

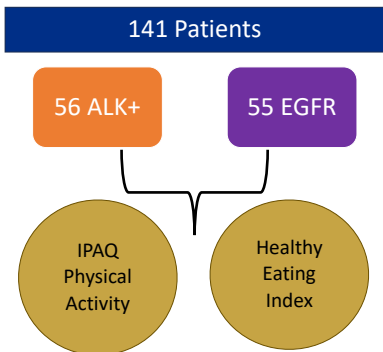
Role of Diet and Exercise in Young Lung Cancer Patients with Driver Mutations

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INTRODUCTION

- The Epidemiology of Young Lung Cancer Study (EoYLC) is an innovative, virtual case-case study that explores pre-diagnostic environmental and lifestyle as well as genetic factors in young persons with lung cancer (LC), and the largest epidemiology study in young lung cancer (YLC) patients to date.
- Preliminary EoYLC results showed that relative to ALK rearranged LC, EGFR patients were more likely to be female and older, had increased smoking exposure, lower body mass index (BMI), increased oral contraceptive and antihistamine use, and fewer allergies during adolescence.
- However, information on dietary and exercise patterns in YLC patients by driver mutations has been largely lacking, and is the focus of this report.

METHODS



- Research subjects enrolled in a distributed clinical trial model with remote consenting.
- 141 patients were enrolled. ALK and EGFR groups were independently analyzed for physical activity using the international physical activity questionnaire and diet using a food frequency questionnaire.

DISCUSSION AND CONCLUSION

Actionable Take Away Message

- ALK and EGFR patients have healthier diets and exercise more than the general U.S.A. population.
- Body mass index and physical activity scores varied in the ALK and EGFR populations

Future Direction for Research

- Because EGFR, ALK and other types of lung cancer are not driven by tobacco exposure, understanding the environmental and biological factors causing lung cancer in young people has value.
- Lung cancer risk factors are unique to each genomic subtype of lung cancer. Epidemiologic studies such as EoYLC will analyze each genomic group separately.

REFERENCES & ACKNOWLEDGEMENTS



Thank you to the patients who gave their valuable time to complete the survey data reported in this abstract.

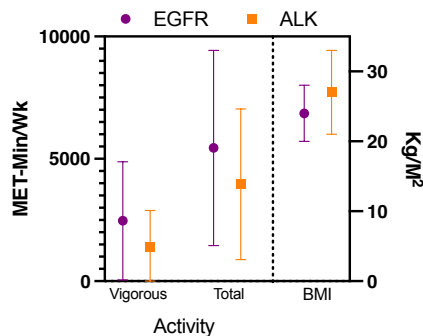
RESULTS

Subject Characteristics

	Demographics	
	Number	%
Patients	141	100
Male	21	15
Female	120	85
Race		
White	126	89
Asian	8	6
Other	7	5
Ethnicity		
Hispanic	9	6
Non-Hispanic	93	66
Unknown	39	28
ECOG		
0	75	53
1	59	42
2	4	3
3	3	2
Driver		
EGFR	55	39
ALK	56	40
Other	30	21



Physical Activity and Body Mass Index



Healthy Eating Index

■ YLC HEI score 66
 ■ USA HEI score 57

