Author's response to reviews

Title: Tetanus developed after replantation of an amputated finger: a case report

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Author's response to reviews: see over
Thank you for consideration of our manuscript for publication in your journal. We have reviewed the above manuscript according to your reviewer’s comments.

**Reviewer #1 (Dr Hiroshi Yoshimoto)**

1: How much was the amount of the warm saline for washing? (Page4-80)
   
   We added 500ml.

2: How were the conditions of the wounds after first operation? Was there infectious signs?
   
   We have added this sentence: There was no infectious sign of his hand.

3: The “exposure of neurovascular bundle” is more matching than “exposure of nerves or blood vessels” as a key word. (Page3-43)
   
   Done

4: It seems to be more appropriate representation of “is necessary” from “may be essential”. (Page2-39, Page7-132)
   
   Done

**Reviewer #2 (Sadanori Akita)**

The prophylactic effects of tetanus toxoid and/or human anti-tetanus immunoglobulin (TIG) at the very beginning of the treatment are not clarified.

   We have clarified this. The following statements now appear in the abstract and discussion:

   The drugs should be administered just after replantation because the finger is amputated. The prophylaxis of toxoid and HIG should be invalid just after injury,
because the amputated finger was separated from the patient. If we had administered toxoid and HIG just after replantation, we could have prevented tetanus of this patient. Apparent clinical onset of tetanus is at 21 day after the injury and 6 days after the secondary flap surgery and this clinical time-course should be further discussed more in details, including local sings and manifestations of the middle fingers. How would the authors determine the “middle” finger the focal site of tetanus but ring finger?

We have demonstrated middle finger or ring finger and added this sentences in case presentation:

There was no infectious sign of his hand. The wound of ring finger healed completely 18 days after injury. The distal phalanx fracture of ring finger healed 6 weeks after injury.

Specific comments
In “Abstract”, “during inpatient treatment” should be corrected to “during hospitalization”.

Done

In “Introduction”, line 67, “after trauma of the hand” should be corrected to “after trauma of the fingers”.

Done

In “Case presentation”, line 74 and 75, “No tetanus toxoid was injected because there was no soil contamination”, the relevant treatment criteria in the authors’ institute should be inserted.

We have added this sentence in case presentation as reviewer indicates:

Our institute’s principal in trauma is that we inject tetanus toxoid and human anti-tetanus immunoglobulin (TIG) in case the wound is dirty.

In “Case presentation”, line 105, final outcome after healing at 8 weeks had better be included.

Done

In “Discussion”, line 114, did the authors measure this patient’s “basic immunity”? 
No, we measured IgG, IgM and so on. But we did not measure basic immunity of tetanus. So we have added one reference with this sentence:

Because of only about 10-year retention of the antibody titer, the positivity rate of the anti-tetanus antibody titer markedly decreases after 40 years of age in Japan[1].

In “Discussion”, line 118, to support this line, the condition of the ring finger and clinical course of the ring finger should be clarified in the “Case presentation” section.

Done

In “Discussion”, line 123 to 127, when prophylaxis of toxoid and human anti-tetanus immunoglobulin (TIG) are administered at the very first day, what clinical course is expected?

We have added this sentences in discussion:

The prophylaxis of toxoid and HIG should be invalid just after injury, because the amputated finger was separated from the patient. If we had administered toxoid and HIG just after replantation, we could have prevented tetanus of this patient.