

SAFETY OF KIDNEY (INCLUDING PROTOCOL KIDNEY TRANSPLANT) BIOPSIES IN UNIVERSITY HOSPITAL MERKUR



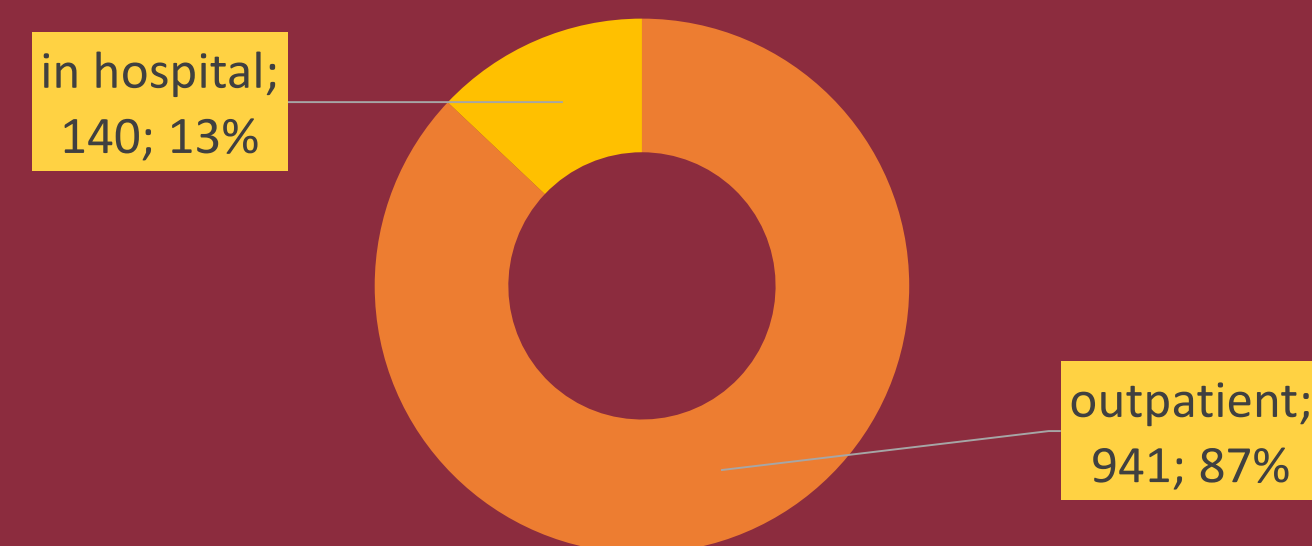
Zibar Lada (1,2), Šimunov Bojana (1,3), Čingel Branislav (1), Škegro Dinko (4), Margeta Ivan (1), Mihaela Gunjača (5), Knotek Mladen (6), Laganović Mario (1,3)

1 University Hospital Center Merkur, Zagreb, Croatia, 2 Faculty of Medicine, University Josip Juraj Strossmayer in Osijek, Osijek, Croatia, 3 School of Medicine, University of Zagreb, Zagreb, Croatia, 4 Poliklinika Nola, Zagreb, Croatia, 5 Derriford University Hospitals Plymouth, United Kingdom, 6 Departement of Medicine, Tree Top Hospital, Maldivi

Background

Kidney biopsy (BX) is frequently performed in our center as an outpatient procedure.

Outpatient vs in hospital kidney biopsies
2018 - 2022
in University Hospital Center Merkur, Zagreb, Croatia
N = 1081



Aim

To evaluate the safety of biopsy in the outpatient setting.

Patients and methods

We analyzed kidney biopsies performed from 2018 to 2022 (5 years). 941 of 1081 biopsies (87 %) were performed in the outpatient setting. Other patients underwent BX during the ongoing hospitalization or were hospitalized for the BX, as assessed as at higher risk for complication by nephrologist. All were performed under ultrasound guidance using an 18G needle, with freehand technique. In all patients with estimated glomerular filtration rate < 30 mL/min/1.73m² body surface area desmopressin was administered. Patients were observed after the BX and complete blood count test and urinalysis were done after 4 h. Data on complications of BX - drop in serum hemoglobin concentration, bleeding, hospitalization, transfusion, surgery or radiological intervention, death (the last three being the major) were analyzed.

Results

The presented results included outpatient BXs only. Each BX was performed by one of 8 nephrologists (the report authors). Protocol kidney transplant biopsies were done at 2, 6 or 12 months after transplantation.

Outpatient biopsies (n = 941), patients' characteristics and outcomes

Patients age (years)	median 53 (min. 15 – max. 86)
Patients gender (male)	609 (64.7 %)
Transplant kidney	754 (80.1 %)
Received desmopressin for bleeding prevention	100 (10.6 %)
Protocol transplant kidney biopsy	518 (55.1 %)
Complications	19 (2 %)
Macrohematuria	16 (1.7 %)
Perirenal hematoma	2 (%)
Need for hospitalization	11 (1.2 %)
Drop in hemoglobin	2 (%)
Need for blood transfusion	0 (0 %)
Need for surgery	0 (0 %)
Need for radiologic intervention	0 (0 %)
Death	0 (0 %)

Conclusion Kidney BX performed in outpatient setting in our center in selected patients was only rarely associated with complications, never a major one, and is generally a safe procedure.