Reviewer's report

Title: Effects of Hypericum Perforatum, in a rodent model of periodontitis.

Version: 1 Date: 21 October 2010

Reviewer: Takaaki T Tomofuji

Reviewer's report:

Abstract
-Background
Please delete the words “Since polyphenolic compounds have high antioxidant propriety,”.

-Results
The words “the recruitment of other inflammation” “production of a range of inflammatory mediators” “tissue damage” “apoptosis and disease” “potent anti-inflammatory effects” are too abstract. Please review the sentences.

Nitrotyrosine >> nitrotyrosine
Interleukin >> interleukin

-Conclusions
Hypericum >> Hypericum perforatum
injury, events associated >> injury associated

Introduction
Please give brief information and the related references from the literature, in the introduction section about the following topics.
Nitrotyrosine, iNOS, P-selectin, ICAM, IL-1, IkB-#, NF-kB p65, Bax, and Bcl-2
The reader sees it first in the Methods section.

page 3, line 6 from the bottom: In, recent years >> In recent years
page 4, line 1: antidepressant effect >> antidepressant effect.
page 4, line 5 from the bottom: model of periodontitis, >> model of periodontitis.
page 4, line 4 from the bottom: of action we >> of action, we
page 4, line 1 from the bottom: apoptosis >> apoptosis.

Results
Please write p values or mention (< p or >p) for the significant or nonsignificant differences.
Methods
page 5, line 11: Please mention the kind of laboratory food you used in the study.

page 5, lines 1-7 from the bottom: Was a ligature placed around the gingival margin of the mandibular first molars? In addition, there was no information about the control site (Figures show that the right side of the mandibular did not receive the ligature-induced periodontitis). Please clarify these points.

page 7, lines 1-13 from the bottom; and page 8, lines 1-9: There is no information about IL-1. Please add the explanation about IL-1.

Discussion
page 15, line 5: gingival >> gingiva

Materials. >> Material

Discussion
page 15, line 5: periodontal >> periodontal tissue

page 16, lines 3-4: Recent evidence suggests that… Please insert the reference.

page 16, line 7: process (18) >> process (18).

page 16, line 6: ligation >> ligation.

page 16, lines 1-4: Please delete these sentences.

page 17, line 7: nitrosative stress” >> nitrosative stress”.

page 17, lines 5-6: Please delete this sentence.

page 17, line 4: Apoptosis, or programmed cell death, is… Please insert the reference.

page 19, line 2: In conclusion this >> In conclusion, this

Figure 3: Ligature

Figure 3a1&b1: Please give explanation to the cross axle (Sham, Ligature, and Ligature+Hypericum?).

Figure 6a: Ligature

Figure 7a&b: Ligature

What is IPERICO?

Figure 7a1&b1: Please give explanation to the cross axle (Sham, Ligature, and Ligature+Hypericum?).

The ligature model has some limitations (For instance, the ligature model induces acute inflammation but not chronic inflammation such as human periodontitis). In
addition, although Hyperium perforatum has antibacterial effects (page 4, lines 1-3), this study did not examine the effects of this medicine on bacterial pathogens in the periodontium. Please describe these limitations in the Discussion section.

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

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests.