## Peer Review File

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## **Reviewer Comments**

Comment 1: The title is uncorrelated with the content of main text. As far as I know, inter-group comparison or time-depending comparison are required to investigate a new method in refining an operation. However, the device was only used for measuring the compartment pressure in this paper, while no treatment or auxiliary effect comparison exhibited. Thus, the title is improper to summarize the whole text.

## Reply 1: We have changed the title of the article as advised Changes in the text: Page1,Line3-5.

Comment 2:The aim of this study was to test correlation between femorotibial pressure and joint gap in osteoarthritis patients, and the background need to be revised accordingly.

Reply 2: We have modified the background as advised. Changes in the text: Page3,Line59-65.

Comment 3: Font needs to be unified in line 88 and 89.

Reply 3:We have modified the font as advised. Changes in the text: Page4,Line98-99.

Comment 4:Please highlight that the condition of patients underwent PS-TKA in Method part, and the strategy to select PS prosthesis instead of CR prosthesis also needs to be discussed.

Reply 4:PS-TKA has a wide range of indications, the aim of our study was to find out the correlation between femorotibial pressure and joint gap among osteoarthritis patients with varus deformity ,in order to reduce the confounding factors that may affect the experimental results, we only included the data of PS-TKA patients. For the CR-TKA patients, the preservation of PCL will definitely have an effect on tibiofemoral pressures, but our study did not include CR-TKA patients, we will study it in the future research.

Changes in the text: Page12,Line300-304.

Comment 5:In Figure 1, please provide a more complete and clear photo of the device. And it would be better to give a scheme figure to present the application procedure of the device.

Reply 5: We have modified Figure 1 as advised.

Changes in the text: Figure 1.

Comment 6:In Figure 4 and Figure 8, please alter Chinese characters into English.

Reply 6:We have modified Figure 4 and Figure 8 as advised.

Changes in the text: Figure 4 and Figure 8.

Comment 7:In Figure 5-7, I suggest to give p-value comparison in histograms.

Reply 7: We have modified Figure 5-7 as advised.

Changes in the text: Figure 5-7.