Reviewer’s report

Title: Transient symptomatic hyperglycaemia secondary to inhaled fluticasone propionate in a young child: a case report

Version: 0 Date: 24 Nov 2015

Reviewer: Fabiano Di Marco

Reviewer's report:

Mara Lelli et al,

described a case of paediatric transient symptomatic hyperglycaemia after treatment with inhaled FP and highlighted the importance of considering this potential adverse event and the necessity of informing parents of the possible risks associated with this drug.

Even if the topic (i.e. safety of a drug largely used for asthma treatment, both in adult and children) is relevant, I'm not totally convinced that the conclusion are totally supported by the case reported presented.

In fact, as discussed by the same Authors, this is the first case described, with two aspects indeed singular. The first is the dose of the drug (100 mcg bid) of a molecule with a known low systemic bioavailability (eg. Int J Clin Pharm (2014) 36:1222-1229). The second is that, as stated by Authors, the child experienced 6 additional episodes of wheezing, 3 of which were severe enough to require oral corticosteroid administration to be controlled. It is really difficult to understand why a low dose of FP, but not 3 treatments with systemic steroids, can lead to hyperglycaemia. Moreover, Authors reported that "The parents confirmed that the recommended dose of FP had been administered with no increase in the amount of drug"; as largely known, the self-reported level of drug compliance (or, in this case, the reported level of compliance of parents) has a very low accuracy.

Due to all the reasons above, I'm not convinced that the conclusion of the case report (i.e. This case report highlights the importance of informing parents of the possible risks associated with the use of this drug.) are indeed supported by the evidence. By a clinical point of view, then, in a child with 6 episodes of wheezing, 3 of which were severe enough to require oral corticosteroid administration, the withdrawal of FP (which demonstrated to control asthma and with a correlation between hyperglycemia and the drug not totally convincing by my point of view), could lead to the decision to reintroduce the drug at lower dose with a very close clinical and biochemical monitoring (but I can understand the choice of Authors).

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.
Unable to assess

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Unable to assess

**Are the conclusions drawn adequately supported by the data shown?**
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No

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
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Not relevant to this manuscript

**Quality of written English**
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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