Author's response to reviews

Title: Robotic device-assisted knee extension training during the early postoperative period after open wedge high tibial osteotomy: A case report

Authors:

Tomokazu Yoshioka (yoshioka@md.tsukuba.ac.jp)
Shigeki Kubota (s-kubota@md.tsukuba.ac.jp)
Hisashi Sugaya (h.sugaya@md.tsukuba.ac.jp)
Kojiro Hyodo (pjxgr965@tsukuba-seikei.jp)
Kaishi Ogawa (s0711680@yahoo.co.jp)
Akihiro Kanamori (kanamori@md.tsukuba.ac.jp)
Yu Taniguchi (cindy.forever911@gmail.com)
Yoshiyuki Sankai (sankai@golem.kz.tsukuba.ac.jp)
Masashi Yamazaki (masashiy@md.tsukuba.ac.jp)

Version: 1 Date: 25 May 2017

Author’s response to reviews:

May 25, 2017

Professor Itzhak Brook
Journal of Medical Case Reports

Dear Professor Brook:

We would like to thank you and the reviewer for the thoughtful comments and helpful suggestions on our manuscript “Robotic device-assisted knee extension training during the early postoperative period after open wedge high tibial osteotomy: A case report” (manuscript ID: _JMCR-D-17-00053).

We have carefully considered each of the comments, made every effort to address the concerns raised, and applied corresponding revisions to the manuscript. Additionally, we have carefully revised the manuscript to ensure that the text is optimally phrased and free from typographical and grammatical errors.
Our detailed, point-by-point responses to the reviewer comments are given below, whereas the corresponding revisions are highlighted in gray in the manuscript file. We believe that our manuscript has been considerably improved as a result of these revisions, and hope that our revised manuscript is acceptable for publication in the Journal of Medical Case Reports.

Finally, we would like to mention the fact that we have added Yu Taniguchi to the list of co-authors. All authors have approved the revised list of authors.

We would like to thank you once again for your consideration of our work and inviting us to submit the revised manuscript. We look forward to hearing from you.

Sincerely,

Tomokazu Yoshioka, MD, PhD.
Division of Regenerative Medicine for Musculoskeletal System
Faculty of Medicine, University of Tsukuba
1-1-1 Tennodai, Tsukuba, Ibaraki, 305-8575, JAPAN
Phone number: +81-298-53-3219
Fax number: +81-298-53-3162
Email address: yoshioka@md.tsukuba.ac.jp

Point-by-point responses to reviewer comments

Comment 1: Give complete past medical, social, family, and environmental history. What medication was the patient on?

Answer: We thank the reviewer for this pertinent comment and agree that past medical history and medication should be mentioned. The patient had been receiving oral candesartan and atorvastatin for hypertension and hyperlipidemia. There were no notable aspects to the social, family, or environmental history. The patient was a housewife. Regarding the present illness, pain in the left knee joint started one year and 4 months before admission, without any particular trigger, for which the referring physician provided conservative treatments such as oral administration of anti-inflammatory analgesics, rehabilitation including quadriceps muscle training, and guidance on the use of a cane to relieve weight bearing. Because this treatment was not successful, the patient was referred to our department for surgery. As the reviewer requested, we have included this information in the manuscript (see the "Case Presentation" section, on page 5, line 14).

Comment 2: Give detailed physical and neurological examination. What was the blood pressure on first admission?

Answer: Physical examination on admission revealed the patient was overweight (height, 157 cm; body weight, 62 kg; body mass index, 25.2 kg/m2). The patient reported pain in the medial
joint space of the knee when walking and when climbing or descending stairs. Blood pressure was 165/97 mmHg. No neurological abnormalities were noted. Per the reviewer’s suggestion, we have added this information to the revised manuscript (see the "Case Presentation" section, on page 6, line 2_), whereas information about knee joint pain, range of motion of the knee joint, and knee joint function had already been included in Table 1.

Comment 3: Give all results of laboratory findings (i.e. CBC, liver and renal functions), serology, microbiology etc) on first admission.

Answer: We thank the reviewer for this suggestion and have listed the laboratory findings at the time of the first admission, which did not indicate any abnormalities (see the revised “Case Presentation” section, on page 6, line 4).

Comment 4: Where there any complications throughout the process and surgeries?

Answer: The reviewer brings up an important point. Fortunately, there were no complications throughout the preparation, surgery, or rehabilitation process. Motivated by the reviewer’s comment, we have explicitly mentioned this fact in the revised manuscript (see the last sentence in the “Case Presentation” section, on page 9, line 20).

Comment 5: When (dates) were the surgeries performed?

Answer: The reviewer is right to bring up the issue of timing. The surgery (i.e., OWHTO) was performed on May 29th, 2015, while implant removal was performed at one year after surgery. While we agree that these dates represent relevant information, we cannot mention them within the content of our paper because of the provisions of the Personal Information Protection Law in Japan.

Comment 7: Give information about follow-up for at least 6 months.

Answer: We acknowledge the reviewer’s concern regarding the length of follow-up. In this study, the follow-up period was set to 3 months after surgery, which is why the data on EL, VAS, IKEMS, and active ROM listed in Table 1 were not evaluated at 6 months. While the patient was indeed evaluated at 6 months postoperatively, not all tests were performed. The findings of the evaluations conducted at 6 months were as follows: passive ROM, 0–135°; and JOA score, 90 points. Per the reviewer’s suggestion, these data have been added to the revised manuscript (see the end of the “Case Presentation” section, on page 9, line 19).

Comment 8: Describe what is unique in this case compared to what is available in the literature. The current discussion is too superficial in reviewing past literature.

Answer: We agree with the reviewer that the discussion in the original manuscript did not provide sufficient context regarding the relevance of the presented case in the context of current literature. As the reviewer requested, we have expanded the Discussion section and highlighted the findings of previous studies showing the efficacy of using the HAL-SJ compared to that of conventional rehabilitation after total knee replacement surgery. We also mentioned the main
differences between the surgical procedures used in OWHTO and those used in total knee replacement surgery, and how such differences may affect the efficacy of HAL-SJ-based interventions (see the revised Discussion section, on page 11, line 17).