Letter to the Editor on “Outcomes of computer-assisted peri-acetabular osteotomy compared with conventional osteotomy in hip dysplasia”

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We read with great interest the article titled “Outcomes of computer-assisted peri-acetabular osteotomy compared with conventional osteotomy in hip dysplasia” by Imai et al. and would like to congratulate the authors for their study [1]. Although they have touched a highly pertinent topic in a scientific manner, the study has brought several questions to our minds that we would like to communicate with the authors.

1. A vertical axis-centre of the femoral head, anterior extremity of the acetabular roof (VCA) angle [2] is one of a reference of anterior coverage of the hip joint. In the study, the authors set the target zone of the VCA angle after eccentric rotational acetabular osteotomy (ERAO) for between 20 and 60°. However, the authors have previously reported that the VCA angle after ERAO $\geq 46^\circ$ is a probable risk factor for pincer femoroacetabular impingement (FAI) [3]. Why didn't the authors set target zone of the VCA angle to avoid FAI?
2. The authors stated that the angle and direction of the osteotomy in conventional ERAO were determined by intra-operative X-ray. Certainly, the VCA angle was difficult to be evaluated by the false profiler view intra-operatively. However, the acetabular head index (AHI) was not difficult to be evaluated by intra-operative X-ray. Why did the results show that difference in the AHI between computer-assisted and conventional ERAO? Inaba et al. also compared computer-navigated and non-

navigated RAO, and reported that no significant difference was observed in the AHI after surgery between computer-navigated and non-navigated groups [4].

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

References

1. Imai H, Kamada T, Miyawaki J, Maruishi A, Mashima N, Miura H (2020) Outcomes of computer-assisted peri-acetabular osteotomy compared with conventional osteotomy in hip dysplasia. *Int Orthop*. <https://doi.org/10.1007/s00264-020-04578-x> [Epub ahead of print]
2. Lequesne M, de Seze (1961) False profile of the pelvis. A new radiographic incidence for the study of the hip. Its use in dysplasias and different coxopathies (in French). *Rev Rhum Mal Osteoartic*. 28: 643–652
3. Imai H, Kamada T, Takeba J, Shiraishi Y, Mashima N, Miura H (2014) Anterior coverage after eccentric rotational acetabular osteotomy for the treatment of developmental dysplasia of the hip. *J Orthop Sci*. 19:762–769
4. Inaba Y, Kobayashi N, Ike H, Kubota S, Saito T (2016) Computer-assisted rotational acetabular osteotomy for patients with acetabular dysplasia. *Clin Orthop Surg*. 8:99–105

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