Case report: Acute kidney injury due to hypercalcemia

A 46-year-old woman was hospitalized in June 2023 from the emergency room with a stone in her right kidney, a severe stage of kidney insufficiency(creatinine 327 μmol/L, eGFR 14 mL/min/1,73 m 2 ) and severe hypercalcemia (4,93 mmol/L). Due to abnormal parathyroid values of 283,9 pmol/L patient underwent parathyroid scintigraphy, that revealed an accumulation of media in the right lobe of the parathyroid gland. With suspected primary hyperparathyroidism, the patient underwent surgical lobectomy of parathyroid gland. Despite the conservative treatment and surgery high levels of PTH and calcium persisted. Parathyroid gland histology results found parathyroid gland carcinoma. The patient underwent whole-body scintigraphy and 18F-choline PET/CT with no new lesions found. The bone lesions, which were previously described as “brown tumor” have been marked as increased in diameter. The lesion in the right iliac crest was punctured under ultrasound guidance, histology revealed metastasis of parathyroid carcinoma. Palliative radiotherapy was determined by mutlidistiplinary oncology team, but sadly patient status got worse during a few weeks and patient had a fatal outcome due to sepsis.

Conclusion: Differentiation of „brown tumor” and metastasis in case of primary hyperparathyroidism may be complicated. In radiological findings both lesions look similar. In that particular case it was technically possible to provide biopsy of bone lesions, because of its localization.