Reviewer's report

Title: Curcumin supplementation could improve diabetes-induced endothelial dysfunction associated with decreased vascular superoxide production and PKC inhibition

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Reviewer: Sorimuthu Subramanian

Reviewer's report:

The authors have studied the effect of curcumin supplementation in improving diabetes induced endothelial dysfunction. I have gone through the manuscript carefully and wish to state the following:

1. The pharmacological properties including antidiabetic and antioxidant potential of curcumin have already been reported by many investigators which include both invitro and invivo studies. Hence, the present study lacks novelty.

2. The authors have induced experimental diabetes in rats using STZ (55mg/kg b.w) and have initiated the treatment only after six weeks. STZ is known to bind specifically with beta cells of pancreas and cause irreversible damage to them. Hence, there is no possibility of insulin secretion in the diabetes induced rats. The authors have reported a moderate decrease in the levels of plasma glucose and a significant reduction in HbA1c. However there was no justification furnished. Further, the simultaneous evaluation of invitro antioxidant potential of curcumin is essential to substantiate the claim.

3. The values given in Fig6 do not match with the values given in the text.

In the light of the above it is submitted that the manuscript is NOT RECOMMENDED for publication and it lacks scientific novelty.

Level of interest: An article of insufficient interest to warrant publication in a scientific/medical journal

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests.