# Nutrition and Physical Activity Post Cholangiocarcinoma Diagnosis

## INTRODUCTION

- Cholangiocarcinoma (CCA) is a rare and aggressive cancer with the majority of patients diagnosed at an advanced stage.
- Fatigue, the most common disease symptom and treatment side effects, could affect patients' physical activity levels, nutritional intake, and quality of life (QOL).
- Studies showed that maintaining adequate nutrition physical activities improve patients' QOL and increas survival in breast, prostate, and other cancers.
- To date, there is limited data regarding nutritional stat and physical activity in cholangiocarcinoma

#### METHODS

- During the 2022 CCA Foundation Annual Conference patient-reported symptoms survey was distributed vi Survey Monkey to all conference patients and caregivers.
- Caregivers submitted responses on their patients' behalf.
- We used the validated Physical Activity Scale for The Elderly (PASE) to assess the physical activities, alon with questions regarding nutritional status history pre and post-diagnosis.

| Parameters   | Variables       | Participants N=60 |
|--------------|-----------------|-------------------|
| Participants | Patients        | 52 (87%)          |
|              | Caregivers      | 8 (13%)           |
| Sex          | Male            | 13 (22%)          |
|              | Female          | 47 (78%)          |
| Race         | White/Caucasian | 58 (97%)          |
|              | Jewish Irani    | 1 (1%)            |
|              | Hispanic/Latino | 1 (1%)            |
| Diagnosis    | iCCA            | 46 (77%)          |
|              | eCCA            | 6 (10%)           |
|              | pCCA            | 8 (13%)           |

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# RESULTS

|            | Type of Exercise                         | Fre |
|------------|--|-----|
|            | Walking                                  | Ne  |
|            |  | Se  |
|            |  | So  |
|            |  | Of  |
| and        | Light Sport or Recreational Activity     | Ne  |
| se         |  | Se  |
| atus       |  | So  |
|            |  | Of  |
|            | Moderate Sport or Recreational Activity  | Ne  |
|            |  | Se  |
| e, a<br>ia |  | So  |
|            |  | Of  |
|            | Strenuous Sport or Recreational Activity | Ne  |
|            |  | Se  |
| е          |  | So  |
| ng         |  | Of  |
| e-         | Resistance/Strength Training             | Ne  |
|            |  | Se  |
| %)         |  | So  |
|            |  | Of  |
|            |  |     |

| <b>Type of Exercise</b> | Frequency | Increased Diet | <b>Decreased Diet</b> | <b>Unchanged Diet</b> |
|-------------------------|-----------|----------------|-----------------------|-----------------------|
| Walking                 | No        | 0 (0%)         | 10 (59%)              | 7 (41%)               |
|                         | Yes       | 7 (16%)        | 11 (26%)              | 25 (58%)              |
| Resistance/Strength     | No        | 3 (6%)         | 18 (38%)              | 26 (55%)              |
|                         | Yes       | 4 (31%)        | 3 (23%)               | 6 (46%                |
| *Yes=Often & Some       | etimes    | No=Seldom &    | Never                 |                       |

| requency | Participants N=60 (%) |
|----------|-----------------------|
| lever    | 4 (7%)                |
| eldom    | 13 (22%)              |
| ometimes | 20 (33%)              |
| Often    | 23 (38%)              |
| lever    | 43 (72%)              |
| eldom    | 9 (15%)               |
| ometimes | 2 (3%)                |
| Often    | 6 (10%)               |
| lever    | 52 (87%)              |
| eldom    | 6 (10%)               |
| ometimes | 0 (0%)                |
| Often    | 2 (3%)                |
| lever    | 50 (83%)              |
| eldom    | 5 (8%)                |
| ometimes | 5 (8%)                |
| Often    | 0 (0%)                |
| lever    | 30 (50%)              |
| eldom    | 17 (28%)              |
| ometimes | 9 (15%)               |
| Often    | 4 (7%)                |
|          |                       |

| 35 | _ |
|----|---|
| 30 |   |
| 25 | - |
| 20 | - |
| 15 | - |
| 10 | - |
| 5  |   |
| 0  |   |
|    | • |
|    | 1 |
|    | F |
|    |   |

- Nutritional status and physical activity can be critical keys to maintaining a cancer patient's QOL. • A large epidemiological study is needed to
- Monitor the caloric intake closely and food volume of patients by their nutritionists
- Evaluate the association between physical activity and nutrition status with patients' performance status and treatment
- Assess the impact of maintaining physical activity and adequate nutrition on patients' survival and QOL after adjusting for several confounding factors including patients' performance status, staging, treatment, etc.

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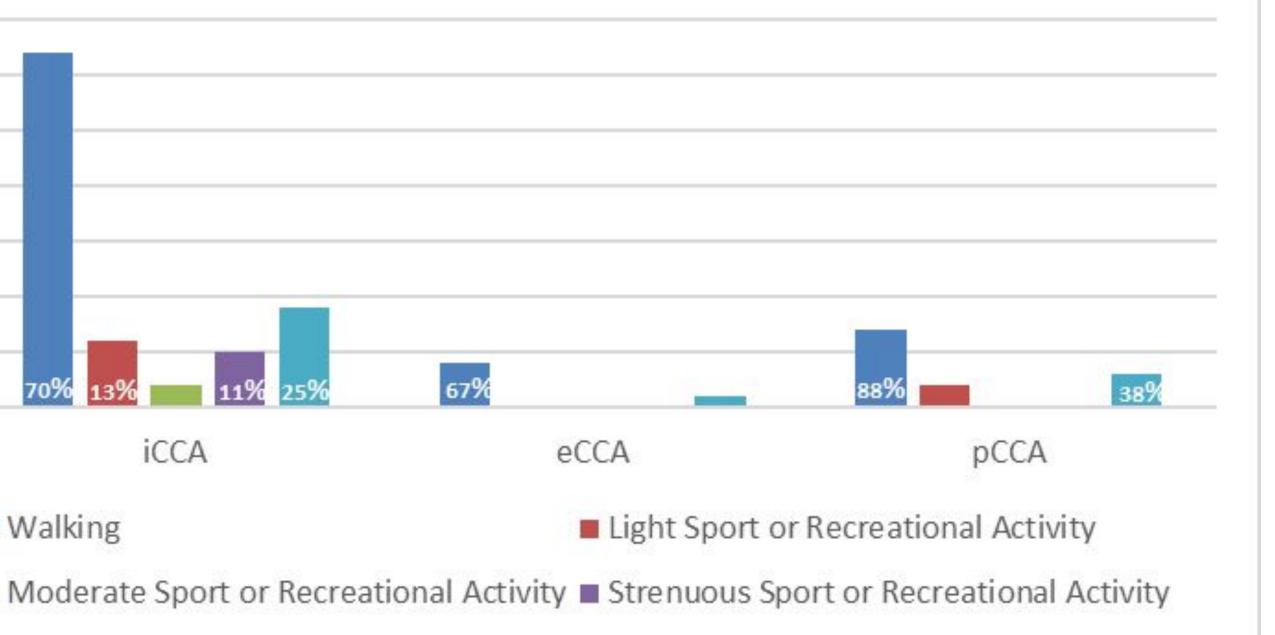
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We would like to thanks our CCA patients and their caregivers for participating in this survey.



# WALKING FREQUENCY BY SUBTYPE

### Activity Engagement by CCA Subtype



Resistance/Strength Traing

# CONCLUSIONS

# REFERENCES

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