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Abstract

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From being a rare disease in the early 1900s, lung cancer is today the most common forms of cancer worldwide. This development is due to the gradual uptake of cigarette smoking in different populations and birth cohorts during the past 75 years. In spite of different modes of treatment, survival is still poor and surgery remains the prerequisite for cure.

National data from the Swedish Cancer Register for the 35-year period 1958-1994 were analysed to estimate the effects of birth cohort, year of diagnosis (period) and age at diagnosis on the time trends in lung cancers. Early mortality, complications, major morbidity during the first 30 days, quality of life and long term survival after lung cancer surgery were assessed to estimate the significance of pre-surgical and tumour-related risk factors. Also, effects of delay in diagnosis and treatment among patients with non-small cell lung cancer were examined.

The main results indicate that the overall age-adjusted incidence of lung cancer in Sweden has stabilised in men during the last two decades but has been increasing continuously in women. The fastest rate increase was noted among the youngest women and the incidence of adenocarcinoma is increasing in both sexes. Our results show low early mortality and morbidity after lung cancer surgery. Furthermore, quality of life was comparable with that of CABG patients postoperatively. However, patients with reduced lung capacity and those undergoing pneumonectomy should be treated with great care, as they run a considerable risk of major complications, impaired quality of life or death during the first 30 days postoperatively. Tumour stage (TNM) is the best prognostic indicator for long-term survival following radical surgery, underlying the importance of accurate surgical staging. Factors such as impaired preoperative lung function, older age, and major complications after surgery all negatively influence survival. Current smokers as a group run a significant risk of an adverse outcome (major complication or death), impaired mental health and shortened survival after lung cancer surgery. Waiting time for diagnosis and treatment of lung cancer was longer than recommended; especially among those surgically treated, but prolonged delay did not influence survival adversely.

Keywords: lung cancer, surgical treatment, early mortality, survival, smoking, quality of life, adenocarcinoma, incidence, Sweden

Gunnar Myrdal, Department of Surgical Sciences, Akademiska sjukhuset, Uppsala University, SE-75185 Uppsala, Sweden

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