

Interventional radiology of the knee joint and surrounding tissue based on hybrid magnetic resonance imaging, computed tomography and ultrasound imaging

Dominik Sieroń^{1,2}

¹Affidea Sp. z o.o., Warsaw, Poland

²Division City and County Hospitals INSELGROUP University Institute of Diagnostic, Pediatric and Interventional Radiology, Tiefenau Hospital, Bern, Switzerland

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The knee is very often an area subjected to ultrasound-guided interventional procedures, computed tomography (CT) or magnetic resonance imaging (MRI). The presentation discussed the following interventional treatments: ultrasound, CT and MRI control specific to the knee joint area. The knee joint itself often sustains injury during sport activities and requires intervention image control. Injuries to the knee can include: soft tissue and structural damage, both to the anterior compartment and the femoro-tibial joint, or to the area around the joint itself.

The presentation details specific technical issues, such as diagnostic and therapeutic aspects related to soft tissue interventions around the iliotibial band, intra-articular fat bodies, tendinous structures, the patella, bursae, and menisci.

The most common knee joint interventional procedures include: aspiration, drug administration, per-

forming a biopsy, as well as radiofrequency ablation (RFA) therapy in selected cases.

For these cases diagnostic arthrography in the scope of CT and MRI, single- and double-contrast were used.

Additionally, the presentation discussed the latest available treatment methods using ablation and RFA cryoablation, which is the most common technique used in the treatment of lesions around the knee joint, as well as the periarticular area.

References

1. Kalke RJ, Di Primio GA, Schweitzer ME. MR and CT arthrography of the knee. *Semin Musculoskelet Radiol* 2012; 16: 57–68, DOI: 10.1055/s-0032-1304301.
2. Lalam RK, Winn N, Cassar-Pullicino VN. Interventional articular and para-articular knee procedures. *Br J Radiol* 2016; 89: 20150413, DOI: 10.1259/bjr.20150413.
3. Martel Villagrán J, Bueno Horcajadas Á, Agrela Rojas E. Musculoskeletal interventional radiology: ultrasound and CT. *Radio-logia* 2016; 58 Suppl 2: 45–57, DOI: 10.1016/j.rx.2016.03.005.