Stage and survival of screen detected small cell cancer from the SUMMIT Study

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INTRODUCTION

Small cell lung cancer (SCLC) accounts for 15% of lung cancers with 30% of diagnoses made at limited stage and 70% at extensive stage disease. The median survival is 15 months for limited and 6.2 months for extensive stage SCLC [1]. Low dose Computed Tomography (LDCT) screening has not typically been thought to provide a survival benefit in SCLC. With NLST demonstrating no difference in stage or survival between screen-detected and interval small cell cancers, with 80% of screen-detected diagnosed at extensive stage and 86% of interval [2].

METHODS

The SUMMIT Study (NCT03934866) aims to assess implementation of LDCT screening for a high-risk population and validate a multi-cancer early detection blood test. Clinical outcomes were collected for participants referred to a lung cancer multi-disciplinary team (MDT) following positive screening CT as per the study protocol. Interval cancers and survival were obtained from National Cancer Registry Data. Descriptive statistics and assessment of survival through Kaplan-Meier curves are reported only for participants with a histological diagnosis of SCLC.

RESULTS

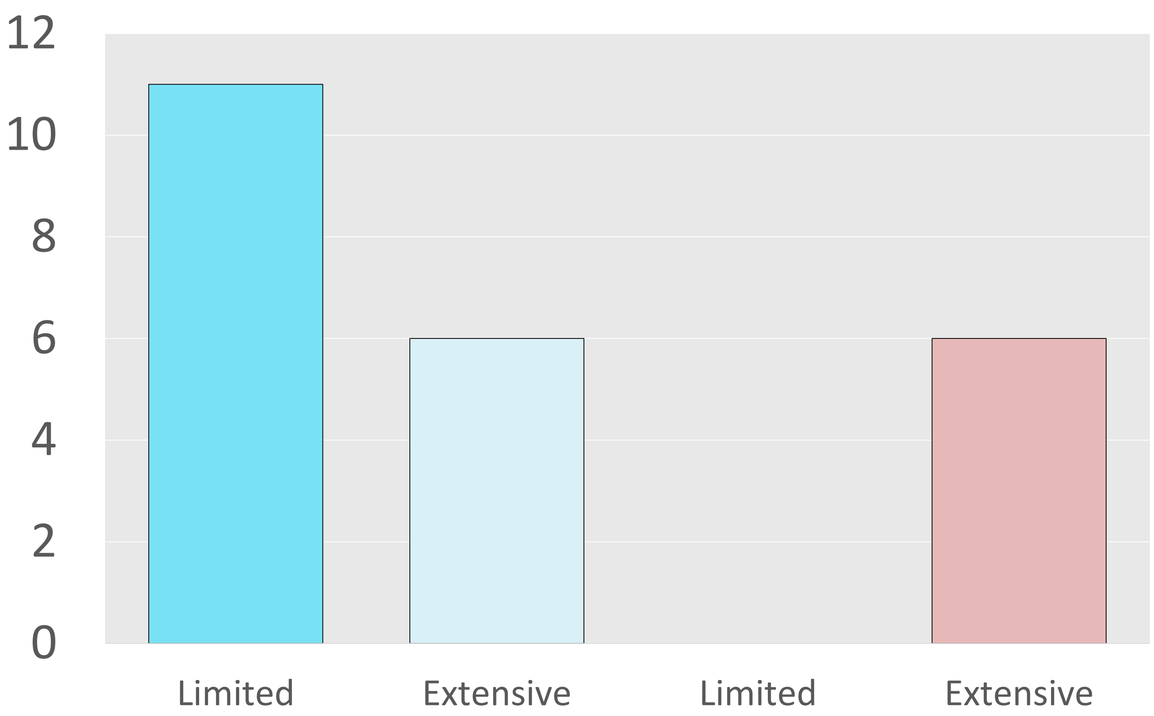

Figure 1 – Stage Distribution at diagnosis for Screen Detected (blue) Interval (red) Small Cell Lung Cancers

RESULTS

There were 17 screen-detected and 6 interval SCLCs. 65% (N=11) of screen-detected cancers had limited stage and 35% (N=6) extensive stage disease. All interval SCLC had extensive stage disease. Survival was higher among screen-detected SCLC compared to interval cancers (p=0.06). The 1- and 2-year survival rates were 71% and 54% for screen-detected cases, compared to 50% and 33% for interval cancers. Median survival for screen-detected cancers was 22 months for limited stage and 13 months for extensive stage.

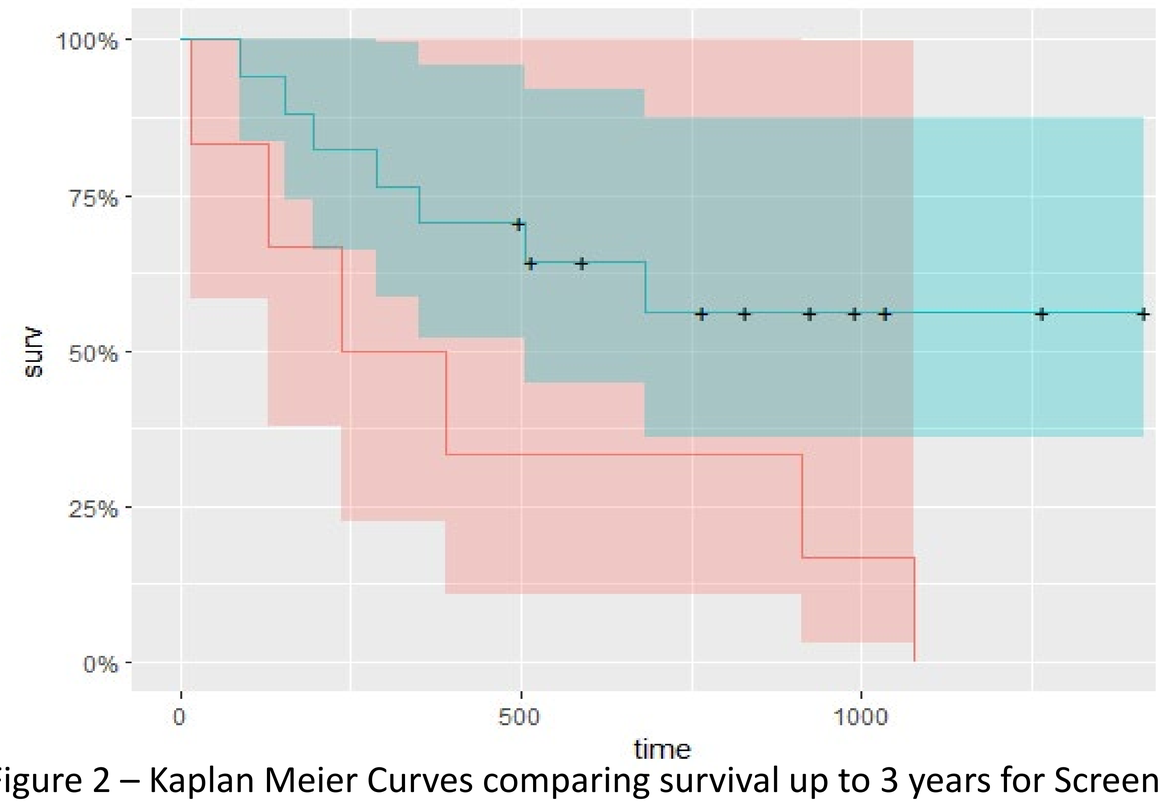

Figure 2 – Kaplan Meier Curves comparing survival up to 3 years for Screen Detected (blue) and Interval Cancers (red) with 95% confidence intervals.

DISCUSSION

A higher proportion of screen-detected SCLCs were diagnosed at an early stage and survival was longer compared to both general population estimates and interval cancers. This observation highlights the importance of acting on screen detected lesions suspicious for cancer in a timely manner. This could be due to lead time and length time bias. Alternatively, even where stage is the same, patients may be earlier in the disease course within the stage, or fitter and more suitable for treatment. Longer term outcomes and further research are required to explore causes and to determine whether any survival benefit is maintained at 5 years.

REFERENCES

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