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Authors' reply

Sir,

We thank the authors of the letter[1] for their interesting comments on our article.[2]

We developed this study to evaluate serum levels of some mediators involved in the innate and adaptative immune response of leprosy patients with erythema nodosum leprosum, since this reaction leads to severe peripheral nerve damage and physical incapacity as well as pain and malaise that deprive patients from social and economic interactions. Thus, the identification of possible serum immunomarkers for erythema nodosum leprosum could open new strategies for treatment and prevention, avoiding or reducing the nerve damage that impairs severely the quality of life of leprosy patients.

In our study, of special interest was the observation of the high serum levels of interleukin 6 (IL-6) at M0 (at the beginning of reaction) compared with M1 (one month later) and with untreated multibacillary leprosy patients without erythema nodosum leprosum (control with leprosy: CTRL), similar to the studies reported in the literature.[3-7] In addition, we observed higher serum levels of IL-6 in patients with severe erythema nodosum leprosum than in those with moderate or mild reaction. Considering that the IL-6 levels decreased after the remission of the reaction of erythema nodosum leprosum, we suggest that this cytokine has a role in erythema nodosum leprosum episodes and could be used as a marker for erythema nodosum leprosum in multibacillary leprosy patients.

We agree with the authors regarding the importance of evaluating the serum levels of IL-6 in patients with type I reaction together with erythema nodosum leprosum patients, as realised by Sousa *et al*.[6] and Saini *et al*.[8] In fact, we emphasise that our intention in our study was to evaluate and to follow-up erythema nodosum leprosum patients for two years after the initial erythema nodosum leprosum reaction. In this regard, the follow-up of 13 erythema nodosum leprosum patients showed that 11 had new episodes of erythema nodosum leprosum, reinforcing the importance of identifying biomarkers that may indicate early development of reaction.

Another important point to consider is the use of IL-6 as prognostic marker to erythema nodosum leprosum. For this purpose, it is necessary to follow the levels of this cytokine in a cohort of multibacillary leprosy patients and observe if patients that develop erythema nodosum leprosum present an increased level of IL-6 before the reaction. If a prognostic role of IL-6 is confirmed, it will enable us to take early prophylactic or therapeutics measures to prevent or minimise the damage due to the reaction.

Finally, we would like to thank the authors for the valuable comments and their kind attention to our article.

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Conflicts of interest
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