tumors especially lung cancer which impact outcome. Post-treatment surveillance is therefore practiced on the premise that early detection and timely treatment of recurrences and second primary lung cancers (SPLC) could improve outcome.

Objectives: To determine the outcome of curatively treated HNC patients referred because of the suspicion of SPLC.

Methods: Between 1996 and 2005, patients with HNC referred for respiratory symptoms and/ or radiological abnormalities suspicious for lung cancer were evaluated with radiology and autofluorescence bronchoscopy. Data on patient demographics, smoking, pack years, cancer characteristics and outcome were collected and analyzed.

Results: Fifty-one patients (44 males) with curatively treated N0 HNC were evaluated. Median age was 70 years (range, 63-79), all were current or former smokers of 35 pack years (range, 30-45) and 25 had chronic obstructive lung disease. With a median follow up of 60 months, 8 patients were diagnosed with synchronous and 26 with metachronous SPLC. A total of 42 SPLC were diagnosed; 12 (29%) in the central airways and 30 (71%) parenchymal. Median time to metachronous SPLC was 24 months. Most of SPLC (38/42) were surgically resectable. Five occult cancers detected by AF bronchoscopy were successfully treated with endobronchial therapy. Lung cancer mortality was 24%. Survival of synchronous and metachronous SPLCs was significantly shorter (83 and 144 months) compared to those with HNC alone (240 months) (p=0.002).

Conclusion: SPLC has a negative impact on the survival of patients with HNC. Close surveillance with autofluorescence bronchoscopy and CT for SPLC combined with aggressive treatment of early stage lung cancer might be a strategy to improve outcome.

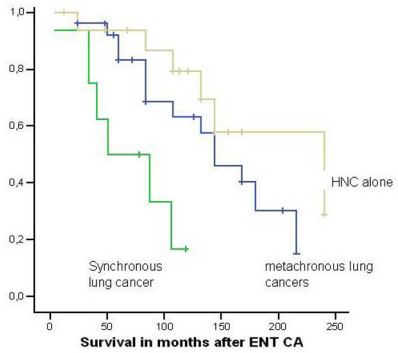

Fig 1: showing survival of HNC patients with synchronous, metachronous lung cancers and without, p=0.002

P1-191 Prevention and Early Detection Posters, Mon, Sept 3

Lung cancer screening experience at a community hospital in Baltimore, Maryland

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Background: Harbor Hospital is located in downtown Baltimore, serving largely blue-collar workers with very high smoking prevalence. Non-small cell lung cancer is the most common malignancy seen at this hospital, usually diagnosed at inoperable or metastatic stages. We pioneered low-cost and free chest CT scan program for this high risk population based on recent data indicating that yearly screening CT scans of chest can lead to early lung cancer diagnosis, and may reduce the lung cancer mortality.

Methods: Low cost screening chest CT scan was advertised through mass media and was offered to general population. We secured outside funding for approximately 300 free screening chest CT scans and these were offered through local primary care providers who were asked to identify individuals at high risk for lung cancer development based on their smoking and/or asbestos exposure history. Overall eligibility criteria for screening CT scan were age 55 and above, with at least 20 pack-year smoking history. All CT scans were done at Harbor Hospital Radiology Department, and results were classified as negative, indeterminate or suspicious. Indeterminate or suspicious results were reviewed and discussed at the multidisciplinary Lung Tumor conference and follow-up recommendation was issued according to the Early Lung Cancer Action Program (ELCAP) guidelines.

Results: A total of 492 patients underwent screening chest CT scans between 3/2003 and 2/2006. Median age of patients was 57 years (33-80), with 261(53%) women and 231(47%) men. The majority of screened population was Caucasian (68%), with 20% African Americans and small number of Asians (3%). More than 95% of the patients were current or ex-smokers, with median of 33-pack year smoking history (3-200). Among 459 smokers, 133 (29%) were former smokers with median of 10-year smoking cessation history (1mo to 40 years). Initial CT scan results were reported as normal in 258 (52%) and indeterminate in 234(48%). Non-small cell lung cancer was diagnosed in 8 patients (1.6%), who were referred to appropriate disciplines for staging and treatment. Three out of 8 patients were found to have stage I/II NSCLC and underwent surgical resection. Total of 10 out of 492 patients were diagnosed with cancer, two additional patients were incidentally found with other types of cancers, one laryngeal and another with pancreatic cancer.

Conclusion: Eight cases of NSCLC were diagnosed after screening 492 high-risk populations at a community hospital in downtown Baltimore. Among them, three patients (38%) were found to have early stage lung cancer and were offered curative resection. Following our experience, many other local community hospitals engaged in similar programs to provide low cost chest CT scans for early lung cancer detection. In our limited experience, screening chest CT scans yielded relatively more early stage lung cancers than our historical control. The usefulness of this approach remains to be established with ongoing large multicenter randomized trials sponsored by National Cancer Institute and ELCAP.

P1-192 Prevention and Early Detection Posters, Mon, Sept 3

Bronchial epithelial proliferation measured by Ki-67 is related to current smoking and sex but not to lung cancer or chronic obstructive pulmonary disease

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