Reviewer’s report

Title: Depression, Smoking, Physical Inactivity and Season independently associated with Midnight Salivary Cortisol in Type 1 Diabetes

Version: 2 Date: 27 June 2014

Reviewer: Jessica Markowitz

Reviewer’s report:

Major Compulsory Revisions

June 27, 2014

Depression, smoking, physical inactivity and season independently associated with midnight salivary cortisol in type 1 diabetes

This is an interesting study which appears to be novel. I have a few concerns I would like the authors to address, listed below.

Abstract

• Is there research to back up the first sentence? It appears to me that in this manuscript, you are testing this idea and correlation does not equal causation. Perhaps be more tentative in that first statement, or provide evidence in the introduction that this is the case.

• In results section of abstract, clarify that older age was associated with high MSC.

Methods

• In the sentence discussing “somatic comorbidities” please check the parentheses in this sentence, as I think you are missing one – I do not think you mean to include social blindness in this category.

• What is social blindness? Please define.

Metabolic variables

• Please define WC at its first use.

Diabetes complications

• Is this section necessary?

Validation of the HADS-D

• Could some of the 9 patients be on antidepressants? Or was there no overlap and there were 14 patients with either self-reported depression or on antidepressants?

Discussion
• Page 13, line 262, “MSC was associated with self-reported depression in patients with type 1 diabetes, which indicates a disturbance of the circadian rhythm” – why does it indicate this? Can you please explain a bit more in the manuscript?

• Why do you think some of your findings differ from previous research? Please address this in this section.

• You theorize that salivary cortisol may be used in future research to evaluate if a person recovers from a depressive episode. Why would this be preferable to the person meeting with a doctor or therapist to assess this? What is the benefit? Also, I am not sure this section fits into the rest of the manuscript.

Conclusions

• “Routine systematic depression evaluation at diabetes control visits, and necessary treatment…would eventually bring down long term diabetes complications and the comorbidity associated increased mortality” I do not think you can conclude this.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests