

## Allografting of acetabular defects as an alternative method in hip revision arthroplasties

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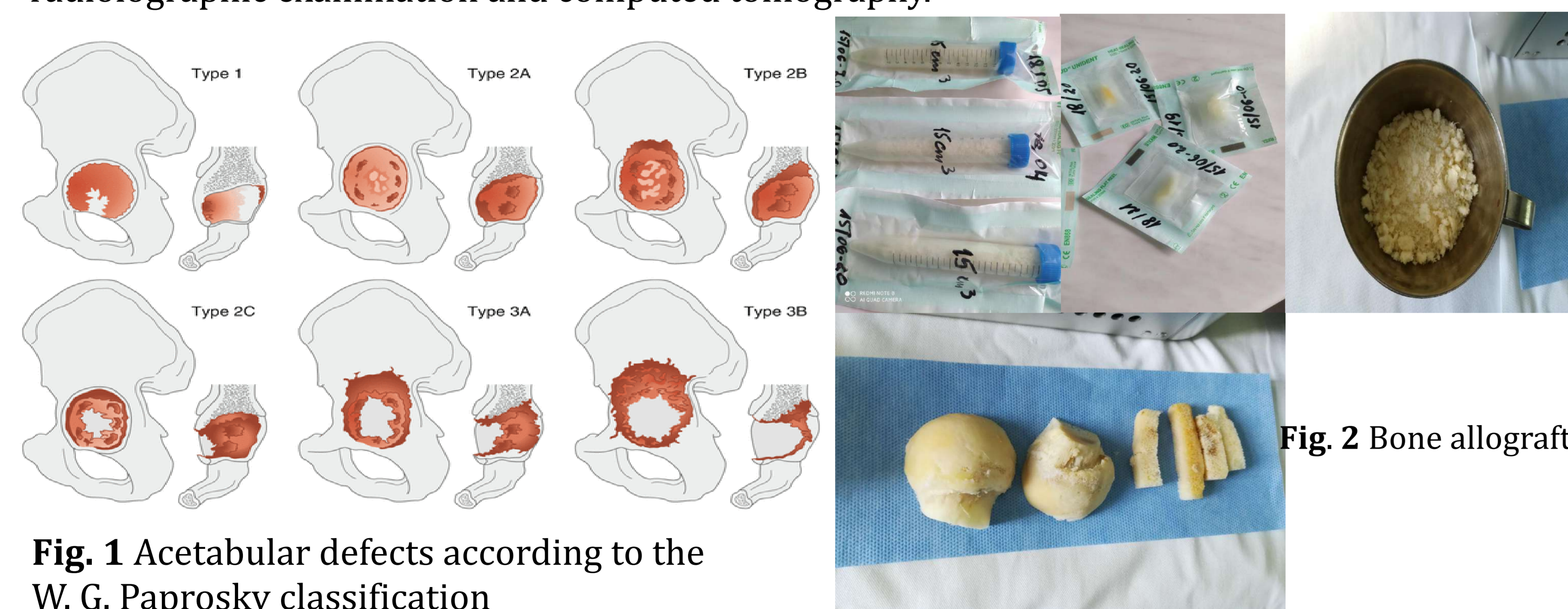
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**Introduction.** Meta-analysis of studies shows that approximately 1/3 of patients with instability of acetabular components after primary hip arthroplasty have huge acetabular defects. The prevalence of hip revision arthroplasty is 7-18%.

**Keywords:** revision arthroplasties, bone allograft, acetabular defect.

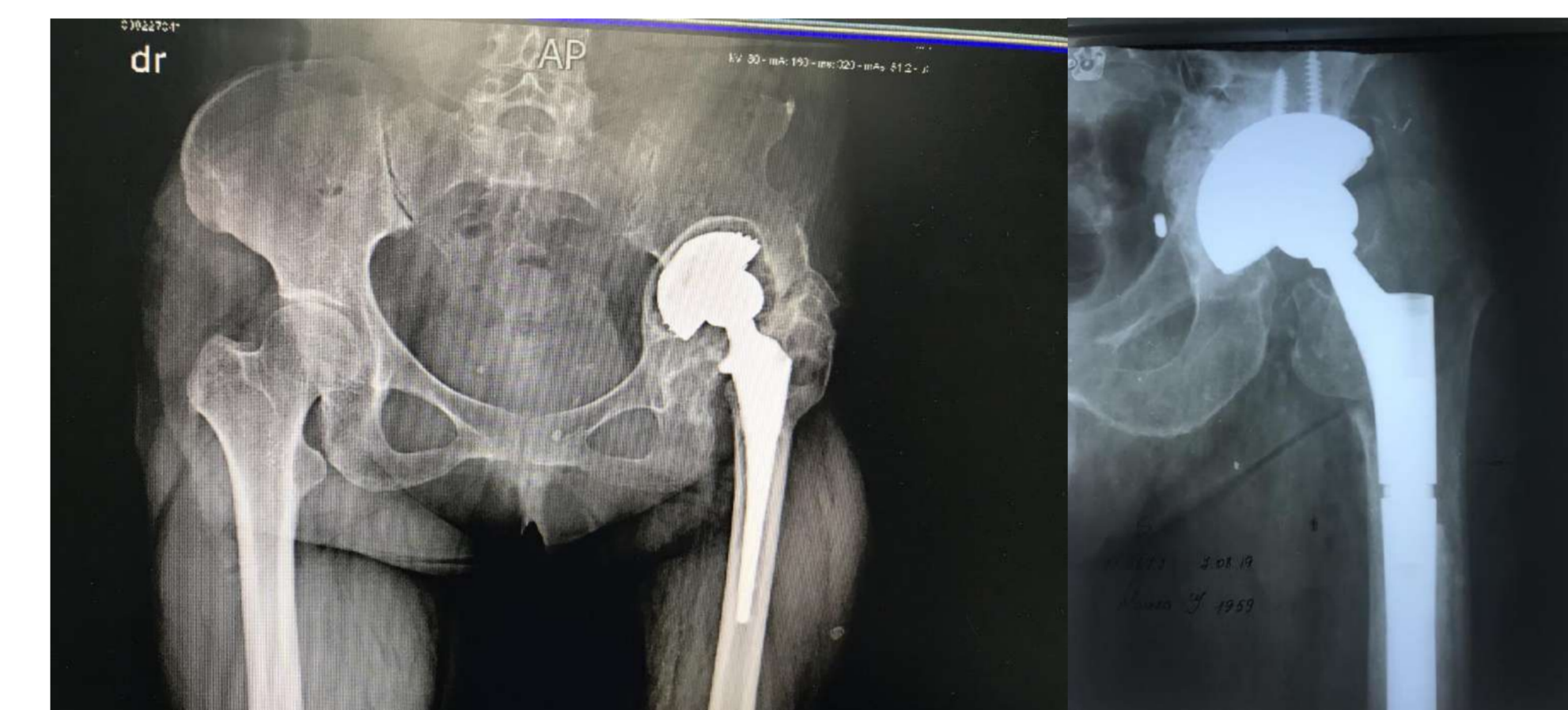
**Purpose.** To determine the possibilities and effectiveness of restoring acetabular bone defects using allogeneic bone material in hip revision arthroplasty

**Material and methods.** A descriptive study was performed in the period 2017-2020 on a group of 72 patients (79 hips) admitted to Department no. 8 within the Clinical hospital of Traumatology and Orthopedics, Chisinau, Republic of Moldova. Patients underwent radiographic examination and computed tomography.

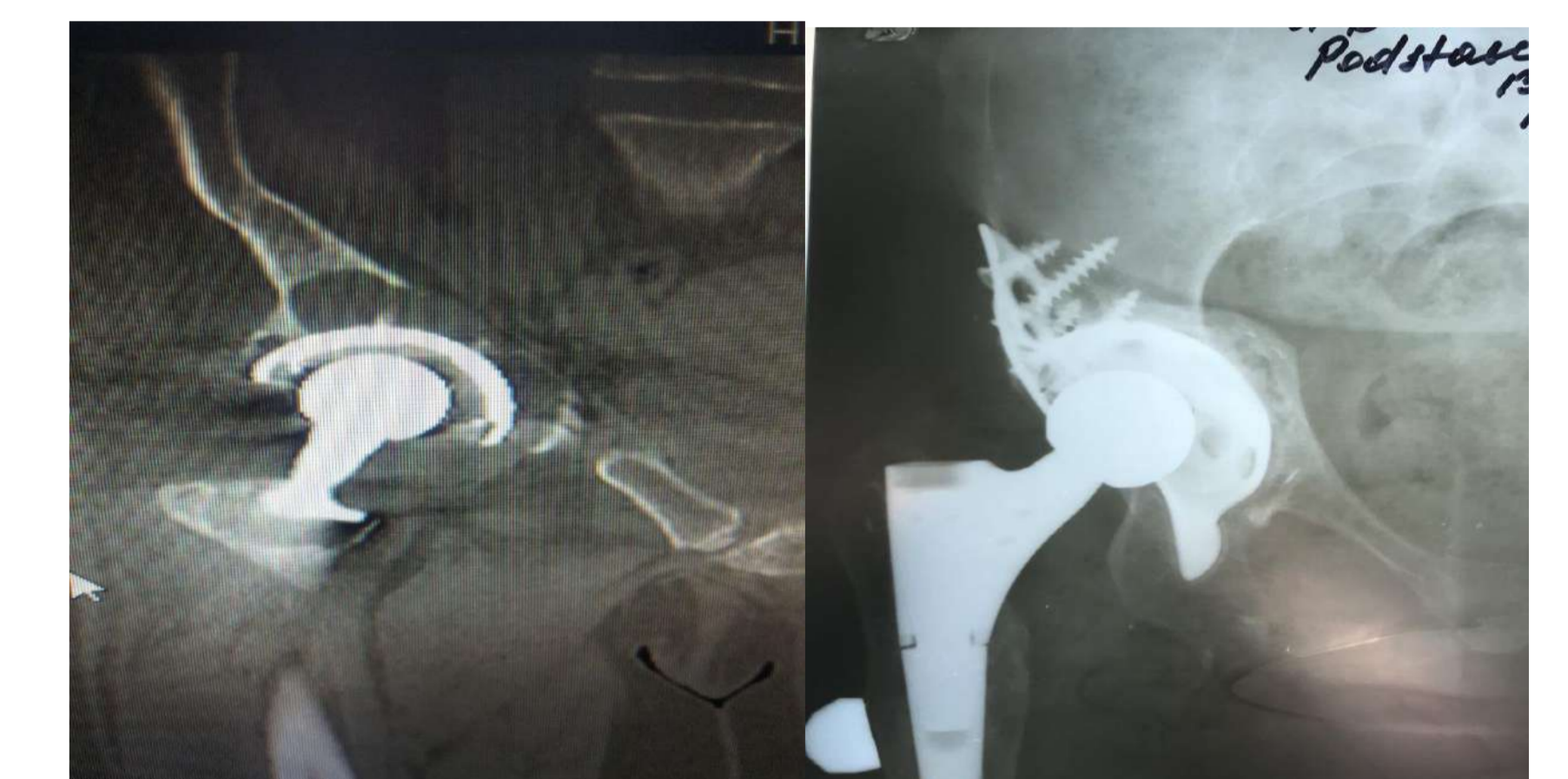


**Fig. 1** Acetabular defects according to the W. G. Paprosky classification

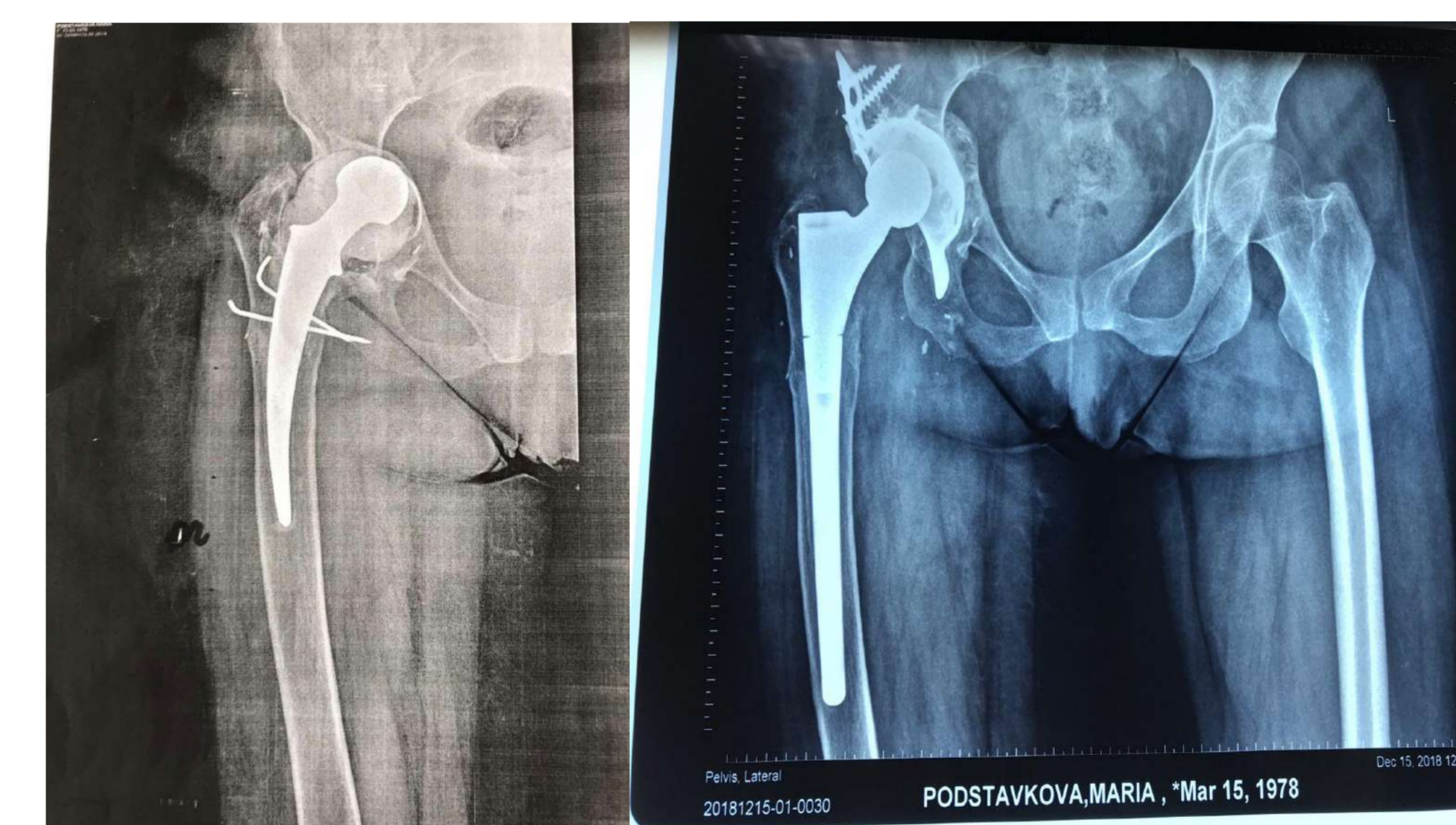
**Results.** Acetabular defects were distributed according to the W. G. Paprosky classification (fig. 1). Depending on the degree of defect, the patients were distributed as follows: type 1 - 15 (18,9%), type 2 - 41 (51,8%) and type 3 - 23 (29,1%). It should be noted that according to the Paprosky classification, good results were obtained in the treatment with allografts in all the types, notwithstanding the more advanced defects in the type 2 and 3.



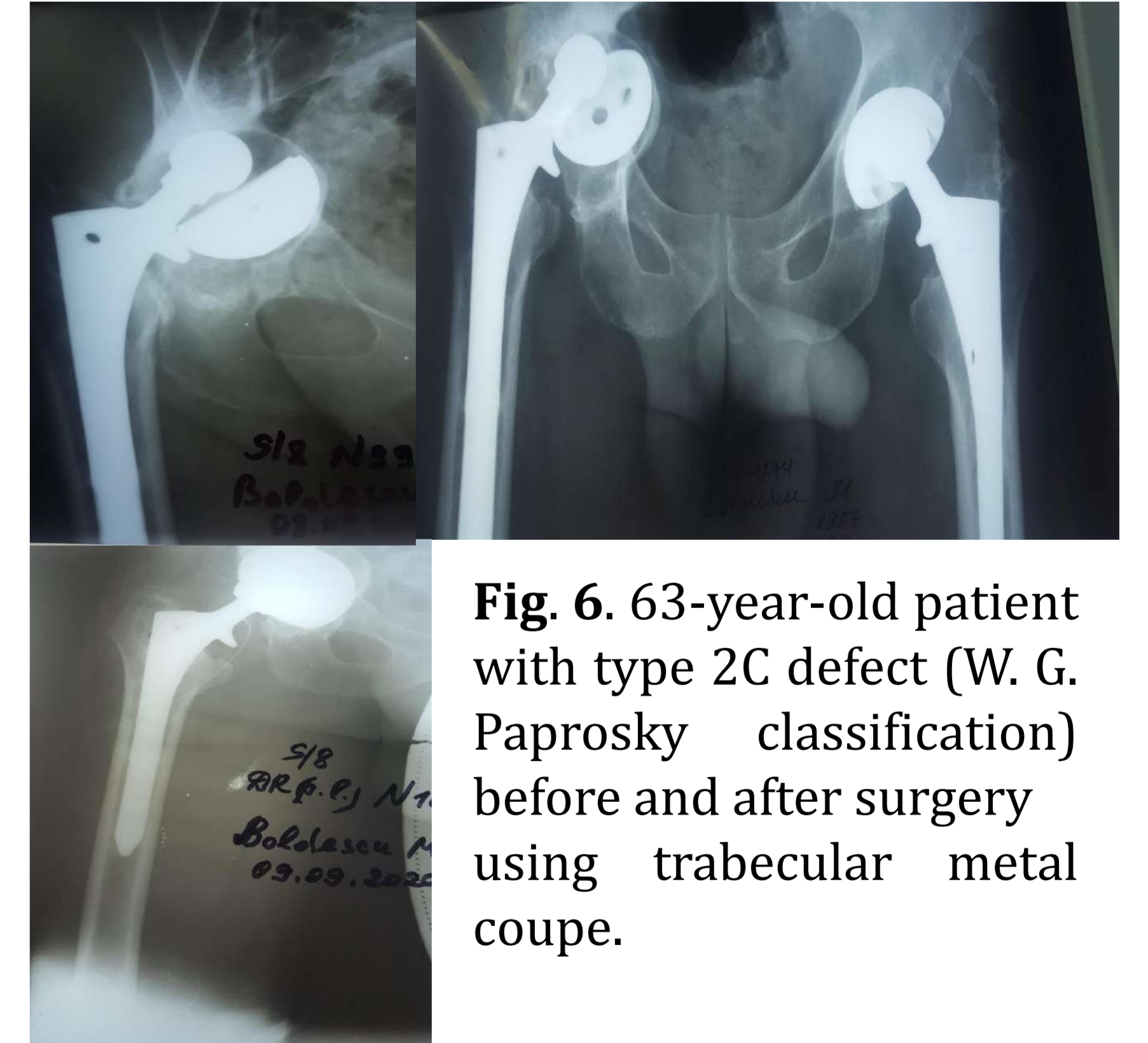
**Fig. 3.** 68-year-old patient with type 2B defect (W. G. Paprosky classification) before and after surgery using trabecular metal coupe.



**Fig. 4.** 52-year-old patient with type 3A defect (W. G. Paprosky classification) before and after surgery using Burch-Schneider Reinforcement Cage.



**Fig. 5.** 67-year-old patient with type 2C defect (W. G. Paprosky classification) before and after surgery using Burch-Schneider Reinforcement Cage.



**Fig. 6.** 63-year-old patient with type 2C defect (W. G. Paprosky classification) before and after surgery using trabecular metal coupe.

**Conclusions.** Our patients showed good allogeneic bone ingrowth in relation to the acetabular bed and good bone restructuring and incorporation in relation to the implant. Neither mechanical failure of implants nor graft rejection were recorded. These results suggest that despite the degree of acetabular bone deficit, we can obtain good results, even in type 3, having at hand the technical possibility of bone plasty and the revision implant.