iazolonone. We are not aware of any published report of cross-reactivity between metronidazole and ketoconazole.

FDE due to cross-reacting drugs have been also observed between non-steroidal anti-inflammatory drugs of the oxicam group (piroxicam, tenoxicam, droxicam), and between oxyphenbutazone and phenylbutazone.[8]

Although this patient did not have any underlying condition that might predispose him for FDE, it has been proposed that diseases that are accompanied by intense immune stimulation, such as autoimmune and infectious diseases (for example, HIV and other viral infections), can increase the susceptibility to develop allergic drug reactions, especially those mediated by T cells (type IV allergic reactions).

The diagnosis of FDE is generally done by means of a history of drug exposure and examination of the lesions. The drug aetiology can be confirmed through a provocation test (contraindicated in patients with severe reactions) and by means of patch testing.[8] In our case the patient had induced himself the skin lesions repeatedly during five years, and the diagnosis was so clear that a confirmatory challenge or patch tests were not considered necessary. The patient was instructed to avoid all imidazolic drugs, and a list of medications that contain the imidazole ring was provided. After avoidance for three years, no new skin lesions have appeared.

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Heavy metals and antioxidant trace elements in children with recurrent wheezing

In their very interesting article Razi et al.[1] have investigated the relation between serum heavy metals and antioxidant trace elements (selenium and zinc) in children with recurrent wheezing. They conclude that children with hyper-responsiveness may be more susceptible to exposure to mercury and lead, as happens with environmental exposure to heavy metals. They believe that heavy metals are important factors contributing (if not primary) to frequent wheezing.[1] The authors are to be congratulated for making this pivotal study. We would like to raise some points regarding the methods used in determining heavy metals in serum samples. It is feasible that exposure to toxic metals may have made children more vulnerable to recurrent wheezing attacks in comparison with other subjects, as noted by the authors in their study.[1] Nevertheless, the speculation that both mercury and lead may cause recurrent wheezing via a direct contrast effect on antioxidant trace elements, would have been strengthened greatly if they had used whole blood instead of serum samples from children to assess environmental exposure to heavy metals. In fact, mercury and lead are bound to red blood cells in the bloodstream.[2] We have described elsewhere[3] that both serum and/or plasma does not correctly reflect the degree of mercury and lead body burden.[2]

Given that there was an observed association between serum heavy metals and recurrent wheezing,[1,4,5] extending this research is of paramount importance. In the future, it will be essential to include whole blood toxic metals analysis for the assessment of wheezing disorders in childhood.

Conflict of interest statement

We have no conflicts of interest connected with this work.

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Serum heavy metal and antioxidant element levels of children with recurrent wheezing

Dear Editor,

First of all, we would like to thank P.D. Pigatto et al. for their valuable contributions. For antioxidant trace elements and toxic metals, working on the serum may offer information about the current states of the elements, yet working on these elements within tissues (hair, erythrocyte, etc.) may give a much clearer picture about body burden or long-term exposure.[1] On the other hand, if the impaired association between heavy metals and antioxidant elements exists for a long time, this impaired relationship will be expected to be seen in serum samples. In our study, we attempted to show the relationship between heavy metals and antioxidant elements by comparing these samples within the serum for a specific period of time, and our results demonstrated the current relationship between these specimens. It could be better if we worked on the tissues rather than working on these samples in the serum in order to show such conditions, as the fact that this relationship is really problematic for a long period of time, and also being exposed to these heavy metals for a long time or real body burden of these specimens.

Actually, having conducted this pioneering study, we compared the serum antioxidants capacities with antioxidant elements by working on hair samples, and in parallel to our findings in the serum samples, we have found that the level of hair antioxidant element levels in the children with RW and that of their serum antioxidant capacities are low (this study is in the process of being written at the moment).

Conflict of interest

There is no financial relationship with a biotechnology and/or pharmaceutical manufacturer that has an interest in the subject matter or materials discussed in the submitted manuscript. None of the authors have no conflicts to disclose.

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