Controversial case in endourology. Retained foreign body after PCNL: case report

Introduction: the treatment of nephrolithiasis has undergone significant advantages with development endoscopic technology. The goal of all surgical stone procedures is to maximize stone removal while minimizing morbidity to the patient. Urologists have a big armamentarium that it permit them to work in a optimal condition, but any instrument employed in endourology surgery could break and remain in the collecting system. We describe a case of a guidewire broken inside the renal parenchyma during PCNL.

Methods: A 15 year-old female patient with a past medical history of nephrolithiasis. She had stones in the upper calix, lower calix and in the pelvis of the left kidney, obstructive (fig 1). We performed PCNL in prone position with general anaesthesia.

Results: Based on ultrasound and fluoroscopy imaging, we performed the puncture in the upper calix and 0,031 floppy tipped guidewire was passed through the needle into the collecting system, but we withdrew the guidewire from needle, because we were not satisfied ourselves of this puncture. During this maneuver the guidewire was broken into the parenchyma. We made a new puncture in the upper calix. The procedure was completed but was impossible to find the guidewire because was fully trapped inside the parenchyma. The postoperative care uneventful. The patient was discharged completely stone-free, but with the piece of the guidewire(fig 2). Now we make close follow-up with KUB, US, urine analysis.

Conclusions: when pieces of instruments, used in percutaneous procedure, can break off in the parenchyma kidney, it’s very difficult to retrieve the lost material. The management of this case is very hard. The retained foreign bodies are a dilemma for patient and practitioner, because could present as a nidus for infection or stone formation or mimic a renal neoplasm.