

PT238

## Infective complications after nephrostomy tube replacement without use of antimicrobial prophylaxis: A prospective study

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**Introduction & Objectives:** Despite indications of international guidelines the use of antimicrobial prophylaxis (AMP) for routine nephrostomy catheter replacement is still quite common. So far in studies sustaining guidelines' indications, data about incidence of ineffective complications after nephrostomy replacement are poor. Aim of the study is to determine the frequency of febrile ineffective complications after office nephrostomy tube replacement in patients that did not receive AMP.

**Materials & Methods:** We prospectively enrolled all patients that underwent routine office nephrostomy tube replacement between July 2018 and September 2019 in our tertiary referral center. Each procedure was evaluated as an independent event. Clinical, microbiological and demographic data were collected. All patients that received AMP were excluded. 15-days after the nephrostomy tube replacement all patients received a phone interview aimed to investigate presence of fever, assumption of antimicrobial therapies and hospital admissions. Univariate and multivariate binomial logistic regression analysis was performed to assess the risk of infectious disease presented with temperature, flank pain and or hematuria that needed antibiotics administration.

**Results:** In the study period 145 routine nephrostomy tube replacements were performed. Before 19 procedures patients received AMP, these cases were excluded from the analysis. Mean patients' age was 78 (56-92). Charlson comorbidity index (CCI) score was  $\leq 2$  in 23,8% of patients, 3-4 in 23% and  $\geq 5$  in 53,2%. Mean glomerular filtration rate (CDK-EPI) was 36.8 ml/min (s.d. 18.6). In 34 cases urine culture was positive but no patients received AMP. After 17 (13.49%) procedures patients reported temperature. In this subgroup 7 patients received antibiotic therapy while in 10 cases fever resolved spontaneously. 3 patients needed hospitalization, 2 for nephrostomy malfunction and 1 for temperature with elevations of inflammatory markers. At multivariate analysis only CCI score  $\geq 5$  showed to be significantly associated ( $p=0.03$ ) with the risk of ineffective complications needing antibiotics administration.

**Conclusions:** Episodes of fever after nephrostomy tube replacement could occur after about 10% of procedures. In our series of elderly patients with high burden of comorbidities only 7 patients received an antibiotic therapy because of temperature or suspected ineffective complications related to the nephrostomy tube replacement, only one first aid readmission for ineffective complications was reported. Our prospective series strongly suggest that AMP can be safely omitted before routine office nephrostomy tube replacement.