448P Prevalence of Thyroid Dysfunction, Diabetes and Impact of Palliative Chemotherapy in Advanced Metastatic Cancer patients: Prospective data from LMIC

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INTRODUCTION

Cancer and Endocrine disorders, both represent independently chronic, fatal and complex entities and they share various risk factors. Recent evidences suggest various late complications in cancer survivors; thyroid disorders and diabetes remain undiagnosed and untreated. We planned this prospective study in advanced cancer patients.
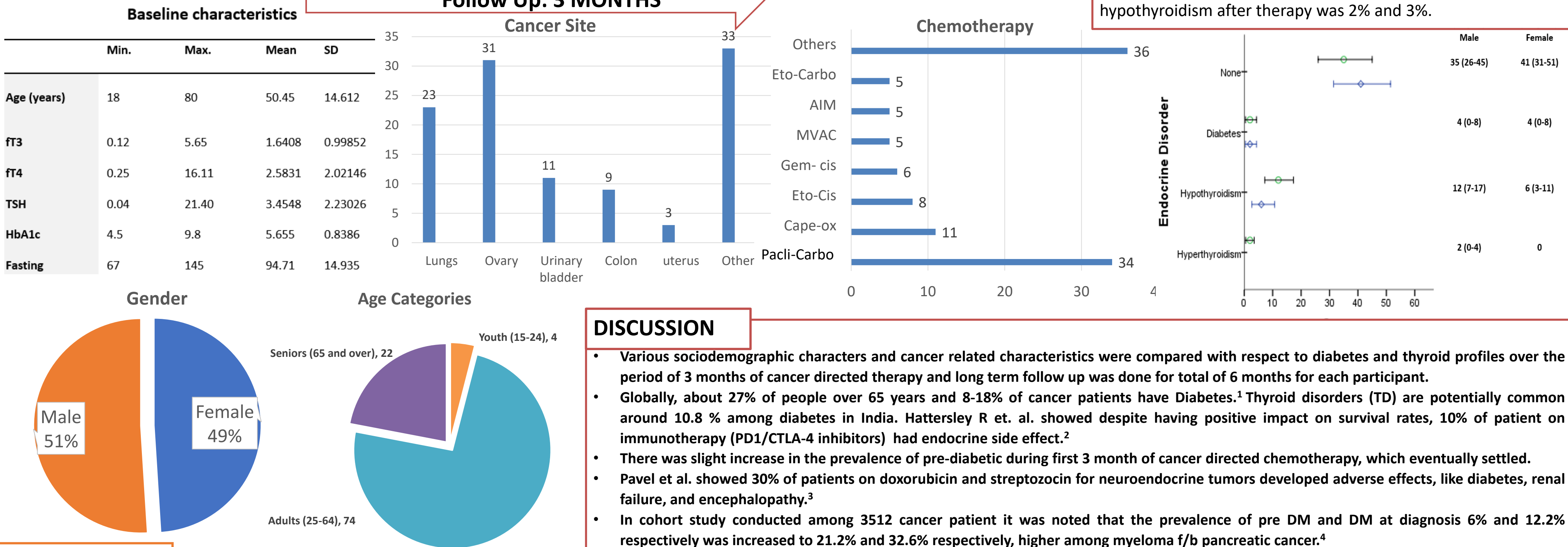
OBJECTIVES

To study the changes in diabetes and thyroid profile of metastatic cancer patient on palliative chemotherapy

METHODOLOGY

Prospective observational Study

Histologically proven metastatic Cancers, without prior treatment

3rd Month: Diabetes and Thyroid Profile

Standard of Care Rx

Baseline: Diabetes and Thyroid Profile

Analysis: SPSS v23.0

Follow Up: 3 MONTHS

RESULTS

Initial prevalence of DM and hypothyroidism was 6% and 10%, respectively. About 12% had prediabetes which did not worsen even after prolonged use of steroids as an adjunct to chemotherapy.

In the study population, the incidence of new-onset DM and hypothyroidism after therapy was 2% and 3%.

Baseline characteristics

	Min.	Max.	Mean	SD
Age (years)	18	80	50.45	14.612
fT3	0.12	5.65	1.6408	0.99852
fT4	0.25	16.11	2.5831	2.02146
TSH	0.04	21.40	3.4548	2.23026
HbA1c	4.5	9.8	5.655	0.8386
Fasting	67	145	94.71	14.935

Cancer Site

- Lungs: 23
- Ovary: 31
- Urinary bladder: 11
- Colon: 9
- uterus: 3
- Other: 33

Chemotherapy

- Others: 36
- Eto-Carbo: 5
- AIM: 5
- MVAC: 5
- Gem- cis: 6
- Eto-Cis: 8
- Cape-ox: 11
- Pacli-Carbo: 34

Endocrine Disorder

Endocrine Disorder	Male	Female
None	35 (26-45)	41 (31-51)
Diabetes	4 (0-8)	4 (0-8)
Hypothyroidism	12 (7-17)	6 (3-11)
Hyperthyroidism	2 (0-4)	0

Gender

- Male 51%
- Female 49%

Age Categories

- Youth (15-24), 4
- Seniors (65 and over), 22
- Adults (25-64), 74

DISCUSSION

- Various sociodemographic characters and cancer related characteristics were compared with respect to diabetes and thyroid profiles over the period of 3 months of cancer directed therapy and long term follow up was done for total of 6 months for each participant.
- Globally, about 27% of people over 65 years and 8-18% of cancer patients have Diabetes.[1] Thyroid disorders (TD) are potentially common around 10.8 % among diabetes in India. Hattersley R et. al. showed despite having positive impact on survival rates, 10% of patient on immunotherapy (PD1/CTLA-4 inhibitors) had endocrine side effect.[2]
- There was slight increase in the prevalence of pre-diabetic during first 3 month of cancer directed chemotherapy, which eventually settled.
- Pavel et al. showed 30% of patients on doxorubicin and streptozocin for neuroendocrine tumors developed adverse effects, like diabetes, renal failure, and encephalopathy.[3]
- In cohort study conducted among 3512 cancer patient it was noted that the prevalence of pre DM and DM at diagnosis 6% and 12.2% respectively was increased to 21.2% and 32.6% respectively, higher among myeloma f/b pancreatic cancer.[4]

CONCLUSION

- **Screening for DM and TD should be routinely practiced to improve life quality in cancer survivors.**
- **The adjunct steroids might improve treatment tolerance and compliance by reducing therapy-related side effects, but new-onset DM incidence was not increased.**

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