

**P1284**

**Poster Session V**

**Infections in immunocompromised patients**

**INFECTIONS IN HOSPITALIZED LUNG CANCER PATIENTS**

**D. Kofteridis**<sup>1</sup>, A. Andrianaki<sup>1</sup>, A. Valachis<sup>1</sup>, K. Spetsotaki<sup>1</sup>, S. Maragou<sup>1</sup>, M. Zacharioudaki<sup>1</sup>, E. Padiaditis<sup>1</sup>, S. Maraki<sup>2</sup>, A. Christidou<sup>2</sup>, G. Samonis<sup>1</sup>

<sup>1</sup>Internal Medicine, University Hospital of Heraklion Crete, Heraklion, Greece ; <sup>2</sup>Clinical Microbiology, University Hospital of Heraklion Crete, Heraklion, Greece

**Objectives:** The aims of the study were to identify the type of infections occurring in lung cancer patients and investigate their epidemiology during a 13 year period.

**Methods:** A retrospective cohort study was conducted including patients cared for at the Department of Medical Oncology of the University Hospital of Heraklion, Crete, Greece. All patients with lung cancer who were hospitalized for any cause and developed infections during their hospital stay between January 2000 and January 2013 were included. Infections were studied during 3 different time periods (2000-2004 vs. 2005-2009 vs. 2010-2013), in relation to the different types of lung cancer and the different therapeutic antineoplastic strategies (platinum based vs. non-platinum based chemotherapy).

**Results:** Four hundred thirty seven infectious episodes occurred in 396 patients. Most patients suffered non-small cell (330 of 396; 83%), while 66 (17%) small cell lung cancer. The majority of infections involved the respiratory tract (70%), followed by those involving the urinary (9%), and the gastrointestinal tract (7%), while 7% had febrile neutropenia (FN). Microbiologically documented infections accounted for 74 (17%) of the infectious episodes. The most commonly isolated pathogen was *Escherichia coli* in 18 episodes, followed by *Enterococcus faecalis* in 8, *Pseudomonas aeruginosa* in 7 and *Klebsiella pneumoniae* in 7. The most common sites of bacterial isolation were urine in 27 (36.5%), blood in 24 (32%) and bronchoalveolar lavage in 9 (12%) patients. Fewer episodes of FN were observed over time. No differences were observed in the type and pattern of infection during the different study periods and in relation to the different types of lung cancer and treatment strategies. The all cause mortality rate reached 22% being comparable among the three different time periods. The infection-related mortality reached 14%.

**Conclusion:** The predominant site of infection in lung cancer patients is the respiratory tract. The pattern of infection remained the same during the three time periods for all treatment strategies and types of lung cancer. The decreased rate of FN during time is most probably due to the increased use of granulocyte colony stimulating factors prophylaxis.