Thoracic Surgeon Directed Paradigm For Lung Cancer Screening

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PURPOSE:

- Lung cancer screening programs have shown a dramatic reduction in lung cancer mortality
- Programs are mostly coordinated by PCPs and pulmonologists
- The unintended morbidity of lung cancer screening programs have been well documented by USPSTF
- Invasive diagnostic workups, overdiagnosis, and the frequency of surgical complications are often described
- We present the results of an ongoing thoracic surgeon directed lung cancer screening program

METHODS:

- The Advocate Lutheran General Center For Thoracic has conducted an ongoing lung cancer screening program from March 2013 to January 2020
- Eligibility criteria followed recommendations per the USPSTF guidelines
- All patients completed an initial lung cancer screening consultation with a thoracic surgeon in addition to a low-dose CT scan of the lungs
- Patients with LUNGRADS 3 or 4 lung nodules were presented at a weekly multidisciplinary conference attended by thoracic surgeons, medical oncologists, pulmonologists, radiologists, and pathologists
- Results of the scan and recommendations from the multidisciplinary conference were given to the patient directly by one of the thoracic surgeons

RESULTS:

- 552 patients were included in the final analysis
- In total, 36 (6.52%) patients were diagnosed with primary lung cancer
- 67% had early stage lung cancer (stage I/II), 19% had stage III, and 14% had stage IV
- Only 9 patients (1.63%) underwent an invasive biopsy or surgery for a benign lesion: 3 minimally invasive lobectomies, 4 VATs wedges, and 2 needle biopsies
- There were only 2 complications, an empyema occurring after surgery and a pulmonary embolus
- These results compare favorably to the 1.9% and 1.8% incidence of invasive procedures in the NLST and NELSON studies respectively

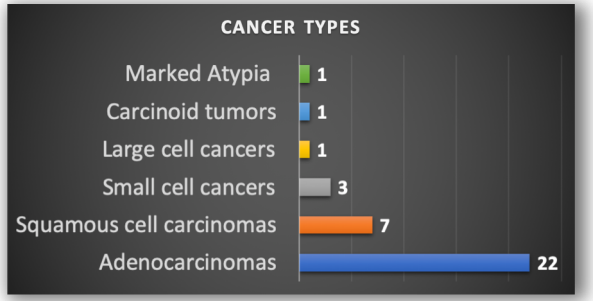


Image A

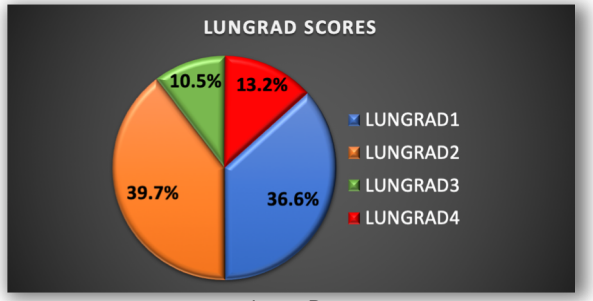
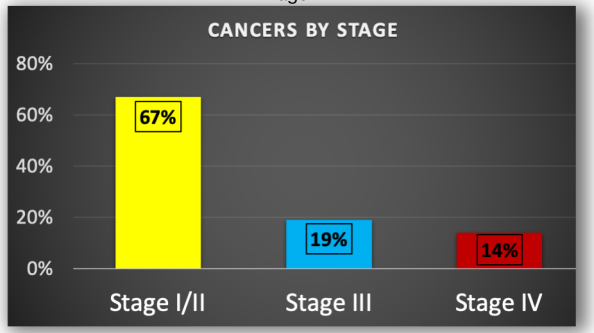


Image B



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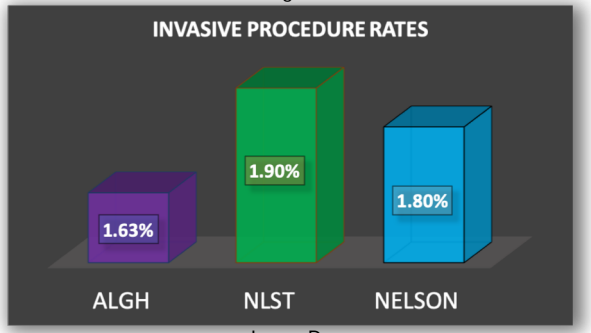

Image D

CONCLUSIONS:

- The results of this study confirm that a thoracic surgeon directed lung cancer screening program is effective at detecting early stage lung cancer
- Importantly, there does not appear to be an increased incidence of invasive procedures in a program directed by surgeons
- We believe our program is a paradigm for a non-primary care physician led lung cancer screening program

CLINICAL IMPLICATION:

- A thoracic surgeon directed lung cancer screening program can be effective without an increased risk of invasive procedures

REFERENCES:

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