

**PP17****Biochemical analysis of kidney stones treated with percutaneous nephrolithotomy in Turkey**F. Ateş<sup>1</sup>, E. Malkoç<sup>1</sup>, H. Soydan<sup>1</sup>, Ö. Özcan<sup>2</sup>, B. Bahar<sup>2</sup>, F. Dursun<sup>1</sup><sup>1</sup> Department of Urology, GATA Haydarpaşa Training Hospital, Istanbul, Turkey<sup>2</sup> Department of Biochemistry, GATA Haydarpaşa Training Hospital, Istanbul, Turkey**Objective:** To examine the biochemical results of stones obtained by Percutaneous Nephrolithotomy.**Materials and Methods:** The stones of patients who underwent percutaneous nephrolithotomy in our clinic were sent to biochemistry laboratory. The stones were analyzed qualitatively by chemical methods. The results were grouped according to stone contents (calcium, oxalate, phosphate, uric acid, cystine, ammonium and carbonate) and according to its mineral mixture as one, two, three or four minerals.**Results:** Stone analysis of 51 patients were attained among 164 percutaneous nephrolithotomy cases. According to stone contents, one mineral containing: 8 (calcium, cysteine, uric acid, phosphate, carbonate), two mineral containing: 18 (Ca-Ox, Ca-P, Ca-ammonium, cysteine, -Ox), three mineral containing: 18 (Ca-Ox-P, Ca-cysteine-P, Ca-P-uric acid, Ca-Ox-ammonium, cysteine-P-ammonium, P-ammonium-Ox, Ca-ammonium-uric acid, Ca-P-bicarbonate), four mineral containing: 7 (Ca-Ox-P-uric acid, Ca-Ox-ammonium-uric acid, Ca-P-ammonium-uric acid, Ca-P-ammonium-carbonate, Ca-Ox-P-ammonium uric acid-Ox-P-carbonate) cases were determined. Stones not containing calcium were detected as 11.**Conclusion:** Approximately 80% of stones that need to be treated with percutaneous nephrolithotomy were containing calcium. Only 15.7% of cases have 1 mineral, 35.2% of cases have 2 and 49% contain at least 3 minerals. Uric acid (1/8) and cystine (1/4) stones are rarely seen alone. The most common types of stones are calcium (40/51), phosphate (27/51) and oxalate (25/51) containing stones. As a result, renal stones obtained by percutaneous nephrolithotomy were containing similar mineral profiles compared to the others.