacteria**
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18 Conflicts of interest: none to declare.
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1 TO THE EDITOR: In a recent interesting paper Pasini *et al.* have shown that exercise controls diabetes
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4 also by modifying intestinal mycobiota composition and gut barrier function. In particular, while
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6 diabetes was associated with significant gut mycetes overgrowth, exercise improved glycemia and
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8 reduced gut mycetes overgrowth. The analysis of the gut microbiota included bacterial species,
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10 *Candida Albicans* and *Mycetes spp.* Only *Candida albicans* and *Mycetes spp.* were significantly
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12 reduced after exercise ($P = 0.043$ and $P < 0.001$, respectively).¹
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15 We would like to highlight three crucial points regarding the results of this study.
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17 First, each strategy aiming to obtain the homeostasis of the microbiota should consider the
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19 mycobiota. This is not always considered in a time of prevalent interest toward the bacteria.²
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22 Second, the study of the gut permeability, as indicator of gut barrier function, by the search for
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24 zonulin³ should be mandatory in this type of investigations.
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27 Third, more and more data confirmed the potential involvement of gut microbiota in several extra-
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29 intestinal diseases.^{4,5}
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