INTRODUCTION

Lung cancer is the leading cause of mortality worldwide. New chemotherapy agents have provided some benefit. The management of stage IV non-small-cell lung cancer (NSCLC) has undergone a shift from supportive care to therapeutic care with the aid of chemotherapy and biologic agents. The purpose of this retrospective cohort study is to analyze the trends in management of metastatic NSCLC using the National Cancer Database (NCDB). In addition, we looked at variation in treatment patterns with regards to age and insurance type.

METHODS

Using the NCDB database 353,748 patients with metastatic NSCLC were identified from 2000 to 2008. Age, type of insurance and receipt of chemotherapy were the variables extracted and analyzed. A search for usage of chemotherapy from 2000 to 2008 was completed and total chemotherapy utilization was calculated per year to look at trends. Variation in treatment with regard to type of insurance was also analyzed. Total chemotherapy as 1st course treatment was again calculated and compared according to insurance type. SAS system was used to perform a Chi-Square analysis to evaluate the significance of differences in chemotherapy utilization with respect to type of insurance. Lastly, the odds ratios for three age intervals with the largest sample size (50-59; 60-69; 70-79) was examined to determine differences among utilization of chemotherapy for all stages of NSCLC.

RESULTS

The utilization of chemotherapy for metastatic NSCLC has increased from 45% in 2000 to 52% in 2008. VA patients were least likely to receive chemotherapy (35%), followed by Medicare (38 %) and Medicaid (48%) patients. Those with private insurance were most likely to receive chemotherapy (60%). The utilization of chemotherapy in different insurance types was adjusted for age and stage of cancer. For the three age intervals with the largest sample size (50-59; 60-69; 70-79), the Chi-Square analysis found that there were statistically significant differences between the four insurance categories and utilization of chemotherapy (P<.0001) for all stages of NSCLC.

DISCUSSION

The utilization of chemotherapy has been increasing over the last decade, possibly due to newer agents and better toxicity profiles of the new agents; however, this is not the standard of care for all insurance systems. Significant disparities exist in utilization of chemotherapy based on the payer systems that physicians practice in.

REFERENCES

Lilenbaum, Rogerio. Stage IV Non-Small Cell lung cancer. Uptodate.com; Retrieved on October 1, 2013