

was mentioned in 197 patients (distal ureter – 112, 57%; mid ureter – 36, 13% and proximal ureter – 59, 30%). The stone free rate was 86% (169/197 patients). Post procedure stent was inserted in 177 patients. Thirty-three (12%) had complications with majority being UTIs (n=11) and ureteric perforation (n=8). Other urinary complications (n=9) included dysuria, stent irritation, pain, sepsis and stent migration whilst obstetric complications (n=5) included premature uterine contractions and premature delivery.

**Conclusions:** Stone treatment using ureteroscopic techniques in pregnancy can achieve a high success rate with a small but not insignificant risk of complication.

#### E157

##### Urolithiasis in patients with neobladder

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**Introduction & Objectives:** To evaluate the frequency of stone formation in patients with neobladders after urinary diversion.

**Material & Methods:** Between May 1995 and March 2013, in our department 348 consecutive patients underwent radical cystectomy. There were 281 (80.7%) men and 67 (19.3%) women and their ages ranged from 22 to 82 years. Types of urinary derivation included: Orthotopic gastrocystoplasty in 22 (6.3%) patients, orthotopic ileal neobladder in 220 (63.2%), sigmoid orthotopic neobladder in 22 (6.3%), bilateral ureterosigmoidostomy in 40 (11.5%), heterotopic continent urinary diversions in 8 (2.3%) and ureterocutaneostomy in 36 (10.3%) patients. We always used Vycryl 3/0 for formation of urinary neobladder and did not use nonabsorbable staples. The clinical assessment involved cystoscopic findings, ultrasound investigations and imaging by CT and/or MRI. Mean stone size was 3.3 cm (range 3.0–4.2 cm). All stones had density more than 1050 HU.

**Results:** Neobladder stones were diagnosed in 5 (1.9%) of 264 patients who underwent radical cystectomy with orthotopic neobladder. All patients underwent orthotopic ileal bladder substitution as a method of urinary diversion. All patients had large stones with high density. Because of neobladder, stones were removed only openly. No complications occurred during or within postoperative period.

**Conclusions:** The use of absorbable suture materials for the formation of orthotopic neobladder significantly reduces the likelihood of stone formation in the postoperative period.

#### E158

##### Urinary stone composition analysis – five-year experience of a major Portuguese urological center

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**Introduction & Objectives:** Assessment of stone composition can be a helpful adjunct to a metabolic evaluation of patients with stone disease. There is important information from such investigation that can direct metabolic evaluation and aid with preventive therapy. Stone composition can also determine the recurrence risk status of stone formers. This retrospective descriptive study aimed to evaluate urinary stone composition analysis at our institution during a five years period of time.

**Material & Methods:** Stone analysis reports of all patients submitted to urinary stone treatment procedures over a five year period at our institution – Centro Hospitalar Lisboa Norte – were analyzed (from April 2008 to March 2013). The identified patients were screened for age, gender, stone composition and number of substance mixture.

**Results:** From a total 537 stone analysis reports, 35 were excluded for insufficient stone material for a valid analysis.

From 502 valid reports, 60% (n=301) were from male patients and 40% (n=201) were from female patients. Mean patient age was 51.7 (ranging from 18 to 83 years old). A total of 7 different mineral components were identified. 96.0% (n=482) of all the stones had Calcium Oxalate (Whewellite/Wheddellite), 60.8% (n=305) had Calcium Phosphate (Apatite/Hydroxylapatite), 23.9% (n=120) had Uric Acid (Uricite), 20.1% (n=101) had Magnesium Ammonium Phosphate (Struvite), 4.6% (n=23) had Ammonium Urate, 3.8% (n=19) had Calcium Carbonate (Aragonite) and 1.8% (n=9) had Cystine. Most of the stones had 2 (62.4%), 3 (21.5%) or 4 (2.0%) mineral components. Only 14.1% (n=71) were chemically homogeneous. Calcium Oxalate and Calcium Phosphate were highly prevalent and equally distributed in both genders. Uric Acid (30.9% vs 13.4%) and Ammonium Urate (6.3% vs 2.0%) were more prevalent in male patients. In female patients, Magnesium Ammonium Phosphate (29.9% vs 13.6%), Calcium Carbonate (5.5% vs 2.7%) and Cystine (3.0% vs 1.0%) were more prevalent.

**Conclusions:** Urinary calculosis typical of adult age and featuring mainly calcium oxalate and phosphate is currently more frequent in economically developed countries. Our analysis confirms this fact in our population. The prevalence of this type of stones varies on account of environmental factors, especially dietary intake and lifestyle, although they are less useful diagnostically as they occur in several pathological entities. Other mineral components have a different gender distribution and seem to be less frequent. Despite being less influenced by environmental conditions they can suggest different specific metabolic conditions. Mineral stone analysis is still an important tool in managing stone disease diagnosis, treatment and prevention.

#### E159

##### Urolithiasis in the XXI century: Bibliometric analysis of scientific publications in the last decade

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**Introduction & Objectives:** Urinary stone disease prevalence seems to be increasing. It is important for urologists to generate and use convincing evidence to provide best quality patient care. As the prevalence of lithiasis is growing and there has been an increase in technologies and minimally invasive techniques in all areas of surgery, it would be expected that the total number of publications about this disease should increase. We hypothesized if there is also an evident trend towards the increase of urolithiasis' related publications in urology journals. We evaluated the publications in five prestigious journals of urology journals over the last decade, in order to perform a bibliometric analysis of every article published related to urinary lithiasis.

**Material & Methods:** An electronic search was performed using PubMed and all issues BJU Int; Eur Urol; J Endourol; J Urol and Urology were consulted from 2001 to 2010. All articles related to renal and ureteral lithiasis were collected, recorded and analyzed.

**Results:** A total of 30,847 articles were published in these five prestigious journals (Table 1). The J Urol was the journal with the most number of articles published per year with an average of 1146 papers. J Endourol was the publication with less published articles in this decade, with an average of 231 papers per year. There was a total of 1.425 urolithiasis related papers in all journals. The J Endourol was the journal with the great number