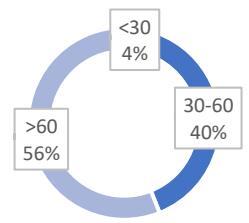


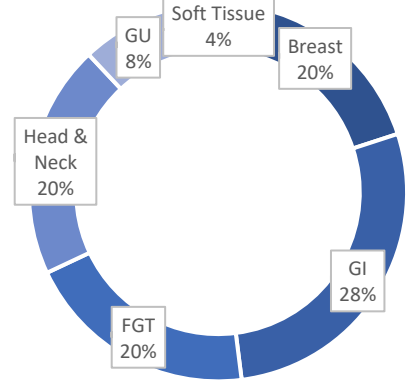
A PILOT STUDY ON SYNCHRONOUS AND METACHRONOUS MULTIPLE PRIMARY MALIGNANCIES- MYTH OR REALITY

Dr. AMMU.A ,Dr.RENU MARIAM THOMAS, Dr.ELEZEBETH MANUEL,Dr.PUSHPA MAHADEVAN
VPS LAKESHORE HOSPITAL,KOCHI,KERALA,INDIA

Age Distribution

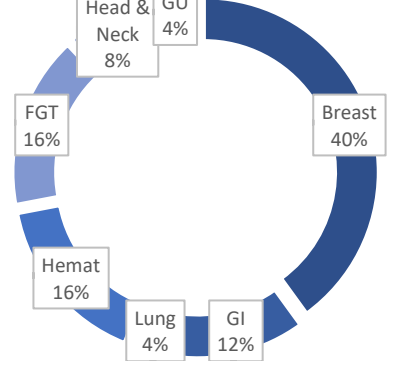


Second primary tumour



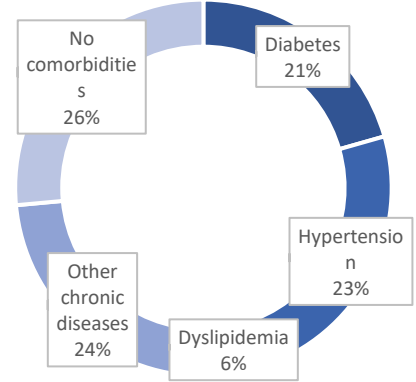
Male 28% Female 72%

Primary tumour



Synchronous 16% Metachronous 84%

COMORBIDITIES



INTRODUCTION :

There is a global increase in the incidence of multiple primary malignancies(MPMs), ranging from 0.52–11.7%. These tumors can be categorised as synchronous and metachronous cancers based on the time interval between the diagnosis, synchronous being within 6 months of the first primary tumour and metachronous after 6 months interval. Although not well-established, potential risk factors for the development of MPMs include persistent exposure to environmental carcinogens, advanced age, genetic mutations & syndromes, increased use of chemo-radiation, hormonal and genetic therapies. The aim of this study is to increase awareness on the incidence of MPMs and the significance of identifying the risk factors for cancer development.

METHODS:

25 MPMs diagnosed on biopsy during a 5 year period from 2019-2023 were collected retrospectively and prospectively from the centralised database of the hospital. Different variables including patient characteristics like age and gender, comorbidities, tumour characteristics like site and morphology, treatment received for each primary tumour, time interval between the 1st and second primary tumour, the morphological association between the tumours along with risk factors for development of these tumours were analysed.

HISTOLOGY	PRIMARY TUMOR	SECOND PRIMARY TUMOR	TREATMENT	PRIMARY TUMOR	SECOND PRIMARY TUMOR
CARCINOMA	21	24	CHEMOTHERAPY	5	2
SARCOMA	-	1	RADIOTHERAPY	-	-
HEMATO-LYMPHOID	4	-	SURGERY	6	12
			SURGERY+ CHEMO	14	11

RESULTS

- * Incidence- Metachronous 84% Synchronous 16%
- *F>M
- *Peak age- 5th to 7th decade
- *Common comorbidity- HTN &DM
- *Family history of malignancy- 48%
- *Most common site- 1st tumour- Breast 2nd tumour- GIT
- *H/o chemoradiation for 1st tumour- 76%

CONCLUSION

A study of multiple primary malignant neoplasms and further analysis of the antecedent risk factors, genetic predispositions and neo environmental factors helps in key revelations in the sequence of cancer development and progression, which can help in primordial prevention along with monitoring, enhanced genetic counselling and screening. Increased awareness of the patterns and time intervals of a second primary helps during pre-treatment evaluation for primary tumor and by regular follow up of these patients with primary tumor, an early detection along with treatment of second primary tumors becomes possible leading to better survival in these patients .

REFERENCES

- 1.who. Cancer [Internet]. [cited 2022 Dec 17]. Available from: <https://www.who.int/health-topics/cancer>
- 2.Pattern of occurrence and treatment outcome of second primary malignancies: A single center experience - PMC [Internet]. [cited 2022 Dec 18]. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC56158873>.BoSy
- 3.Comparative analysis of synchronous and metachronous tumours. Sinchroninių ir metachroninių navikų palyginamoji analizė [Internet]. 2018 [cited 2022 Dec 18]; Available from: <https://www.lsmuni.lt/cris/handle/20.500.12512/105268>