LETTER TO THE EDITOR

Treatment of hay fever with a single intramuscular (i.m.) injection of corticosteroid

Dear Editor,

'Help, not harm'

We would like to respond to the comments within Jean Bousquet's (JB's) editorial [1] regarding our systematic review of i.m. corticosteroid injection for the treatment of severe hay fever [2]. We concur with JB that the primary aim of all doctors is to help and not to harm our patients. Our interest in this topic stems from the observation that i.m. corticosteroid treatment for severe hay fever is used with apparent success in primary care when basic treatments are insufficient to provide relief, and the fact that guidelines on this subject [3–6] discourage this cheap, simple and apparently effective treatment.

Initially, we would like to emphasize that our systematic review [2] and our conclusions focus on the treatment of severe hay fever in adults, so JB's reference to tissue atrophy in children we consider to be inappropriate.

JB questions our search strategy and charges that "most adverse events are post-marketing surveillance studies" and "it should be important to examine whether other studies are available". In the systematic review we used the search term "[AND] clinical trials" to avoid laboratory studies. We agree that when looking for possible side effects, it is important also to look for post-marketing and register studies. The only one we found was the Danish register study of 330,000 patients with 26 minor side-effects which we cited, and we found no post-marketing studies. We also reported minor side effects from 18 clinical trials of 1352 patients. Naturally we agree that it is important to search for all relevant studies, be they clinical, registration or post-marketing studies – but we are unaware of any others.

JB cites the risk of avascular necrosis. This statement is based on a single case report with unclear causality [7]. If we search further into research on osteonecrosis, we find a ten-year prospective study on high dosage steroids [8], which concludes that there is "no direct relationship between corticosteroid dosage and the development of femoral head osteonecrosis in 1420 hip-years", as none of the subjects developed osteonecrosis.

The most serious point in JB's editorial is the allegation that i.m. injections may cause fatalities. Looking at the reference quoted by JB [9], however, we find that of the four "fatal complications of intramuscular and intra-articular injections" reported, only one fatality relates to an i.m. injection of steroid and it is unclear for which disease and under what conditions the patient received it.

In conclusion, we refute JB's alarmist claims, and instead we hope to encourage the development of more sound scientific evidence. We would like to invite all to join us in further studies of systemic steroids in severe hay fever.

References

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