Comment to the Article
„Classifications of Acetabular Defects: Do They Provide an Objective Evidence for Complexity of Revision Hip Joint Arthroplasty? (Critical Literature Review and Own Cases)"

O. Safir

Mount Sinai Hospital, Toronto, ON, Canada

This paper is a very well written literature review of commonly available classifications for acetabular defects encountered in acetabular revision arthroplasty surgery. The author provided a very thorough analysis of each available classification including Paprosky, Gross and AAOS. The comprehensive review included 956 publications available on PubMed. Details of the advantages and disadvantages of each system were discussed in the paper. The author concluded that the classification by Paprosky is currently the most commonly used. The classification by Dr. Gross provides a clear understanding of acetabular defects however requires intra operative observation which makes a retrospective X-ray analysis more difficult when using this classification. However the algorithm for surgical options based on Dr. Gross'

classification is easy to understand and comprehensive.

The author describes the original Paprosky article which demonstrated good correlation between pre-operative and intra-operative evaluation of acetabular defects. However other papers did not find similar results when using the Paprosky classification. Overall reliability of the Paprosky classification varied between 0.14 to 0.75. This radiographic classification is somewhat complex and can be difficult to interpret. The Gross classification depends on intra-operative coverage and stability of a trial cup in the anatomic position and what additional implants or bone grafts are necessary to achieve this.

The author discussed the importance of performing multiple X-ray views to improve the accuracy of estimating the anatomic location, and clinical implications of the bone defects secondary to osteolysis. New available technologies including 3D models based on CT scans could improve the evaluation of acetabular defects.

In the next part of the paper the author uses several examples of acetabular defects to demonstrate that it is not always easy to classify the defect using existing classification systems. Some overlap between defects

• *Comment on the Article*

Tikhilov R.M., Shubnyakov I.I., Denisov A.O. [Classifications of Acetabular Defects: Do They Provide an Objective Evidence for Complexity of Revision Hip Joint Arthroplasty? (Critical Literature Review and Own Cases)]. *Travmatologiya i ortopediya Rossii* [Traumatology and Orthopedics of Russia]. 2019;25(1):122-141. (In Russ.).
DOI: 10.21823/2311-2905-2019-25-1-122-141.

✉ *O. Safir*; e-mail: olegsafir@gmail.com

can cause challenges when classifying the acetabular defects. The author concludes that Paprosky classification is still the most commonly used. The author concluded that introduction of a new classification at this time is likely not required. New technologies like CT with high resolution can improve diagnosis and choose the proper tactics to decide the best surgical options for the patients.

For the surgeon dealing with difficult revision surgery, using a classification system helps to approach the surgical options in an orderly and disciplined manner.

INFORMATION ABOUT AUTHOR:

Oleg Safir — MD, Orthopedic Surgeon, Division of Orthopaedic Surgery, Mount Sinai Hospital, Toronto, ON, Canada