



Shri Vithalrao Joshi Charitable Trust's

B.K.L Walawalkar Rural Medical College

# B.K.L Walawalkar Hospital, Diagnostic & Research Centre

Kasarwadi Sawarde, Chiplun, Maharashtra, India.

## Hospital Based Cancer Registry Report 2022





**Dr. Rajendra Badwe Inaugurating the Linear Accelerator Varian equipment on 10<sup>th</sup> October 2022**



**Bhaktashreshtha Kamalakar pant Laxman Walawalkar Hospital (BKLWH), Chiplun, Maharashtra, India**

<b>Name</b>	<b>Role</b>	<b>Designation</b>
Dr. Suvarna Patil	Principal Investigator	Medical Director, BKLW Hospital
Dr. Netaji Patil	Co – Investigator	Radiologist, BKLW Hospital
Dr. Gajanan Velhal	Co – Investigator	Professor & Head of the Dept, Community medicine
Dr. Abhay Desai	Co – Investigator	Ex-Associate Professor, General Surgery
Dr. Vijay Dombale	Co – Investigator	Professor & Head of the Dept, Pathology
Dr. Anand Gajkosh	Co – Investigator	Professor, Radio- Diagnosis, BKLW Hospital

**Tata Memorial Centre (TMC), Mumbai and Centre for Cancer Epidemiology (CCE), TMC, Mumbai**

<b>Name</b>	<b>Designation</b>
Dr. Sudeep Gupta	Director, TMC
Dr. Rajendra Badwe	Ex- Director, TMC
Dr. Shripad Banavali	Director Academic, TMC
Dr. Rajesh Dikshit	Director, CCE, TMC
Dr. Pankaj Chaturvedi	Deputy Director, CCE, TMC
Dr. Atul Budukh	Professor (Epidemiology), CCE, TMC

**Hospital Based Cancer Registry Staff (HBCR)**

<b>Name</b>	<b>Designation</b>
Mrs. Prajakta More	Clinical Instructor
Mrs. Ruchira Nandoskar	Assistant Professor, Community Health Nursing
Mrs. Mansi Kulkarni	Clinical Instructor, Dept. of Community Health Nursing

**Technical Support by Centre for Cancer Epidemiology (CCE), TMC, Mumbai**

<b>Name</b>	<b>Designation</b>
Mrs. Deepali Lokhande	Scientific Assistant
Mr. Pratik Sawant	Programmer
Ms. Sushama Saoba	Scientific Assistant
Mrs. Suvarna Kolekar	Social Investigator
Mrs. Prachi Joshi Nandrekar	Scientific Assistant

**Office Address:**

**Hospital Based Cancer Registry (HBCR),  
Bhaktashreshtha Kamalakar pant Laxman Walawalkar Hospital (BKLWH),  
Kasarwadi, Sawarde,  
Taluka: Chiplun  
District: Ratnagiri- 415606,  
Maharashtra, India.**

**Contact: Dr. Suvarna Patil, Mrs. Prajakta More, Dr. Abhay Desai, Dr. Netaji Patil, Dr. Gajanan Velhal, Dr. Vijay Dombale, Dr. Anand Gaikosh**

**Email:**

dr.suvarnanpatil@gmail.com, dr.netajipatil1912@gmail.com, moreprajakata959@gmail.com, aydesai111@gmail.com, vgajanan@rediffmail.com, drvijaydombale@gmail.com, drgajakos@gmail.com, amarpatil005@gmail.com, rysakpal@gmail.com, drsheetal1@gmail.com, nandoskar95@gmail.com, mansik5188@gmail.com

**Citation:**

**Patil S, More P, Lokhande D, Desai A, Patil N, Velhal G, Dombale V, Gaikosh A, Patil A, Sakpal R, Patil S, Nandoskar R, Kulkarni M**

**Hospital Based Cancer Registry Report 2022. Bhaktashreshtha Kamalakar pant Laxman Walawalkar Hospital Diagnostic & Research Centre, Chiplun, Maharashtra, India (2024).**

## Table of Contents

Sr. No.	Title	Pg. No.
1	Executive summary	1
2	Establishment of Bhaktashreshtha Kamalakar pant Laxman Walawalkar Hospital, Chiplun, Maharashtra, India	4
3	Diagnostic and Treatment Facilities at BKLW Hospital	6
4	Cancer Case Registration method	14
5	Cancer Cases registered in 2022	17
6	Leading sites for the year 2022	21
7	Treatment profile of cancer cases	22
8	Mode of payment	24
9	MJPJAY Scheme details	25
10	Characteristics of cancer patients treated in 2022	26
11	Patterns and clinical details of leading cancer sites	28
	Mouth cancer (C03-C06)	29
	Tongue cancer (C01-C02)	35
	Esophageal cancer (C15)	41
	Lung cancer (C33-C34)	47
	Colon cancer (C18)	53
	Rectal cancer (C19-C20)	59
	Laryngeal cancer (C32)	65
	Breast cancer (C50)	70
	Ovarian cancer (C56)	76
	Cervical cancer (C53)	81
12	Tobacco Related Cancers	86
13	Geriatric cancers	87
14	Haematological cancers	88
15	Number of cancer cases by age group and site	89
16	References	91
17	Acknowledgements	92

# 1. Executive Summary

- Shree Vitthalrao Joshi Charities Trust established the B.K.L.Walawalkar Hospital in Ratnagiri district in 1996. The hospital is a manifestation of the vision of the saint Shree Sahajanand Saraswati Maharaj who planned to offer health services to the poor and marginalized people of the Konkan region
- The key principle behind the endeavour is to make available state-of-the-art medical facilities at affordable rates to the rural populace.
- The Hospital-based Cancer Registry (HBCR) was started in November 2022.
- Staff has been trained at CCE- TMC, Software was provided by CCE and regular quality control of the registry
- In the year 2022, 528 cancer cases were registered. Of the 528 cases, 458 (86.7 %) were new and 70 (13.3 %) were old.
- Of the total 528 cases, 349 (66.1%) cases are from Ratnagiri, 88 (16.7%) from Sindhudurg, 64 (12.1%) Raigad and 27 (5.1%) from other parts of the state.
- Out of 528 cases males are 249 (47.2%) and females are 279 (52.8%).
- Among males, mouth was the predominant cancer with 78 cases (31.3%) followed by tongue cancer 25 (10%), lung cancer 15 (6%), rectum cancer 14 (5.6%) and larynx cancer 13 (5.2%).
- 70- 80% of mouth and tongue cancer cases attended hospital at loco-regional stage.
- Around 40% cases of lung and colon were presented with distant metastasis.
- For females, breast cancer was the predominant cancer with 87 cases (31.2%) followed by mouth cancer 49 (17.6%), ovary cancer 19 (6.8%), esophagus cancer 18 (6.5%) and cervix uteri cancer 17 (6.1%).
- 60-70% of breast and cervix cancers attended hospital at loco-regional stage.
- With regards to receptor status of breast cancer 25.3% cases are ER, PR and HER2 negative.

- Overall, 439 (83.1%) cancer patients out of 528 received treatment at BKL Walawalkar Hospital.
- Of the 439 cases treated at the hospital, surgery was performed for 171 cases (39.0%), radiotherapy was given to 180 cases (41.0%) and chemotherapy was given to 343 cases (78.1%).
- In total, 241 cases (45.6%) completed their treatment.
- 292 cases (55.3%) cases received Mahatma Jyotiba Phule Jan Aarogya Yojna to avail cancer treatment.
- Out of 249 male cancer cases, 163 (65.5%) are tobacco related cancer. In females, out of 279 cancer cases, 99 (35.5%) are tobacco related cancers.
- A total of 21 cases (4.0%) of haematological malignancies were registered.
- For paediatric cancers of the age group 0-14 years, only 3 cases were registered.

## Recommendations

After careful consideration of all findings, the hospital is recommended to:

- ✓ Maintain an electronic medical record which can offer numerous advantages in terms of efficiency, patient care, and overall health care management.
- ✓ Provide information about various healthcare schemes and eligibility criteria to patients at the time of registration is a commendable approach to ensure that eligible individuals can benefit from available support.
- ✓ Hospital administration should meet district hospital to cater patients to BKL Walawalkar hospital for diagnosis and treatment. This collaboration will ensure that patients receive timely and quality healthcare services. It will also help in reducing the burden on district hospitals by utilizing the specialized facilities available at BKL Walawalkar hospital.
- ✓ Continuing Medical Education (CME) for Primary Health Centre (PHC) doctors should be organized to assist patients in utilizing the hospital's facilities.
- ✓ Regular CME should be organised in Ratnagiri, Sindhudurg and Raigad districts as most of the patients are registered from these districts. The facilities available in the hospital should be informed to the medical communities from these districts.
- ✓ Undertake survival studies of leading cancer sites. Technical support can be provided by CCE-TMC.
- ✓ A data management team and senior staff of the registry should be deputed regularly to TMC -CCE for quality control and for gaining the new skills such as survival analysis.
- ✓ HBCR team should speed up the data abstraction and coding work to reduce the time of data analysis.
- ✓ Many variables like education and income status are missing, we should strive to reduce the missed information in the next HBCR reports.
- ✓ By end of the month, the administration of the hospital should review the progress of the HBCR.
- ✓ Telephonic follow up calls should be done to patients to maintain the follow-up.

## **2. Establishment of B.K.L Walawalkar Hospital, Sawarde, Chiplun, Ratnagiri, Maharashtra**

The Konkan region of Maharashtra has villages located at long distances in between hills and valleys, and health care is largely inaccessible. This region has insufficient healthcare facilities, illiteracy, poverty, low health awareness, misconceptions based on blind faith and limited transportation options.

Until recently, patients had to travel 250 kms to Mumbai for medical treatment. The population in this region is socio-economically disadvantaged and seeking medical care in cities incurs travel and hotel cost that are mostly expensive. In 1996 Shree Vitthalrao Joshi Charities Trust established the Bhaktashreshta Kamlakarpan Laxman Walawalkar Hospital (BKLWH) in Ratnagiri district to provide good medical care to the most remote areas.

BKLWH is located in the small village of Dervan, about 16 kms from Chiplun Tehsil on the Mumbai-Goa highway. The hospital is a manifestation of the vision of the saint Shree Sahajanand Saraswati Maharaj, who planned to offer health services to the poor and marginalized people in the Konkan region. His disciples have made the vision a reality through hard effort, but most significantly, incredible faith and devotion to the cause started by the 'Sadguru'. The primary goal is to provide state-of-the-art medical facilities to rural communities at reasonable prices.

BKL Walawalkar Hospital created preventive initiatives in the community, initially with its own funds, later in collaboration with well-known and specialty hospitals such as Tata Memorial Centre in Mumbai, to eradicate dangerous diseases. This collaboration of TMCROP (Tata Memorial Centre Rural Outreach Program) involved screening and epidemiological studies of oral, cervical, breast and esophageal cancers, with the help of ultra-modern technologies. Patients with these four cancers are also admitted to the hospital and treated for free. This TMCROP has now been transformed into a comprehensive cancer care center with facilities for medical oncology, surgical oncology and cutting-edge radiation facilities such as Halcyon Linac accelerator, CT simulator, high density radiation, Bhabhatron II and upcoming nuclear medicine set up with PET and SPECT scanning.

The Trust established various education projects to meet the basic, higher, and special educational needs of students who had to travel miles for these courses, including Primary & Secondary English medium schools, Samarth Nursing School, College of Advanced Studies, MBBS, and Physicians & Surgeons. The institute offers courses approved by the Government and relevant authorities,

including the Nursing Council, State Board of Technical Education, Maharashtra University of Health Science, and Mumbai University.

The Dervan Model exemplifies how combining charity and excellence can significantly improve the quality of life for the rural underprivileged population.

**Table No. 1: Establishment of various facilities at B.K.L Walawalkar Hospital**

<b>Date</b>	<b>Major Events/Establishments</b>
1996	B.K.L. Walawalkar Hospital, Research & Diagnostic Centre started
May 2000	Shree Sami Samarth Blood Bank
July 2001	Malnutrition Project for Children in Konkan area
January 2001	Samarth Nursing School –ANM/GNM/B.Sc. Nursing
Aug 2003	College of Advanced Studies -PGDMLT
August 2003	Tata Memorial Centre Rural Outreach Programme (Model Cancer Control Programme for Konkan region)
January 2004	Spiral CT Scan Machine
February 2005	National Training Programme in Preventive Oncology
January 2006	Yearly Surgery Camp by UK Doctors Team started
July 2006	ISO 9001-2000 Certification
April 2007	REACH Programme (Rural Empowerment and Community Health)
March 2009	Radiation Therapy (Bhabhatron II) Unit
March 2009	Dervan Rural Cancer Registry in collaboration with Tata Memorial Centre
September 2009	CHEST (Cancer of Hypopharynx & Esophagus Screening Trial) Project in collaboration with Tata Memorial Centre
January 2010	Mobile Medical Unit (MMU)
October 2010	Blood Component Lab Opening Ceremony
November 2011	Mobile Medical Unit Release Ceremony (NRHM)
April 2012	Microbiology Laboratory
January 2013	Bhoomi poojan of B.K.L. Walawalkar Rural Medical College
September 2015	B.K.L. Walawalkar Rural Medical College Opening Ceremony
December 2017	Anurag T55 Tank Opening Ceremony
January 2018	Bajaj Finserv Cath Lab
June 2018	Cardiac Theatre Opening
October 2018	Dream Health Park Opening
June 2019	RGST DST funded project for adolescent girls-Opening
July 2019	MRI Opening
September 2020	Virology Opening
January 2021	ART Centre Opening
January 2021	DRTB Centre Opening
June 2022	Genomics Laboratory Opening
October 2022	Opening ceremony of 'HALCYON Radiation unit' & ground-breaking ceremony of Nuclear medicine
April 2023	NSDC Certified Skill Development Training Inaugural Function
July 2023	NAAC accreditation
May 2023	NABH Entry level accreditation

### 3. Diagnostic & treatment facilities at B.K.L Walawalkar Hospital

#### Radiology



**CT-Simulator**



**MRI**



**Digital X-Ray**



**Mammography**



**Ultrasonography**

## Biochemistry Hematology Equipment



**Biochemistry Analyser**



**ACL Elite (Coagulation Analyser)**



**Biochemistry Analyser**



**BioRad D10- HbA1c Analyser**

## Operation Theatre Equipment



**C-Arm Machine**



**Anesthesia Machine with Ventilator**



**Ethylene Oxide Sterilizer**



**Autoclave Machine**

## Histopathology Equipment



**Automatic cover slipper**



**Automatic slider steiner**



**Automatic Tissue Embedded**



**Automatic Tissue Processor**



**Band Saw**



**Fully motorized microtome**



**Grossing Section**



**Immunohistochemistry Machine**

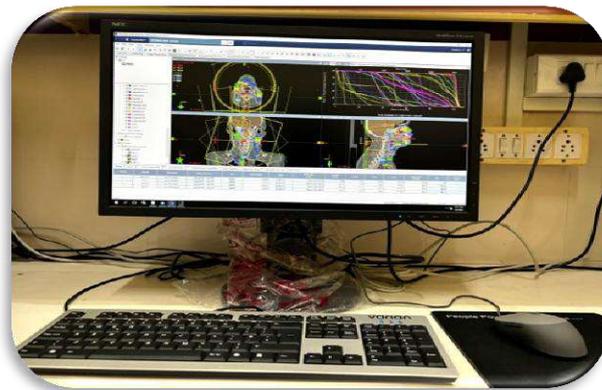


**Trinocular Microscope with bright field,  
Dark field florescent & Polarizing facility**

## Radiotherapy Facility



**Microselectron- HDR**



**Treatment Planning System**



**Varian Halcyon (Linear Accelerator)**



**Bhabhatron- II**

## Operation Theatre, Wards & Department



**Operation Theatre**



**Intensive Care Unit**



**Surgery Ward**



**Oncology OPD**

## Allied Services



**Conference Hall**



**Pharmacy**



**Medical Record Dept**



**MSW Department**



**Ambulance**



**Clinical Trial Department**

## 4. Cancer case registration method

The HBCR at BKL Walawalkar hospital was started on 1<sup>st</sup> January 2022. **The objective of the hospital cancer registry is to know the patterns of cancer patients treated at HBCH as well as to support hospital administration in improving the cancer care services.** The HBCR data is useful in planning the clinical trials as well as case-control studies.

### Staff Training

Two staff having public health/medical background were selected for the case abstraction of the cancer registry. The staff members have undergone training at Centre for Cancer Epidemiology (CCE), TMC-ACTREC, Kharghar, Navi Mumbai. HBCR proforma was prepared by the CCE unit in consultation with the authority of BKL Walawalkar hospital.

### Training was provided on following topics

- Types of cancer registry and its role in cancer control
- Data items to be collected for HBCR
- Case abstraction and ICD-O Coding
- Cancer Staging
- Practical exercise on case abstraction of
  - Head & Neck Cancer
  - Gastrointestinal Cancer
  - Genito-Urinary Cancer
  - Hematological Cancer
  - Pediatric Cancer
  - Breast, Cervix, Prostate & Lung Cancer
- Entry and data analysis in CanReg5 software
- Pubmed
- Data quality parameters IARC- CHECK programme
- Tobacco Quit Line Services

### Case abstraction

The trained cancer registry staff abstracts the case information from case files/ electronic medical records on the designed proforma. All the data are coded using ICD-O3 edition4. The collected data is entered in the Canreg5 software5. The data is entered regularly, and its backup is sent to CCE – ACTREC unit. The cancer registration method is described in figure 1.

## Quality control of the data

The entered data is checked by the senior staff from CCE – ACTREC for quality control. The error observed in case abstraction is discussed with registry staff as well as with the clinicians.

The senior staff from CCE – ACTREC visited BKL Walawalkar hospital and discussed the logical as well as the system errors with the concerned staff. The error noted were corrected and entered into the database.

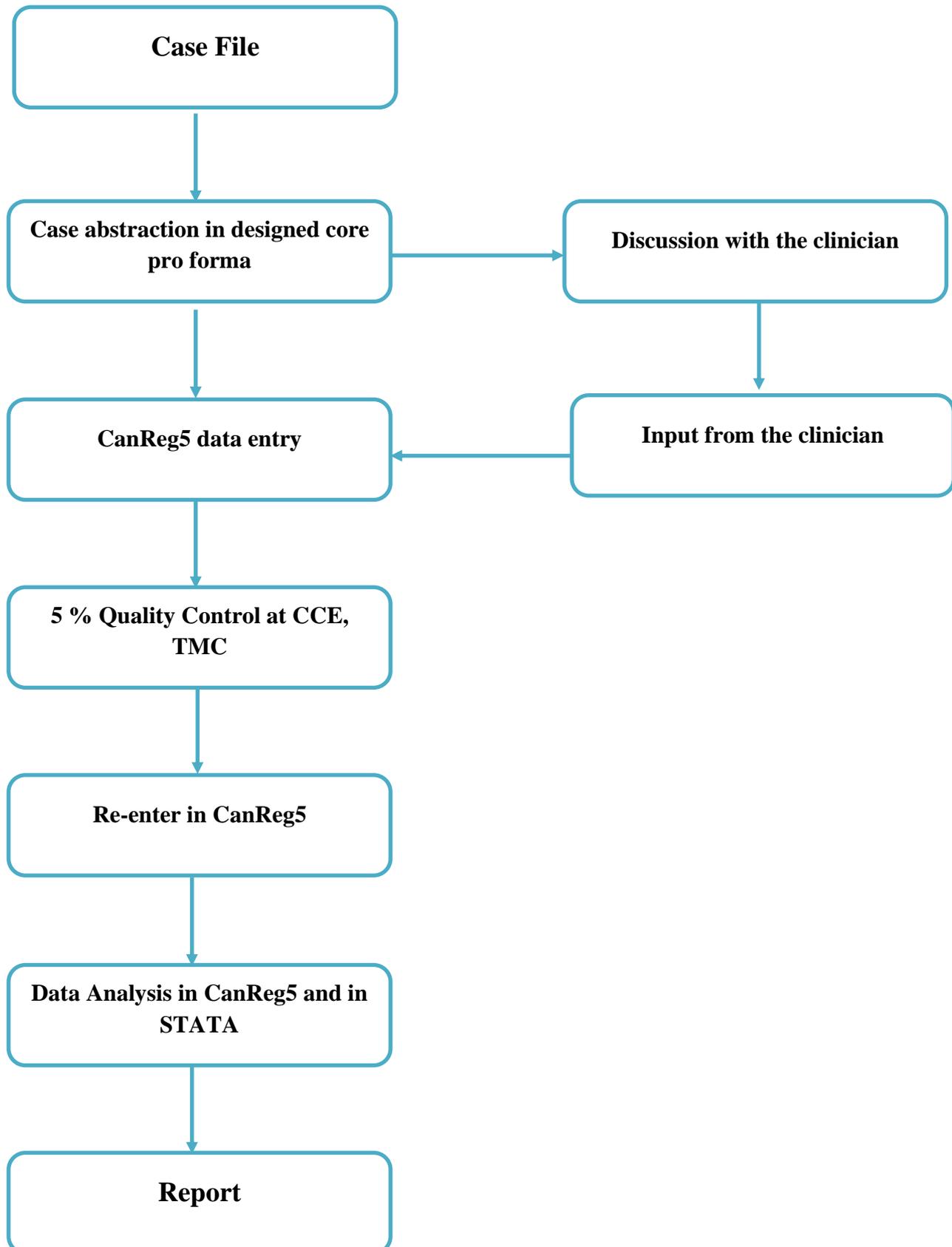
## Data analysis

The data is analyzed using CanReg5 software, STATA software and Microsoft Excel.

## Training Sessions at Centre for Cancer Epidemiology, ACTREC-TMC, Mumbai.



## Certificate Distribution

**Figure No. 1: Cancer case registration method**

## 5. Cancer case registered in the year- 2022

In the year 2022, we have registered 528 cancer cases, with 249 (47.1 %) males and 279 (52.8%) females. Of the 528 cases, 458 (86.7 %) were new and 70 (13.3 %) were old. The details of cancer cases registered by sex is presented in table no.2. 66.1 % cases were from Ratnagiri district followed by Sindhudurg with 16.7 % and Raigad with 12.1 %. The details are shown in table no.3 and figure no. 2.

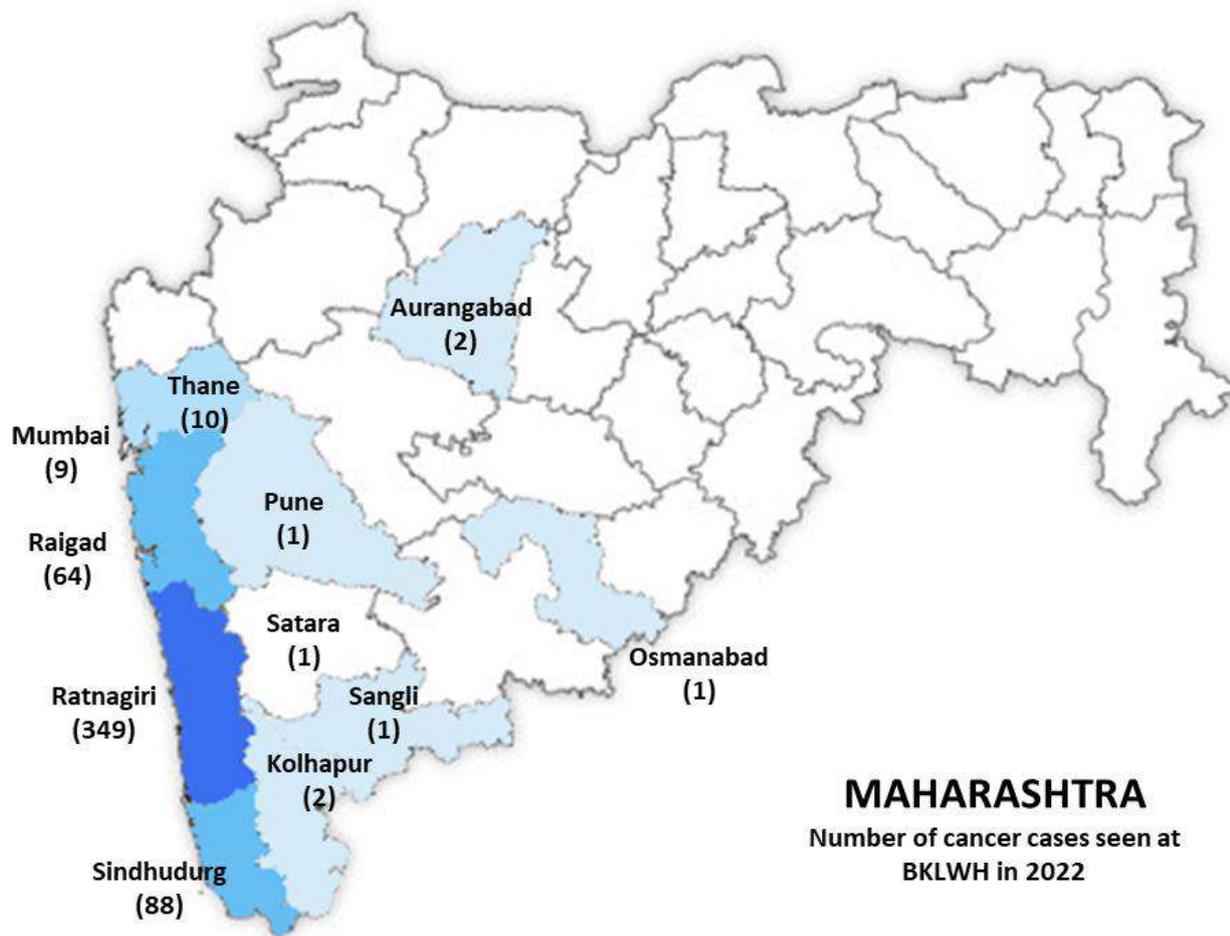
**Table No. 2: Cancer cases registered by sex in 2022**

Type of case	Male	%	Female	%	Total	%
Post treatment (old)	29	11.6	41	14.7	70	13.3
Per primum (new)	220	88.4	238	85.3	458	86.7
<b>Total</b>	<b>249</b>	<b>100.0</b>	<b>279</b>	<b>100.0</b>	<b>528</b>	<b>100.0</b>

**Table No. 3: Distribution of cancer cases by districts of Maharashtra in 2022**

District	Male	%	Female	%	Total	%
Ratnagiri	165	66.3	184	65.9	349	66.1
Sindhudurg	39	15.7	49	17.6	88	16.7
Raigad	30	12.0	34	12.2	64	12.1
Thane	6	2.4	4	1.4	10	1.9
Mumbai city	5	2.0	4	1.4	9	1.7
Kolhapur	1	0.4	1	0.4	2	0.4
Aurangabad	0	0.0	2	0.7	2	0.4
Pune	0	0.0	1	0.4	1	0.2
Osmanabad	1	0.4	0	0.0	1	0.2
Sangli	1	0.4	0	0.0	1	0.2
Satara	1	0.4	0	0.0	1	0.2
<b>Total</b>	<b>249</b>	<b>100.0</b>	<b>279</b>	<b>100.0</b>	<b>528</b>	<b>100.0</b>

**Figure no. 2: District wise distribution of cancer cases that visited BKLWH in 2022**



The mean age of both male and female cancer patients was 56 years. Age distribution of cancer cases has been elaborated in table 4. Tables 5 to 8 describe sociodemographic distribution of cancer cases across variables like occupation, education, religion and income.

**Table No. 4: Age distribution of cancer cases registered in 2022**

Age group (in years)	Male	%	Female	%	Total	%
0-4	3	1.2	0	0.0	3	0.6
5-9	0	0.0	0	0.0	0	0.0
10-15	0	0.0	0	0.0	0	0.0
15-19	2	0.8	0	0.0	2	0.4
20-24	0	0.0	0	0.0	0	0.0
25-29	4	1.6	4	1.4	8	1.5
30-34	8	3.2	12	4.3	20	3.8
35-39	12	4.8	16	5.7	28	5.3
40-44	19	7.6	24	8.6	43	8.1
45-49	29	11.6	37	13.3	66	12.5
50-54	25	10.0	41	14.7	66	12.5
55-59	29	11.6	39	14.0	68	12.9
60-64	36	14.5	32	11.5	68	12.9
65-69	40	16.1	25	9.0	65	12.3
70-74	22	8.8	23	8.2	45	8.5
75+	20	8.0	26	9.3	46	8.7
<b>Total</b>	<b>249</b>	<b>100.0</b>	<b>279</b>	<b>100.0</b>	<b>528</b>	<b>100.0</b>
<b>Mean age</b>	<b>Male: 56 years</b>				<b>Female: 56 years</b>	
<b>Median age</b>	<b>Male: 58 years</b>				<b>Female: 55 years</b>	

**Table No. 5: Cancer cases by education and sex in 2022**

Education	Male	%	Female	%	Total	%
Illiterate	0	0.0	0	0.0	0	0.0
Literate	1	0.4	0	0.0	1	0.2
Primary (1-7 std)	0	0.0	0	0.0	0	0.0
Secondary (8-10 std)	2	0.8	0	0.0	2	0.4
Technical (after 10th)	0	0.0	0	0.0	0	0.0
College	0	0.0	0	0.0	0	0.0
Post graduate	1	0.4	1	0.4	2	0.4
Other	2	0.8	5	1.8	7	1.3
Not applicable for children	3	1.2	0	0.0	3	0.6
Unknown / No Information	240	96.4	273	97.8	513	97.2
<b>Total</b>	<b>249</b>	<b>100.0</b>	<b>279</b>	<b>100.0</b>	<b>528</b>	<b>100.0</b>

**Table No. 6: Cancer cases by religion and sex in 2022**

Religion	Male	%	Female	%	Total	%
Hindu	235	94.4	270	96.8	505	95.6
Muslim	14	5.6	9	3.2	23	4.4
<b>Total</b>	<b>249</b>	<b>100.0</b>	<b>279</b>	<b>100.0</b>	<b>528</b>	<b>100.0</b>

**Table No. 7: Cancer cases by occupation and sex in 2022**

Occupation	Male	%	Female	%	Total	%
Professionals	1	0.4	0	0.0	1	0.2
Craft and Related trade workers	2	0.8	0	0.0	2	0.4
Plant and machine Operators and Assemblers	3	1.2	1	0.4	4	0.8
Not applicable to children's/students	5	2.0	0	0.0	5	0.9
Service and Sales workers	12	4.8	1	0.4	13	2.5
Not known	28	11.2	0	0.0	28	5.3
Skilled agricultural, forestry and Fishery workers	198	79.5	1	0.4	199	37.7
House wife	0	0.0	276	98.9	276	52.3
<b>Total</b>	<b>249</b>	<b>100.0</b>	<b>279</b>	<b>100.0</b>	<b>528</b>	<b>100.0</b>

**Table No. 8: Cancer cases by income and sex in 2022**

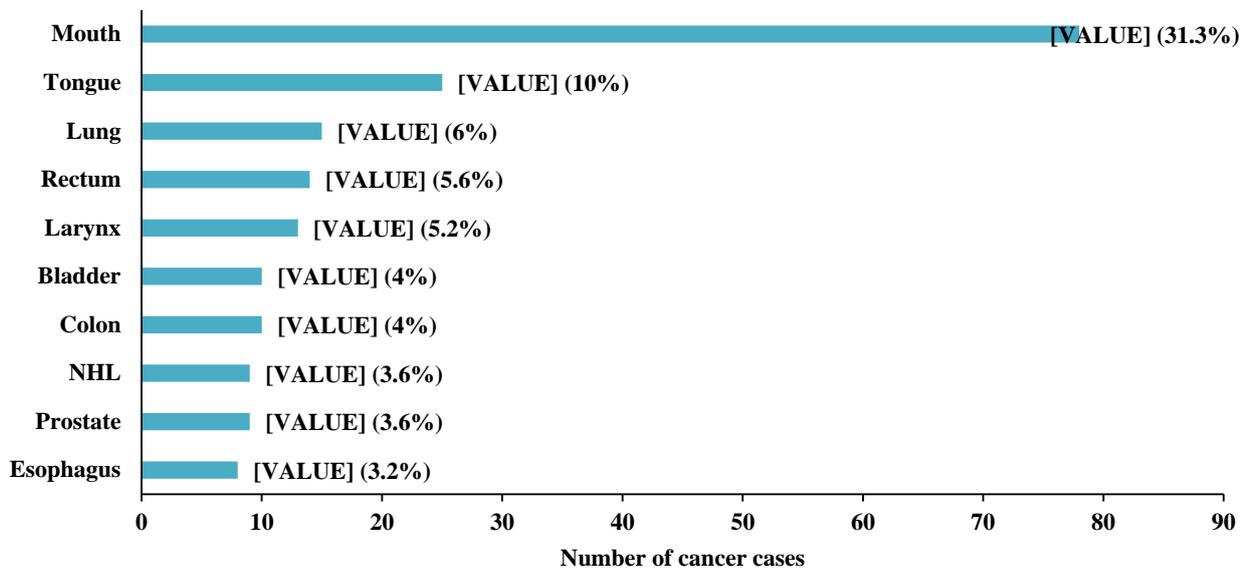
Income per month	Male	%	Female	%	Total	%
<=1520	2	0.8	4	1.4	6	1.1
3000-7000	1	0.4	1	0.4	2	0.4
Unknown/No information	246	98.8	274	98.2	520	98.5
<b>Total</b>	<b>249</b>	<b>100.0</b>	<b>279</b>	<b>100.0</b>	<b>528</b>	<b>100.0</b>

## 6. Leading cancer sites for the year - 2022

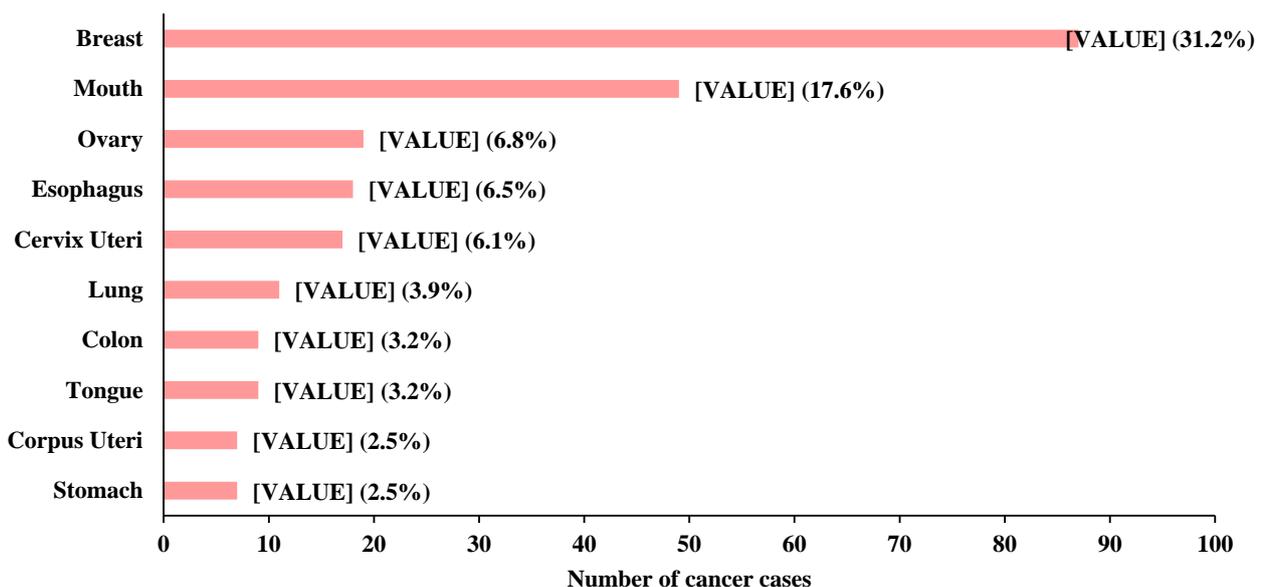
Among males, mouth cancer 78 cases and tongue cancer 25 cases are predominant cancers followed by lung cancer 15 cases, rectum (14), larynx (13), bladder (10), colon (10), NHL (9), prostate (9) and esophagus (8). The graphical presentation of leading cancer sites in males is presented in figure no.3.

Among females, breast is the predominant cancer with 87 cases followed by mouth (49), ovary (19), esophagus (18), cervix uteri (17), lung (11), colon (9), tongue (9), corpus uteri (7) and stomach (7). The graphical presentation of leading cancer sites in female is presented in figure no.4.

**Figure No. 3: Leading cancer sites in males registered in 2022**



**Figure No. 4: Leading cancer sites in females registered in 2022**



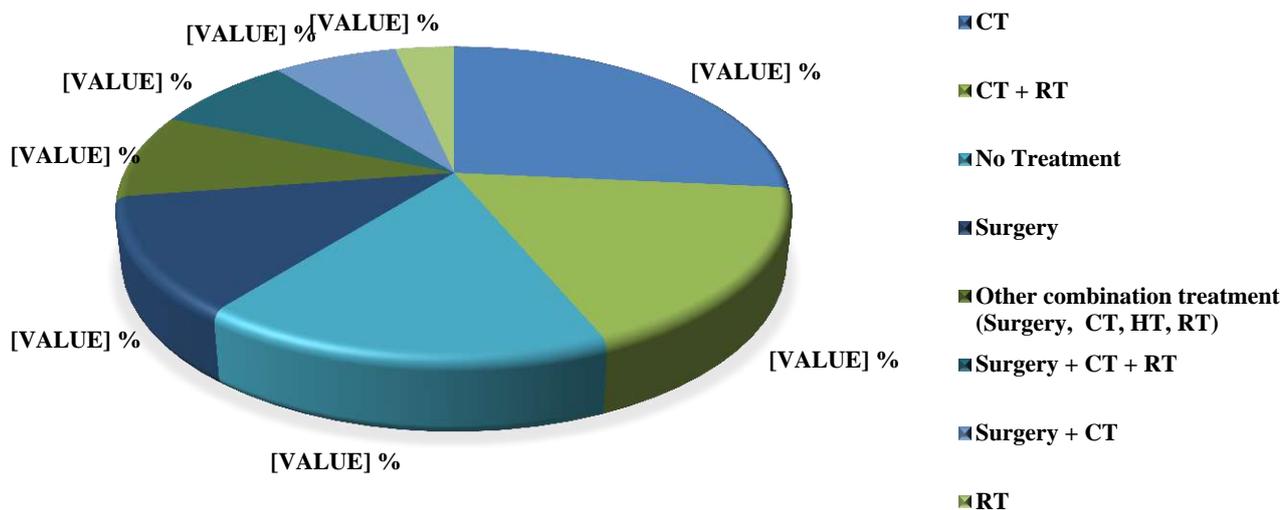
## 7. Treatment profile of cancer cases - 2022

Of the 528 cancer cases, 439 (83.1%) underwent treatment, 140 (26.5%) underwent chemotherapy, 91 (17.2%) chemotherapy and radiotherapy, 63 (11.9%) surgery, 43 (8.1%) surgery, chemotherapy and radiotherapy, 38 (7.2%) surgery and chemotherapy, 46 (8.7%) combination of various treatment. 18 (3.4 %) radiotherapy. The treatment details by sex are shown in table no.9 and graphical representation in figure no.5.

**Table No. 9: Cancer cases treated**

Treatment	Male	%	Female	%	Total	%
CT	74	29.7	66	23.7	140	26.5
CT + RT	43	17.3	48	17.2	91	17.2
No Treatment	46	18.5	43	15.4	89	16.9
Surgery	27	10.8	36	12.9	63	11.9
Surgery + CT + RT	24	9.6	19	6.8	43	8.1
Surgery + CT	15	6.0	23	8.2	38	7.2
RT	11	4.4	7	2.5	18	3.4
Other combination treatment (Surgery, CT, HT, RT)	9	3.6	37	13.3	46	8.7
<b>Total</b>	<b>249</b>	<b>100.0</b>	<b>279</b>	<b>100.0</b>	<b>528</b>	<b>100.0</b>
<b>Availed Treatment</b>	<b>203</b>	<b>81.5</b>	<b>236</b>	<b>84.6</b>	<b>439</b>	<b>83.1</b>

**Figure No. 5: Cancer cases treated**

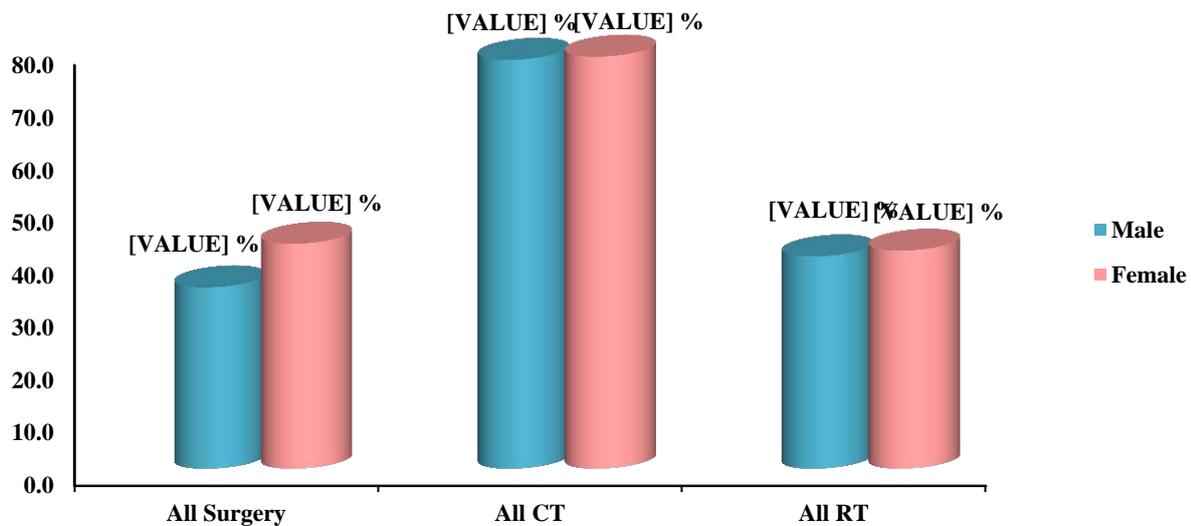


Of the 439 cases, 171 (39%) surgeries were done, 343 (78.1%) chemotherapy and 180 (41.0%) radiotherapy. Details are mentioned below in the table no.10 and graphical representation in figure no.6.

**Table No. 10: Treatment pattern among the 439 cancer cases who availed treatment**

Treatment Pattern	Male	%	Female	%	Total	%
All Surgery	70	34.5	101	42.8	171	39.0
All CT	158	77.8	185	78.4	343	78.1
All RT	82	40.4	98	41.5	180	41.0

**Figure No. 6: Treatment pattern among the 439 cancer cases who availed treatment**



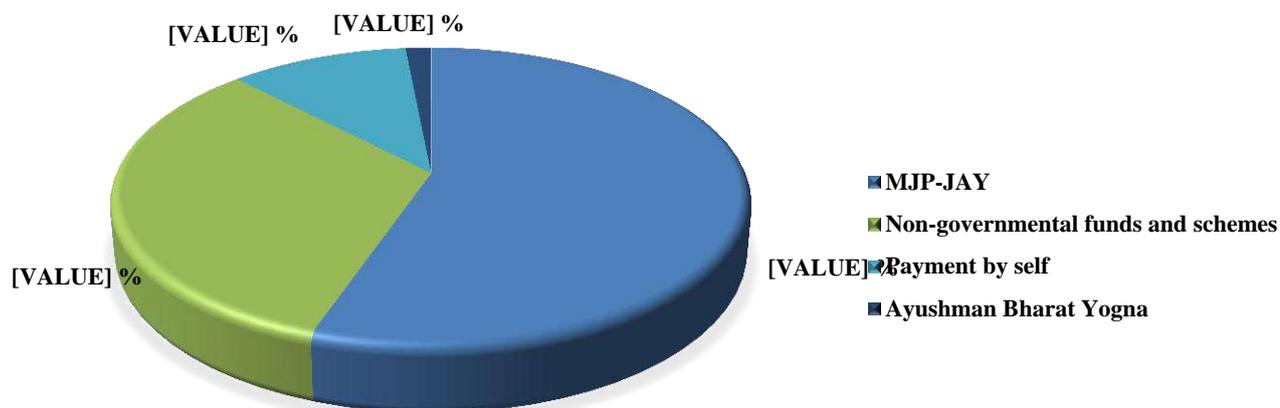
## 8. Mode of payment

There are several modes of payment available. Details are shown in table no.11 and graphical representation is shown in figure no.7.

**Table No. 11: Cancer cases by mode of payment**

Mode of Payment	Male	%	Female	%	Total	%
Covered under MJP-JAY	134	53.8	158	56.6	292	55.3
Covered under Ayushman Bharat Yojna	5	2.0	3	1.1	8	1.5
Covered under non-governmental funds and schemes	78	31.3	94	33.7	172	32.6
Payment by self	32	12.9	24	8.6	56	10.6
<b>Total</b>	<b>249</b>	<b>100.0</b>	<b>279</b>	<b>100.0</b>	<b>528</b>	<b>100.0</b>

**Figure No. 7: Cancer cases by mode of payment**



## 9. MJPJAY Scheme

BKL Walawalkar Hospital is listed under the state government scheme “Mahatma Jyotiba Phule Jan Arogya Yojana” to support treatment of the cancer patients in Maharashtra state. At total of 292 cases received the scheme. The details are mentioned in table no.12.

**Table No. 12: Treatment availed by those covered under MJPJAY**

CD_10	Cancer Site	SX	CT	RT	CT + HT	CT + RT	SX + HT	SX + RT	SX + CT	RT + HT	SX+ CT+ HT	SX+ CT+ RT	RT+ CT+ HT	SX+ RT+ CT+ HT	No Rx	Total
C00	Lip	2	0	0	0	2	0	0	0	0	0	2	0	0	0	6
C01-C02	Tongue	5	4	2	0	4	0	0	2	0	0	6	0	0	0	23
C03-C06	Mouth	22	7	3	0	22	0	5	4	0	0	20	0	0	3	86
C10	Other Oropharynx	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2
C12-C13	Hypopharynx	0	0	0	0	3	0	0	0	0	0	0	0	0	1	4
C15	Esophagus	0	5	0	0	6	0	0	0	0	0	0	0	0	0	11
C16	Stomach	0	7	1	0	2	0	0	0	0	0	0	0	0	0	10
C17	Small Intestine	0	1	0	0	0	0	0	1	0	0	0	0	0	0	2
C18	Colon	2	5	0	0	0	0	0	4	0	0	0	0	0	0	11
C19-C20	Rectum	3	5	0	0	2	0	0	2	0	0	0	0	0	0	12
C22	Liver	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2
C23-C24	Gall Bladder	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
C32	Larynx	0	3	0	0	5	0	0	0	0	0	0	0	0	0	8
C33-C34	Lung	0	8	1	0	1	0	0	0	0	0	0	0	0	0	10
C40-C41	Bone	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
C47 & C49	Conn. Soft tissue	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2
C50	Breast	7	7	0	1	4	2	0	6	1	4	4	4	8	3	51
C53	Cervix Uteri	0	0	0	0	5	0	0	0	0	0	0	2	0	0	7
C54	Corpus Uteri	2	0	1	1	0	0	0	0	0	0	0	0	0	0	4
C56	Ovary	1	4	0	0	0	0	0	4	0	3	0	0	0	1	13
C61	Prostate	0	1	0	2	0	0	0	0	0	0	0	0	0	0	3
C64	Kidney	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
C67	Bladder	0	1	0	0	0	0	0	3	0	0	0	0	0	1	5
C70-C72	Brain, NS	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
C82-C86, C96	NHL	0	6	0	0	0	0	0	0	0	0	0	0	0	0	6
C90	Multiple Myeloma	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
C92-C94	Myeloid Leukemia	0	2	0	0	0	0	0	0	0	0	0	0	0	2	4
C95	Leukemia Uns	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
O & U	Other & Unspecified sites	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
<b>Total</b>		<b>47</b>	<b>71</b>	<b>10</b>	<b>4</b>	<b>60</b>	<b>2</b>	<b>5</b>	<b>27</b>	<b>1</b>	<b>7</b>	<b>32</b>	<b>6</b>	<b>8</b>	<b>12</b>	<b>292</b>
<b>Percentage</b>		<b>16.1</b>	<b>24.3</b>	<b>3.4</b>	<b>1.4</b>	<b>20.5</b>	<b>0.7</b>	<b>1.7</b>	<b>9.2</b>	<b>0.3</b>	<b>2.4</b>	<b>11.0</b>	<b>2.1</b>	<b>2.7</b>	<b>4.1</b>	

## 10. Characteristics of cancer patients treated in BKL Walawalkar Hospital

**Table No. 13: Characteristics of cancer patients treated in BKL Walawalkar hospital**

	Total	Incomplete	Complete	Univariate OR	95% CI		p value	Multivariate OR	95% CI		P value
					lower	upper			lower	upper	
<b>Age group</b>	528	287	241								
under 40	61	30	31								
40-49	109	49	60	1.19	0.63	2.22	0.60	1.03	0.51	2.07	0.94
50-59	134	59	75	1.23	0.67	2.26	0.50	1.05	0.53	2.06	0.89
60 and above	224	149	75	0.49	0.27	0.86	0.01*	0.48	0.25	0.90	0.02*
<b>Sex</b>											
Male	249	142	107								
Female	279	145	134	1.23	0.87	1.73	0.24	1.02	0.08	13.25	0.99
<b>Intent of treatment</b>											
Curative	376	189	187								
Palliative	152	98	54	0.56	0.38	0.82	0.00*	0.59	0.37	0.94	0.03*
<b>Type of case</b>											
Old	70	27	43								
New	458	260	198	0.48	0.29	0.80	0.01*	0.35	0.17	0.72	0.00*
<b>Clinical extent</b>											
Localised	24	14	10								
Locoregional	278	142	136	1.34	0.58	3.12	0.50	1.62	0.66	4.01	0.29
Distant metastasis	65	39	26	0.93	0.36	2.42	0.89	1.76	0.60	5.20	0.30
Not applicable/ Treated outside/ Unknown	161	92	69	1.05	0.44	2.50	0.91	1.10	0.37	2.81	0.98
<b>District</b>											
Other districts of Maharashtra	27	19	8								
Raigad	64	33	31	2.23	0.85	5.83	0.10	1.22	0.42	3.52	0.71
Sindhudurg	88	40	48	2.85	1.13	7.20	0.03*	1.82	0.66	5.03	0.25
Ratnagiri	349	195	154	1.88	0.80	4.40	0.15	1.30	0.51	3.33	0.58
<b>Religion</b>											
Hindu	505	273	232								
Muslim	23	14	9	0.76	0.32	1.78	0.52	1.35	0.50	3.65	0.56
<b>Occupation</b>											
Other occupations	20	9	11								
Agricultural work	199	113	86	0.62	0.25	1.57	0.32	0.81	0.28	2.35	0.70
Housewives	276	144	132	0.75	0.30	1.87	0.54	0.83	0.07	10.33	0.89
Not applicable/Unkn	33	21	12	0.47	0.15	1.45	0.19	0.55	0.15	1.96	0.35
<b>Payment mode</b>											
By own	56	44	12								
Other health schemes	172	117	55	1.72	0.84	3.52	0.14	1.72	0.81	3.66	0.16
MPMJAY/ PMJAY	300	126	174	5.06	2.57	9.98	0.00*	4.56	2.20	9.43	0.00*

\*Significant at 95% level

Education, income and marital status variables were omitted from the analysis due to high number of unknown information items.

On conducting univariate and multivariate logistic regression, we found the following observations:

- ✓ Patients of higher age group (60 and above) are 52% less likely to complete their treatment than those under 40 (Odds Ratio (OR) 0.48, 95% Confidence Interval (95% CI) 0.25-0.90,  $p=0.02$ ).
- ✓ Patients who were treated with palliative intent were 41% less likely to complete their treatment (OR 0.59, 95% CI 0.37-0.94,  $p=0.03$ ).
- ✓ Patients who received Mahatma Jyotiba Phule Scheme (MPMJAY) were five times more likely to complete their treatment as compared to those who paid on their own (OR 4.56, 95% CI 2.2-9.43,  $p=0.00$ ).

## 11. Patterns and clinical details of the leading cancer sites.

The pattern and clinical details of mouth, tongue esophagus, lung, colon, rectum, larynx, breast, ovary and cervix uteri cancers seen in BKL Walawalkar hospital are shown in table no.15 to133 and graphical representation for the same is presented in figure no. 8 to 54. The details are given in table no.14. The pattern of cancer in BKL Walawalkar hospital has been compared with Ratnagiri PBCR for the year 2017-2018.

**Table No. 14: Pattern and clinical details of the leading cancer sites**

ICD-10	Cancer site	Table No.	Figure No.
C03-C06	Mouth	15-26	8-12
C01-C02	Tongue	27-38	13-17
C15	Esophagus	39-50	18-22
C33-C34	Lung	51-62	23-27
C18	Colon	63-74	28-32
C19-C20	Rectum	75-86	33-37
C32	Larynx	87-98	38-41
C50	Breast	99-111	42-46
C56	Ovary	112-122	47-50
C53	Cervix uteri	123-133	51-54

### Description of the term used

- **Per-Primum (New cases):** These are the cases that have not been to any other hospital and approach the BKL Walawalkar hospital as their first treatment provider.
- **Post Treatment (Old cases):** These are the cases that were diagnosed and may or may not be treated at the hospitals other than BKL Walawalkar hospital.

## Mouth Cancer

### ICD-10: (C03-C06)

- A total of 127 cases of mouth cancer have been reported [Male: 78 (61.4%); Female: 49 (38.6%)]. Out of 127 cases, 109 (85.8%) cases are new and 18 (14.2%) cases are old.
- The mean age for both male and female patients is 54 and 60 years.
- The majority of reported mouth cancer cases are from Ratnagiri (63.8%), Raigad (18.1%) and Sindhudurg districts (11.8%).
- 74% of the cases have been registered at loco-regional stage.
- In terms of site, cheek mucosa is the most commonly affected site (74%) followed by lower gum (10.2%)
- 89.8 % of the mouth cancer cases have histology of squamous cell carcinoma.
- In terms of grade, 36.2 % of the cases are moderately differentiated.
- Of the 127 cases, 62 (48.8%) cases have completed the treatment at BKL Walawalkar Hospital.
- The intention of treatment is mainly curative (81.9 %) followed by palliative (18.1%).
- CT+RT is the predominant treatment (22%) followed by Surgery (20.5%), Surgery+ CT+RT (17.3 %), CT (15%), RT (4.7%), Surgery+ RT (4.7%) and Surgery+ CT (3.9%).
- Out of 127 cases, 83 (65.4%) patients are lost to follow-up.

**Table No. 15: Mouth cancer cases by type of case**

Type of case	Male	%	Female	%	Total	%
Post Treatment (old)	11	14.1	7	14.3	18	14.2
Pre-Primum (New)	67	85.9	42	85.7	109	85.8
<b>Total</b>	<b>78</b>	<b>100.0</b>	<b>49</b>	<b>100.0</b>	<b>127</b>	<b>100.0</b>

**Table No. 16: Mouth cancer cases profile in Ratnagiri**

HBCR vs PBCR (Mouth Cancer)	HBCR Ratnagiri 2022		PBCR Ratnagiri 2017-18	
	Male	Female	Male	Female
Rank	1	2	1	2
Number & % of total cases	78 (31.3%)	49 (17.6%)	197 (23%)	108 (10.1%)
Age-adjusted incidence rates per 100,000			11.3	5.2

**Table No. 17: Age distribution of mouth cancer cases**

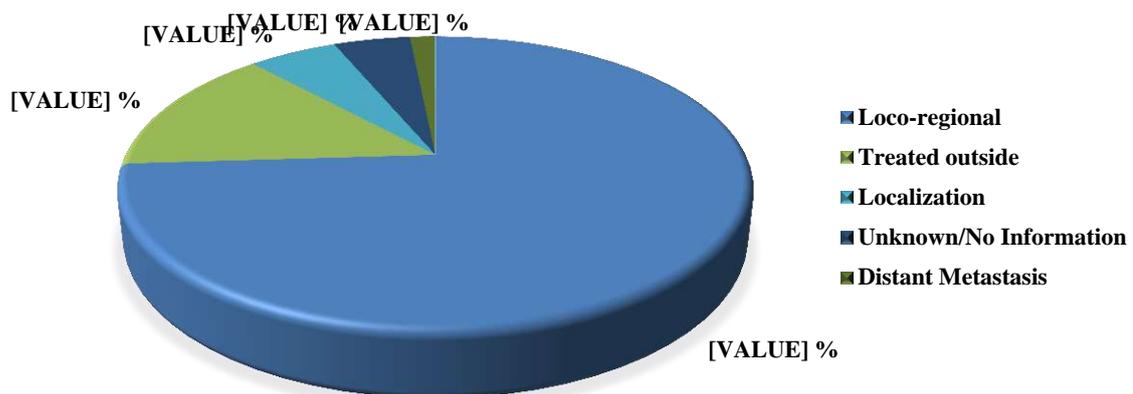
Age Group	Male	%	Female	%	Total	%
25-29	1	1.3	1	2.0	2	1.6
30-34	3	3.8	1	2.0	4	3.1
35-39	5	6.4	3	6.1	8	6.3
40-44	6	7.7	2	4.1	8	6.3
45-49	14	17.9	5	10.2	19	15.0
50-54	11	14.1	5	10.2	16	12.6
55-59	13	16.7	5	10.2	18	14.2
60-64	9	11.5	4	8.2	13	10.2
65-69	8	10.3	10	20.4	18	14.2
70-74	2	2.6	7	14.3	9	7.1
75+	6	7.7	6	12.2	12	9.4
<b>Total</b>	<b>78</b>	<b>100.0</b>	<b>49</b>	<b>100.0</b>	<b>127</b>	<b>100.0</b>
<b>Mean Age</b>	<b>Male: 54 years</b>		<b>Female: 60 years</b>			

**Table No. 18: Mouth cancer cases by district**

Districts	Male	%	Female	%	Total	%
Ratnagiri	52	66.7	29	59.2	81	63.8
Raigad	12	15.4	11	22.4	23	18.1
Sindhudurg	9	11.5	6	12.2	15	11.8
Mumbai City	2	2.6	0	0.0	2	1.6
Thane	2	2.6	3	6.1	5	3.9
Osmanabad	1	1.3	0	0.0	1	0.8
<b>Total</b>	<b>78</b>	<b>100.0</b>	<b>49</b>	<b>100.0</b>	<b>127</b>	<b>100.0</b>

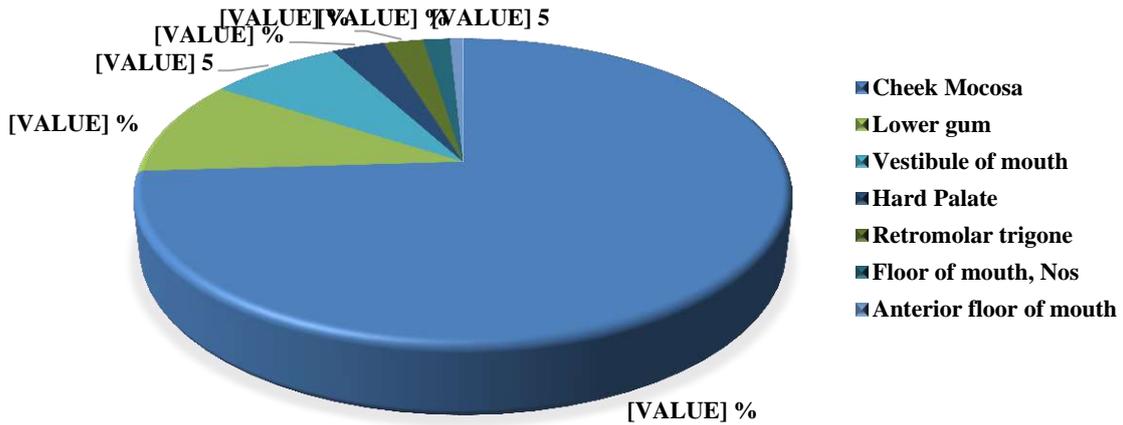
**Table No. 19: Mouth cancer cases by clinical extent of disease**

Clinical Extent	Male	%	Female	%	Total	%
Localization	5	6.4	2	4.1	7	5.5
Loco-regional	57	73.1	37	75.5	94	74.0
Distant Metastasis	2	2.6	0	0.0	2	1.6
Treated outside	11	14.1	7	14.3	18	14.2
Unknown/No Information	3	3.8	3	6.1	6	4.7
<b>Total</b>	<b>78</b>	<b>100.0</b>	<b>49</b>	<b>100.0</b>	<b>127</b>	<b>100.0</b>

**Figure No. 8: Mouth cancer cases by clinical extent of disease****Table No. 20: Mouth cancer cases by site**

ICD-10	Site	Male	%	Female	%	Total	%
C03.1	Lower gum	7	9.0	6	12.2	13	10.2
C04.9	Anterior floor of mouth	1	1.3	0	0.0	1	0.8
C05.0	Floor of mouth, Nos	1	1.3	1	2.0	2	1.6
C05.1	Hard Palate	4	5.1	0	0.0	4	3.1
C06.0	Cheek Mucosa	55	70.5	39	79.6	94	74.0
C06.1	Vestibule of mouth	7	9.0	3	6.1	10	7.9
C06.2	Retromolar trigone	3	3.8	0	0.0	3	2.4
<b>Total</b>		<b>78</b>	<b>100.0</b>	<b>49</b>	<b>100.0</b>	<b>127</b>	<b>100.0</b>

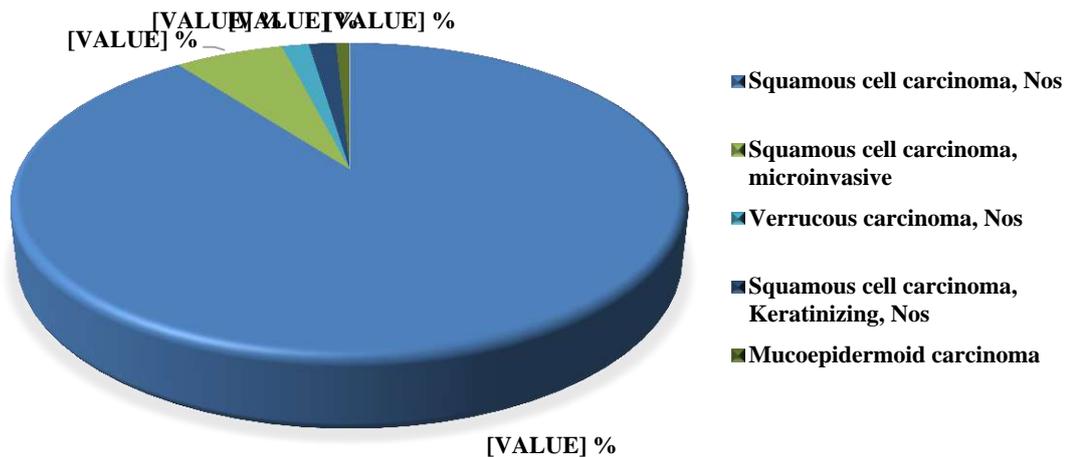
**Figure No. 9: Mouth cancer cases by site**



**Table No. 21: Mouth cancer cases by histology**

ICD-O3	Histology	Male	%	Female	%	Total	%
8051	Verrucous carcinoma, Nos	1	1.3	1	2.0	2	1.6
8070	Squamous cell carcinoma, Nos	72	92.3	42	85.7	114	89.8
8071	Squamous cell carcinoma, Keratinizing, Nos	1	1.3	1	2.0	2	1.6
8076	Squamous cell carcinoma, microinvasive	4	5.1	4	8.2	8	6.3
8430	Mucoepidermoid carcinoma	0	0.0	1	2.0	1	0.8
<b>Total</b>		<b>78</b>	<b>100.0</b>	<b>49</b>	<b>100.0</b>	<b>127</b>	<b>100.0</b>

**Figure No. 10: Mouth cancer cases by histology**



**Table No. 22: Mouth cancer cases by grade**

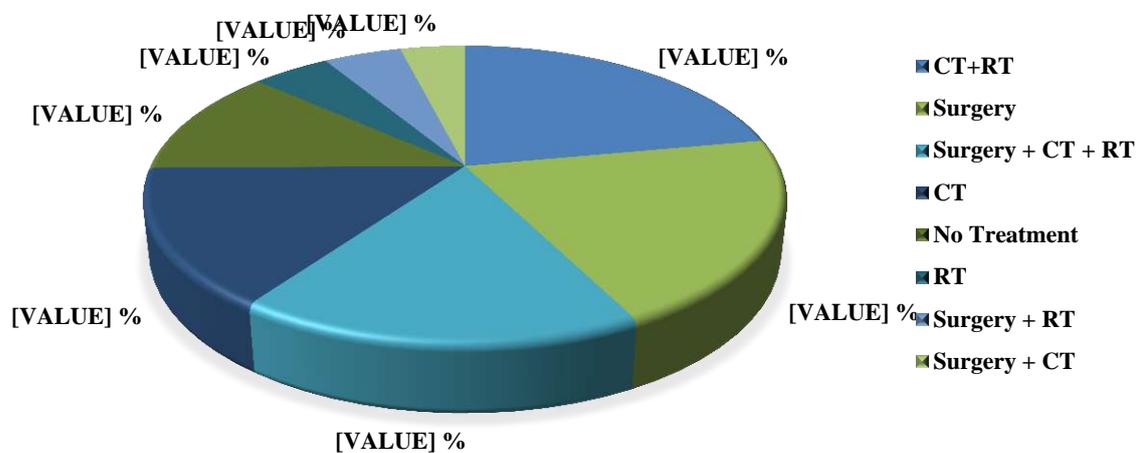
Grade	Male	%	Female	%	Total	%
Grade1: Well differentiated	22	28.2	17	34.7	39	30.7
Grade2: Moderately differentiated	29	37.2	17	34.7	46	36.2
Grade3: Poorly differentiated	26	33.3	15	30.6	41	32.3
Grade not mentioned, not stated/not applicable	1	1.3	0	0.0	1	0.8
<b>Total</b>	<b>78</b>	<b>100.0</b>	<b>49</b>	<b>100.0</b>	<b>127</b>	<b>100.0</b>

**Table No. 23: Mouth cancer cases by intention of treatment**

Intent of Treatment	Male	%	Female	%	Total	%
Curative	62	79.5	42	85.7	104	81.9
Palliative	16	20.5	7	14.3	23	18.1
<b>Total</b>	<b>78</b>	<b>100.0</b>	<b>49</b>	<b>100.0</b>	<b>127</b>	<b>100.0</b>

**Table No. 24: Mouth cancer cases by type of treatment availed**

Treatment	Male	%	Female	%	Total	%
Surgery	11	14.1	15	30.6	26	20.5
CT	11	14.1	8	16.3	19	15.0
RT	4	5.1	2	4.1	6	4.7
Surgery + CT	3	3.8	2	4.1	5	3.9
Surgery + RT	4	5.1	2	4.1	6	4.7
CT+RT	19	24.4	9	18.4	28	22.0
Surgery + CT + RT	16	20.5	6	12.2	22	17.3
No Treatment	10	12.8	5	10.2	15	11.8
<b>Total</b>	<b>78</b>	<b>100.0</b>	<b>49</b>	<b>100.0</b>	<b>127</b>	<b>100.0</b>

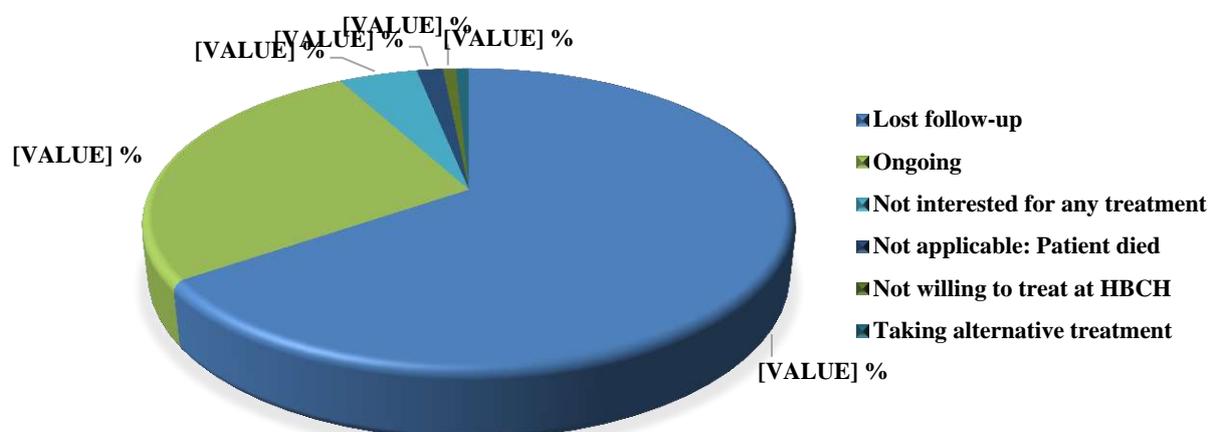
**Figure No. 11: Mouth cancer cases by type of treatment availed**

**Table No. 25: Treatment status of mouth cancer cases**

Treatment Status	Male	%	Female	%	Total	%
Complete	38	48.7	24	49.0	62	48.8
Incomplete	30	38.5	20	40.8	50	39.4
No treatment	10	12.8	5	10.2	15	11.8
<b>Total</b>	<b>78</b>	<b>100.0</b>	<b>49</b>	<b>100.0</b>	<b>127</b>	<b>100.0</b>

**Table No. 26: Follow-up status of mouth cancer cases**

Follow-up Status	Male	%	Female	%	Total	%
Not interested in any treatment	4	5.1	2	4.1	6	4.7
Not willing to treat at HBCH	1	1.3	0	0.0	1	0.8
Taking alternative treatment	1	1.3	0	0.0	1	0.8
Lost follow-up	49	62.8	34	69.4	83	65.4
Ongoing	22	28.2	12	24.5	34	26.8
Not applicable: Patient died	1	1.3	1	2.0	2	1.6
<b>Total</b>	<b>78</b>	<b>100.0</b>	<b>49</b>	<b>100.0</b>	<b>127</b>	<b>100.0</b>

**Figure No. 12: Follow-up status of mouth cancer cases**

## Tongue Cancer

### ICD-10: (C01-C02)

- A total of 34 cases of tongue cancer have been reported [Male: 25 (73.6%); Female: 9 (26.4%)]. Out of 34 cases, 33 (97.1%) cases are new and 1 (2.9%) cases are old.
- The mean age for both male and female patients is 52 and 54 years.
- The majority of reported tongue cancer cases are from Ratnagiri (64.7%), Sindhudurg (20.6%) and Raigad districts (8.8%).
- 82.4% of the cases have been registered at loco-regional stage.
- In terms of site, border of tongue is the most commonly affected site (76.5%) followed by base of tongue (20.6%)
- 94.1 % of the tongue cancer cases have histology of squamous cell carcinoma.
- In terms of Grade, 38.2 % of the cases are moderately differentiated.
- Of the 34 cases, 19 (55.9%) cases have completed the treatment at BKL Walawalkar Hospital.
- The intention of treatment is mainly curative (85.3 %) followed by palliative (14.7%).
- Surgery + CT+RT is the predominant treatment (23.5%) followed by CT + RT (20.6%), Surgery (17.6 %), CT (17.6%), RT (8.8%), Surgery+ CT (5.9%).
- Out of 34 cases, 25 (73.5%) patients are lost to follow-up.

**Table No. 27: Tongue cancer cases by type of case**

Type of case	Male	%	Female	%	Total	%
Post Treatment (old)	1	4.0	0	0.0	1	2.9
Pre-Primum (New)	24	96.0	9	100.0	33	97.1
<b>Total</b>	<b>25</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>	<b>34</b>	<b>100.0</b>

**Table No. 28: Tongue cancer cases profile in Ratnagiri**

HBCR vs PBCR (Tongue Cancer)	HBCR Ratnagiri 2022		PBCR Ratnagiri 2017-18	
	Male	Female	Male	Female
Rank	2	8	3	8
Number & % of total cases	25 (10%)	9 (3.2%)	54 (6.3 %)	31 (2.9 %)
Age-adjusted incidence rates per 100,000			3.1	1.4

**Table No. 29: Age distribution of tongue cancer cases**

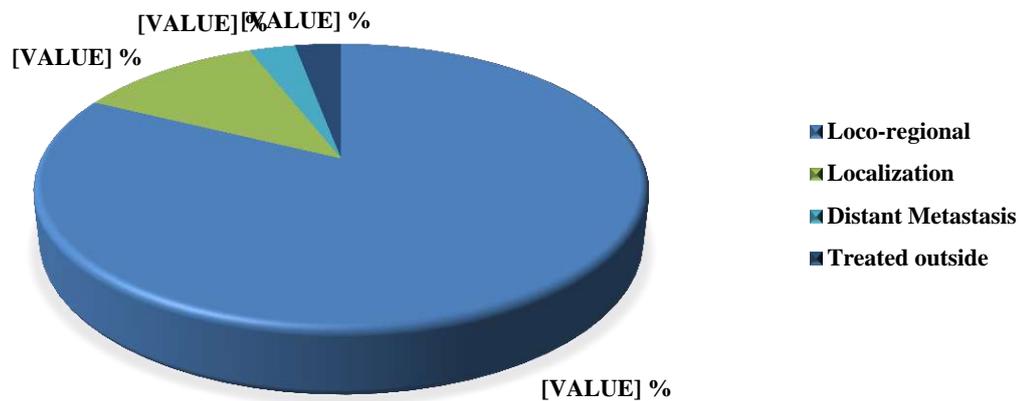
Age Group	Male	%	Female	%	Total	%
30-34	2	8.0	1	11.1	3	8.8
35-39	1	4.0	1	11.1	2	5.9
40-44	1	4.0	0	0.0	1	2.9
45-49	7	28.0	2	22.2	9	26.5
50-54	4	16.0	1	11.1	5	14.7
55-59	2	8.0	0	0.0	2	5.9
60-64	5	20.0	3	33.3	8	23.5
65-69	3	12.0	0	0.0	3	8.8
75+	0	0.0	1	11.1	1	2.9
<b>Total</b>	<b>25</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>	<b>34</b>	<b>100.0</b>
<b>Mean age</b>	<b>Male: 52 years</b>		<b>Female: 54 years</b>			

**Table No. 30: Tongue cancer cases by district**

Districts	Male	%	Female	%	Total	%
Raigad	3	12.0	0	0.0	3	8.8
Ratnagiri	14	56.0	8	88.9	22	64.7
Sangli	1	4.0	0	0.0	1	2.9
Sindhudurg	6	24.0	1	11.1	7	20.6
Thane	1	4.0	0	0.0	1	2.9
<b>Total</b>	<b>25</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>	<b>34</b>	<b>100.0</b>

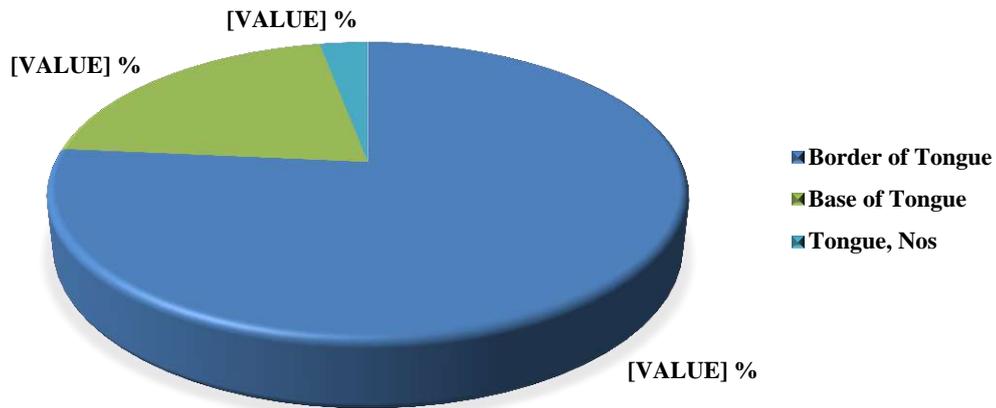
**Table No. 31: Tongue cancer cases by clinical extent of disease**

Clinical Extent	Male	%	Female	%	Total	%
Localization	4	16.0	0	0.0	4	11.8
Loco-regional	20	80.0	8	88.9	28	82.4
Distant Metastasis	0	0.0	1	11.1	1	2.9
Treated outside	1	4.0	0	0.0	1	2.9
<b>Total</b>	<b>25</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>	<b>34</b>	<b>100.0</b>

**Figure No. 13: Tongue cancer cases by clinical extent of disease****Table No. 32: Tongue cancer cases by site**

ICD-10	Site	Male	%	Female	%	Total	%
C01.9	Base of Tongue	5	20.0	2	22.2	7	20.6
C02.1	Border of Tongue	19	76.0	7	77.8	26	76.5
C02.9	Tongue, Nos	1	4.0	0	0.0	1	2.9
<b>Total</b>		<b>25</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>	<b>34</b>	<b>100.0</b>

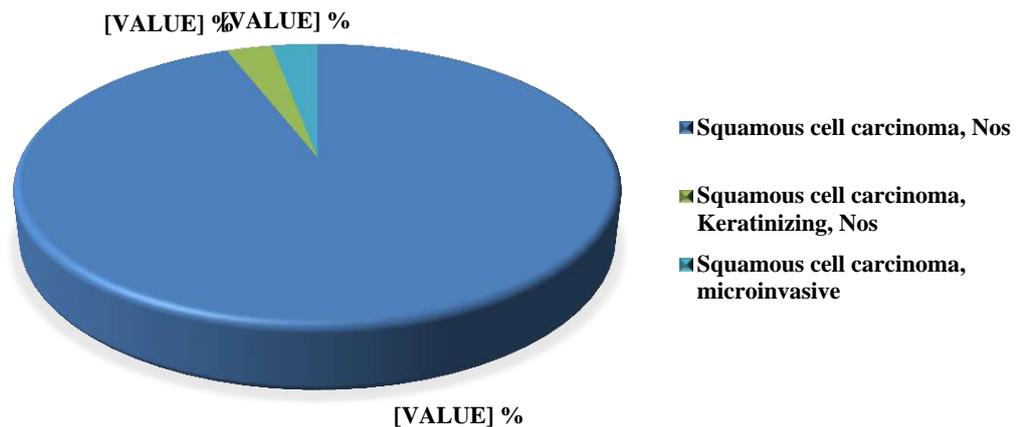
**Figure No. 14: Tongue cancer cases by site**



**Table No. 33: Tongue cancer cases by histology**

ICD-O3	Histology	Male	%	Female	%	Total	%
8070	Squamous cell carcinoma, Nos	23	92.0	9	100.0	32	94.1
8071	Squamous cell carcinoma, Keratinizing, Nos	1	4.0	0	0.0	1	2.9
8076	Squamous cell carcinoma, microinvasive	1	4.0	0	0.0	1	2.9
<b>Total</b>		<b>25</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>	<b>34</b>	<b>100.0</b>

**Figure No. 15: Tongue cancer cases by histology**



**Table No. 34: Tongue cancer cases by grade**

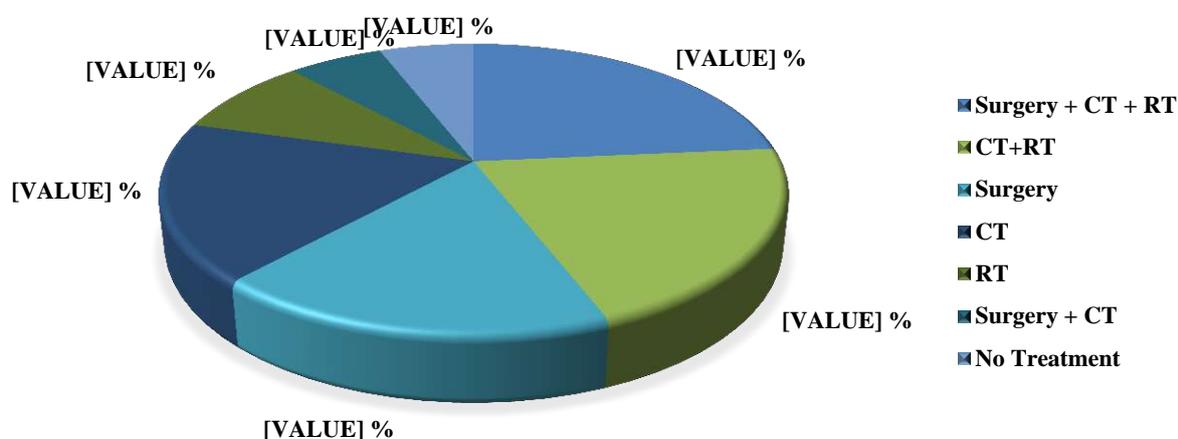
Grade	Male	%	Female	%	Total	%
Grade1: Well differentiated	8	32.0	4	44.4	12	35.3
Grade2: Moderately differentiated	8	32.0	5	55.6	13	38.2
Grade3: Poorly differentiated	9	36.0	0	0.0	9	26.5
<b>Total</b>	<b>25</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>	<b>34</b>	<b>100.0</b>

**Table No. 35: Tongue cancer cases by intention of treatment**

Intent of Treatment	Male	%	Female	%	Total	%
Curative	22	88.0	7	77.8	29	85.3
Palliative	3	12.0	2	22.2	5	14.7
<b>Total</b>	<b>25</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>	<b>34</b>	<b>100.0</b>

**Table No. 36: Tongue cancer cases by type of treatment availed**

Treatment	Male	%	Female	%	Total	%
Surgery	5	20.0	1	11.1	6	17.6
CT	5	20.0	1	11.1	6	17.6
RT	2	8.0	1	11.1	3	8.8
Surgery + CT	1	4.0	1	11.1	2	5.9
CT+RT	5	20.0	2	22.2	7	20.6
Surgery + CT + RT	6	24.0	2	22.2	8	23.5
No Treatment	1	4.0	1	11.1	2	5.9
<b>Total</b>	<b>25</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>	<b>34</b>	<b>100.0</b>

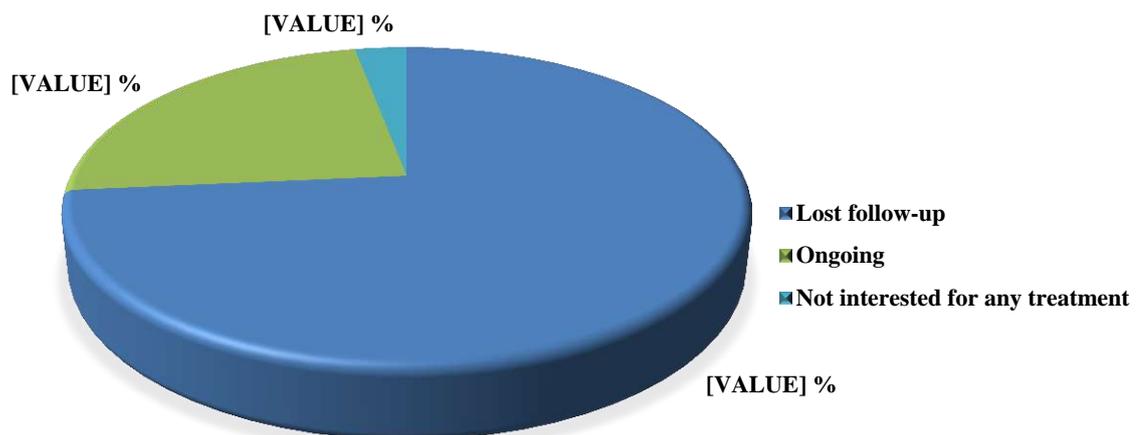
**Figure No. 16: Tongue cancer cases by type of treatment availed**

**Table No. 37: Treatment status of tongue cancer cases**

Treatment Status	Male	%	Female	%	Total	%
Complete	14	56.0	5	55.6	19	55.9
Incomplete	10	40.0	3	33.3	13	38.2
No treatment	1	4.0	1	11.1	2	5.9
<b>Total</b>	<b>25</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>	<b>34</b>	<b>100.0</b>

**Table No. 38: Follow-up status of Tongue cancer cases**

Follow-up Status	Male	%	Female	%	Total	%
Not interested in any treatment	0	0.0	1	11.1	1	2.9
Lost follow-up	19	76.0	6	66.7	25	73.5
Ongoing	6	24.0	2	22.2	8	23.5
<b>Total</b>	<b>25</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>	<b>34</b>	<b>100.0</b>

**Figure No. 17: Follow-up status of Tongue cancer cases**

## Esophagus Cancer ICD-10: (C15)

- A total of 26 cases of esophagus cancer have been reported [Male: 8 (30.8%); Female: 18 (69.2%)]. Out of 26 cases, all 26 (100%) cases are new.
- The mean age for both male and female patients is 63 and 56 years.
- The majority of reported esophagus cancer cases are from Ratnagiri (53.8%), Sindhudurg (30.8%) and Raigad districts (15.4%).
- 53.8% of the cases have been registered at loco-regional stage followed by distant metastasis 15.4%.
- In terms of site, lower third of esophagus is the most commonly affected site (34.6%) followed by esophagus, NOS (30.8%)
- 92.3 % of the esophagus cancer cases have histology of squamous cell carcinoma.
- In terms of Grade, 57.7 % of the cases are poorly differentiated.
- Of the 26 cases, 9 (34.6%) cases have completed the treatment at BKL Walawalkar Hospital.
- The intention of treatment is mainly curative (88.5 %) followed by palliative (11.5%).
- CT+RT is the predominant treatment (42.3%) followed by CT (34.6%), Surgery+ CT (3.8%).
- Out of 26 cases, 18 (69.2%) patients are lost to follow-up.

**Table No. 39: Esophagus cancer cases by type of case**

Type of case	Male	%	Female	%	Total	%
Post Treatment (old)	0	0.0	0	0.0	0	0.0
Pre-Primum (New)	8	100.0	18	100.0	26	100.0
<b>Total</b>	<b>8</b>	<b>100.0</b>	<b>18</b>	<b>100.0</b>	<b>26</b>	<b>100.0</b>

**Table No. 40: Esophagus cancer cases profile in Ratnagiri**

HBCR vs PBCR (Esophagus Cancer)	HBCR Ratnagiri 2022		PBCR Ratnagiri 2017-18	
	Male	Female	Male	Female
Rank	10	4	2	5
Number & % of total cases	8 (3.2%)	18 (6.5%)	55(6.4%)	55(5.2%)
Age-adjusted incidence rates per 100,000			3.1	2.5

**Table No. 41: Age distribution of esophagus cancer cases**

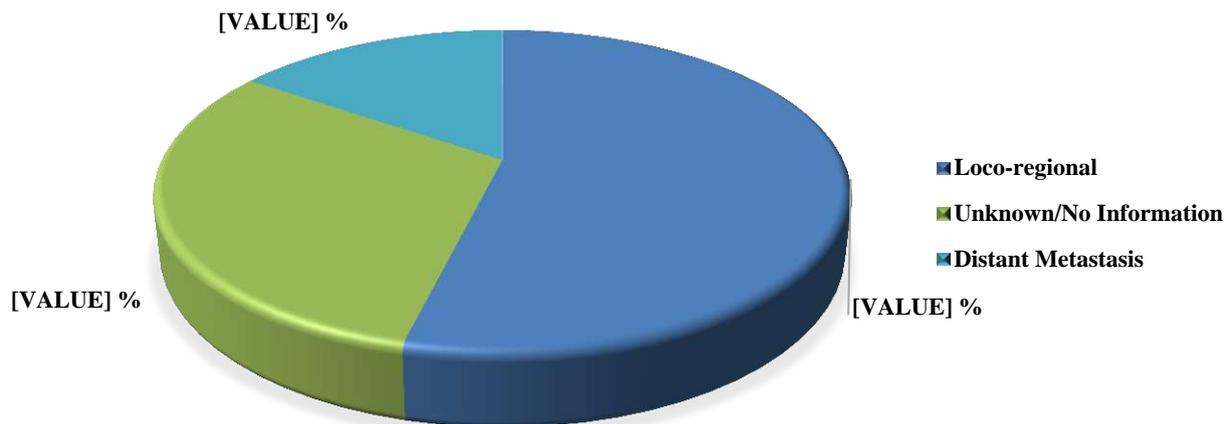
Age Group	Male	%	Female	%	Total	%
30-34	0	0.0	2	11.1	2	7.7
40-44	1	12.5	0	0.0	1	3.8
45-49	0	0.0	3	16.7	3	11.5
50-54	0	0.0	3	16.7	3	11.5
55-59	2	25.0	3	16.7	5	19.2
60-64	0	0.0	2	11.1	2	7.7
65-69	3	37.5	1	5.6	4	15.4
70-74	1	12.5	3	16.7	4	15.4
75+	1	12.5	1	5.6	2	7.7
<b>Total</b>	<b>8</b>	<b>100.0</b>	<b>18</b>	<b>100.0</b>	<b>26</b>	<b>100.0</b>
<b>Mean age</b>	<b>Male: 63 years</b>		<b>Female: 56 years</b>			

**Table No. 42: Esophagus cancer cases by district**

Districts	Male	%	Female	%	Total	%
Raigad	1	12.5	3	16.7	4	15.4
Ratnagiri	4	50.0	10	55.6	14	53.8
Sindhudurg	3	37.5	5	27.8	8	30.8
<b>Total</b>	<b>8</b>	<b>100.0</b>	<b>18</b>	<b>100.0</b>	<b>26</b>	<b>100.0</b>

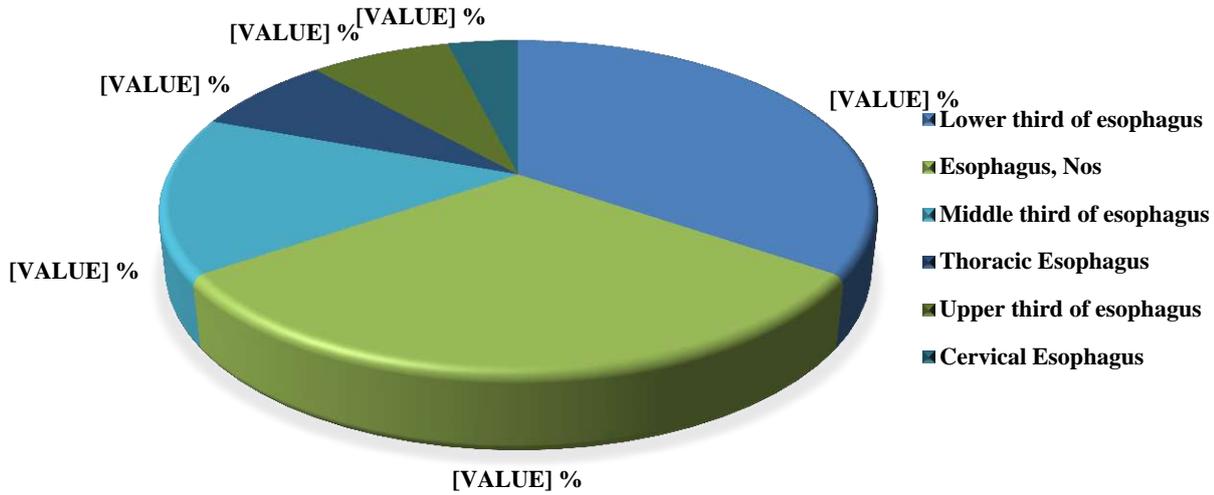
**Table No. 43: Esophagus cancer cases by clinical extent of disease**

Clinical Extent	Male	%	Female	%	Total	%
Loco-regional	5	62.5	9	50.0	14	53.8
Distant Metastasis	1	12.5	3	16.7	4	15.4
Unknown/No Information	2	25.0	6	33.3	8	30.8
<b>Total</b>	<b>8</b>	<b>100.0</b>	<b>18</b>	<b>100.0</b>	<b>26</b>	<b>100.0</b>

**Figure No. 18: Esophagus cancer cases by clinical extent of disease****Table No. 44: Esophagus cancer cases by site**

ICD-10	Site	Male	%	Female	%	Total	%
C15.0	Cervical Esophagus	0	0.0	1	5.6	1	3.8
C15.1	Thoracic Esophagus	1	12.5	1	5.6	2	7.7
C15.3	Upper third of esophagus	0	0.0	2	11.1	2	7.7
C15.4	Middle third of esophagus	1	12.5	3	16.7	4	15.4
C15.5	Lower third of esophagus	5	62.5	4	22.2	9	34.6
C15.9	Esophagus, Nos	1	12.5	7	38.9	8	30.8
<b>Total</b>		<b>8</b>	<b>100.0</b>	<b>18</b>	<b>100.0</b>	<b>26</b>	<b>100.0</b>

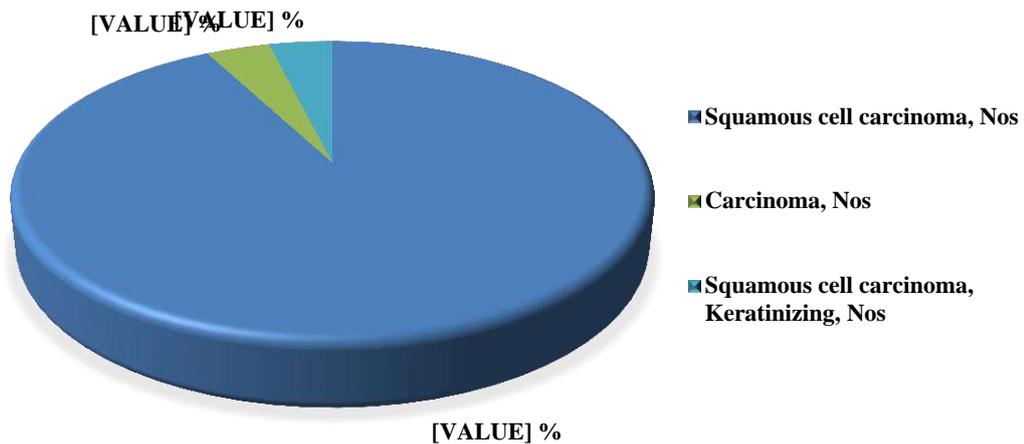
**Figure No. 19: Esophagus cancer cases by site**



**Table No. 45: Esophagus cancer cases by histology**

ICD-O3	Histology	Male	%	Female	%	Total	%
8010	Carcinoma, Nos	0	0.0	1	5.6	1	3.8
8070	Squamous cell carcinoma, Nos	8	100.0	16	88.9	24	92.3
8071	Squamous cell carcinoma, Keratinizing, Nos	0	0.0	1	5.6	1	3.8
<b>Total</b>		<b>8</b>	<b>100.0</b>	<b>18</b>	<b>100.0</b>	<b>26</b>	<b>100.0</b>

**Figure No. 20: Esophagus cancer cases by histology**



**Table No. 46: Esophagus cancer cases by grade**

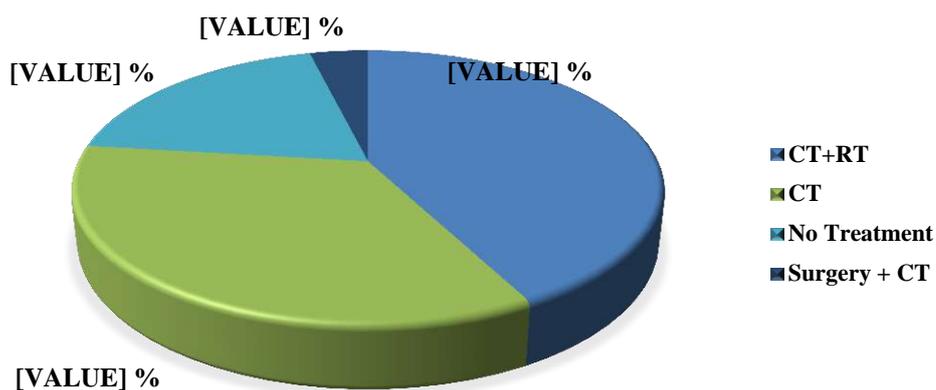
Grade	Male	%	Female	%	Total	%
Grade1: Well differentiated	1	12.5	0	0.0	1	3.8
Grade2: Moderately differentiated	1	12.5	7	38.9	8	30.8
Grade3: Poorly differentiated	5	62.5	10	55.6	15	57.7
Grade not mentioned, not stated or not applicable	1	12.5	1	5.6	2	7.7
<b>Total</b>	<b>8</b>	<b>100</b>	<b>18</b>	<b>100.0</b>	<b>26</b>	<b>100.0</b>

**Table No. 47: Esophagus cancer cases by intention of treatment**

Intent of Treatment	Male	%	Female	%	Total	%
Curative	7	87.5	16	88.9	23	88.5
Palliative	1	12.5	2	11.1	3	11.5
<b>Total</b>	<b>8</b>	<b>100</b>	<b>18</b>	<b>100.0</b>	<b>26</b>	<b>100.0</b>

**Table No. 48: Esophagus cancer cases by type of treatment availed**

Treatment	Male	%	Female	%	Total	%
CT	1	12.5	8	44.4	9	34.6
CT+RT	4	50.0	7	38.9	11	42.3
Surgery + CT	1	12.5	0	0.0	1	3.8
No Treatment	2	25.0	3	16.7	5	19.2
<b>Total</b>	<b>8</b>	<b>100.0</b>	<b>18</b>	<b>100.0</b>	<b>26</b>	<b>100.0</b>

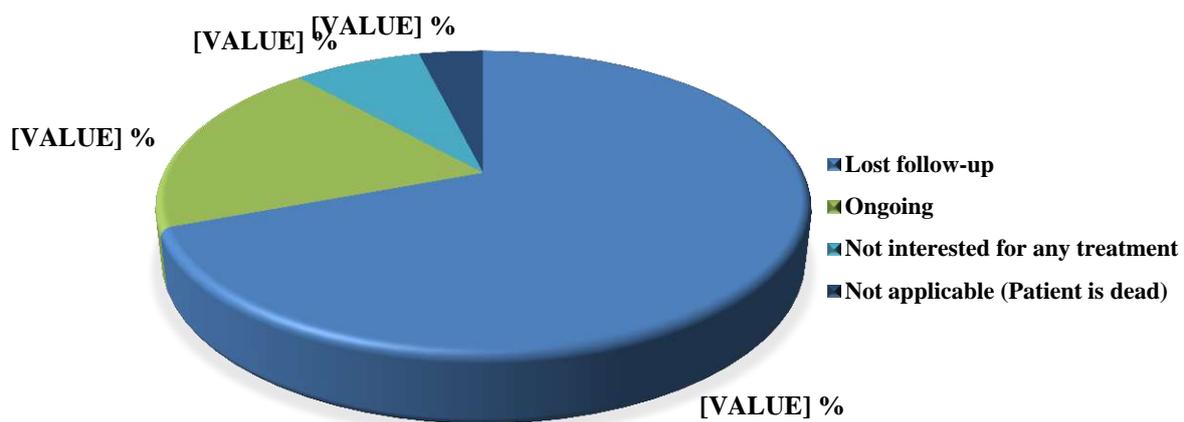
**Figure No. 21: Esophagus cancer cases by type of treatment availed**

**Table No. 49: Treatment status of esophagus cancer cases**

Treatment Status	Male	%	Female	%	Total	%
Complete	3	37.5	6	33.3	9	34.6
Incomplete	3	37.5	9	50.0	12	46.2
No treatment	2	25.0	3	16.7	5	19.2
<b>Total</b>	<b>8</b>	<b>100.0</b>	<b>18</b>	<b>100.0</b>	<b>26</b>	<b>100.0</b>

**Table No. 50: Follow-up status of esophagus cancer cases**

Follow-up Status	Male	%	Female	%	Total	%
Not interested in any treatment	0	0.0	2	11.1	2	7.7
Lost follow-up	7	87.5	11	61.1	18	69.2
Ongoing	1	12.5	4	22.2	5	19.2
Not applicable (Patient is dead)	0	0.0	1	5.6	1	3.8
<b>Total</b>	<b>8</b>	<b>100.0</b>	<b>18</b>	<b>100.0</b>	<b>26</b>	<b>100.0</b>

**Figure No. 22: Follow-up status of esophagus cancer cases**

## Lung Cancer ICD-10: (C33-34)

- A total of 26 cases of lung cancer have been reported [Male: 15 (57.7%); Female: 11 (42.3%)]. Out of 26 cases, all 23 (88.5%) cases are new and 3 (11.5%) are old.
- The mean age for both male and female patients is 61 and 64 years.
- The majority of reported lung cancer cases are from Ratnagiri (80.8%), Sindhudurg (7.7%) and Raigad districts (7.7%).
- 38.5% of the cases have been registered at loco-regional stage followed by distant metastasis 26.9%.
- In terms of site, lung Nos is the most commonly affected site (57.7%) followed by upper lobe lung (26.9%)
- 80.8 % of the lung cancer cases have histology of adenocarcinoma.
- In terms of Grade, 50 % of the cases are poorly differentiated.
- Of the 26 cases, 6 (23.1%) cases have completed the treatment at BKL Walawalkar Hospital.
- The intention of treatment is mainly palliative (88.5 %) followed by curative (11.5%).
- CT is the predominant treatment (50%) followed by CT + RT (7.7%), RT (3.8%).
- Out of 26 cases, 15 (57.7%) patients are lost to follow-up.

**Table No. 51: Lung cancer cases by type of case**

Type of case	Male	%	Female	%	Total	%
Post Treatment (old)	1	6.7	2	18.2	3	11.5
Pre-Primum (New)	14	93.3	9	81.8	23	88.5
<b>Total</b>	<b>15</b>	<b>100.0</b>	<b>11</b>	<b>100.0</b>	<b>26</b>	<b>100.0</b>

**Table No. 52: Lung cancer cases profile in Ratnagiri**

HBCR vs PBCR (Lung cancer)	HBCR Ratnagiri 2022		PBCR Ratnagiri 2017-18	
	Male	Female	Male	Female
Rank	3	6	4	7
Number & % of total cases	15 (6%)	11 (3.9%)	49 (5.7%)	31 (2.9%)
Age-adjusted incidence rates per 100,000			2.8	1.5

**Table No. 53: Age distribution of lung cancer cases**

Age Group	Male	%	Female	%	Total	%
35-39	1	6.7	0	0.0	1	3.8
45-49	1	6.7	1	9.1	2	7.7
50-54	2	13.3	1	9.1	3	11.5
55-59	1	6.7	1	9.1	2	7.7
60-64	4	26.7	3	27.3	7	26.9
65-69	2	13.3	1	9.1	3	11.5
70-74	3	20.0	2	18.2	5	19.2
75+	1	6.7	2	18.2	3	11.5
<b>Total</b>	<b>15</b>	<b>100.0</b>	<b>11</b>	<b>100.0</b>	<b>26</b>	<b>100.0</b>
<b>Mean age</b>	<b>Male: 61 years</b>		<b>Female: 64 years</b>			

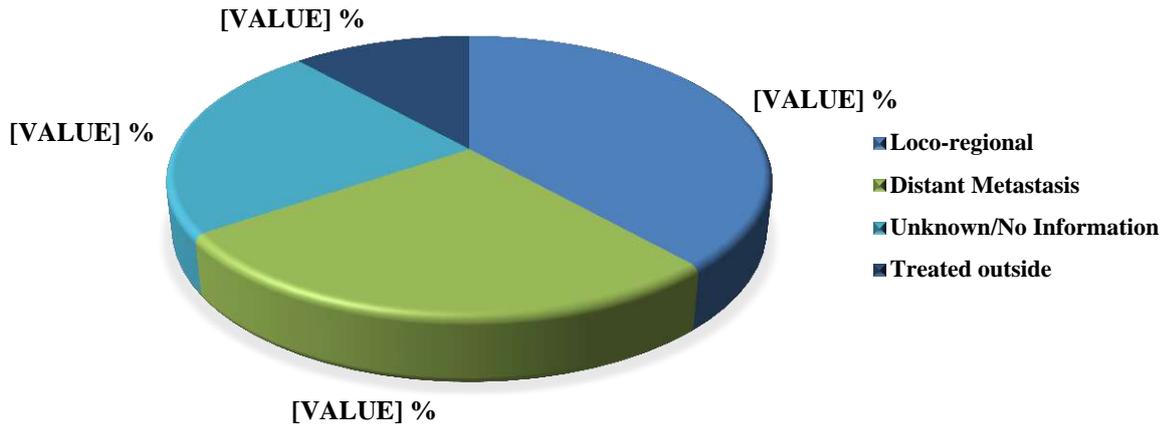
**Table No. 54: Lung cancer cases by district**

Districts	Male	%	Female	%	Total	%
Kolhapur	1	6.7	0	0.0	1	3.8
Raigad	0	0.0	2	18.2	2	7.7
Ratnagiri	13	86.7	8	72.7	21	80.8
Sindhudurg	1	6.7	1	9.1	2	7.7
<b>Total</b>	<b>15</b>	<b>100.0</b>	<b>11</b>	<b>100.0</b>	<b>26</b>	<b>100.0</b>

**Table No. 55: Lung cancer cases by clinical extent of disease**

Clinical Extent	Male	%	Female	%	Total	%
Loco-regional	5	33.3	5	45.5	10	38.5
Distant Metastasis	6	40.0	1	9.1	7	26.9
Treated outside	1	6.7	2	18.2	3	11.5
Unknown/No Information	3	20.0	3	27.3	6	23.1
<b>Total</b>	<b>15</b>	<b>100.0</b>	<b>11</b>	<b>100.0</b>	<b>26</b>	<b>100.0</b>

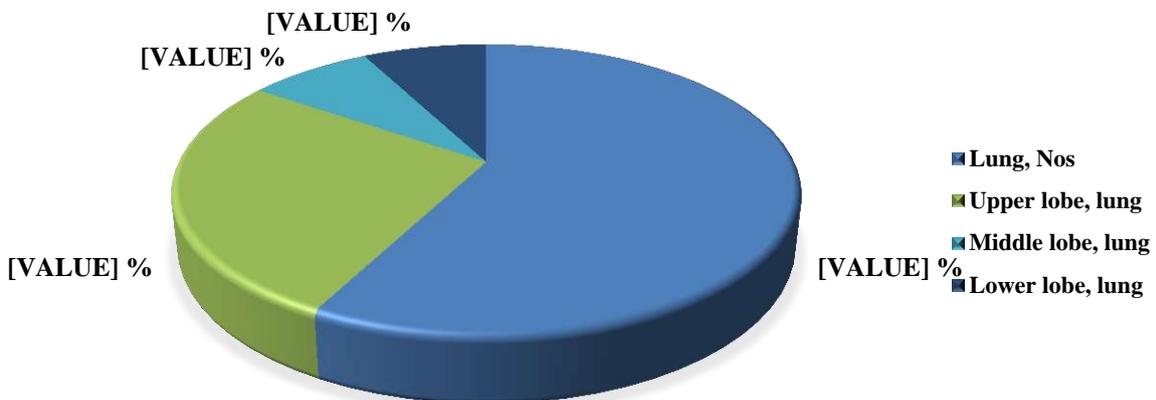
**Figure No. 23: Lung cancer cases by clinical extent of disease**



**Table No. 56: Lung cancer cases by site**

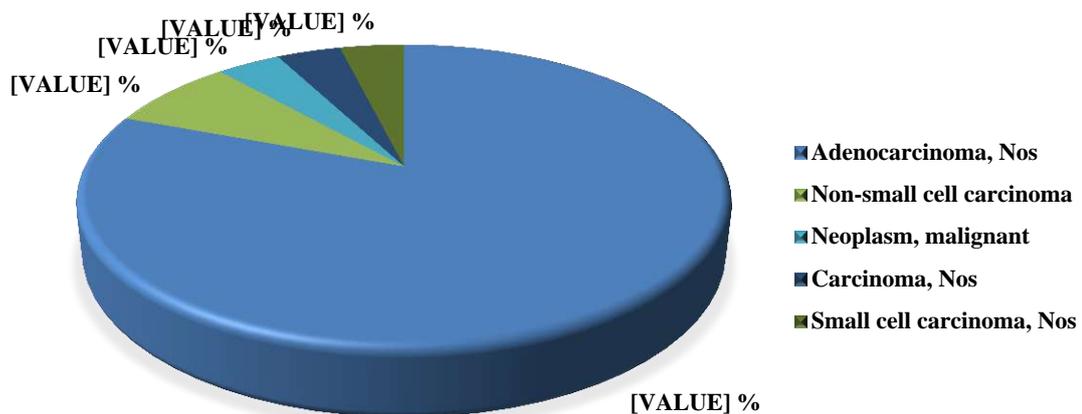
ICD-10	Site	Male	%	Female	%	Total	%
C34.1	Upper lobe, lung	4	26.7	3	27.3	7	26.9
C34.2	Middle lobe, lung	2	13.3	0	0.0	2	7.7
C34.3	Lower lobe, lung	1	6.7	1	9.1	2	7.7
C34.9	Lung, Nos	8	53.3	7	63.6	15	57.7
<b>Total</b>		<b>15</b>	<b>100.0</b>	<b>11</b>	<b>100.0</b>	<b>26</b>	<b>100.0</b>

**Figure No. 24: Lung cancer cases by site**



**Table No. 57: Lung cancer cases by histology**

ICD-O3	Histology	Male	%	Female	%	Total	%
8000	Neoplasm, malignant	0	0.0	1	9.1	1	3.8
8010	Carcinoma, Nos	1	6.7	0	0.0	1	3.8
8041	Small cell carcinoma, Nos	1	6.7	0	0.0	1	3.8
8046	Non-small cell carcinoma	0	0.0	2	18.2	2	7.7
8140	Adenocarcinoma, Nos	13	86.7	8	72.7	21	80.8
<b>Total</b>		<b>15</b>	<b>100.0</b>	<b>11</b>	<b>100.0</b>	<b>26</b>	<b>100.0</b>

**Figure No. 25: Lung cancer cases by histology****Table No. 58: Lung cancer cases by grade**

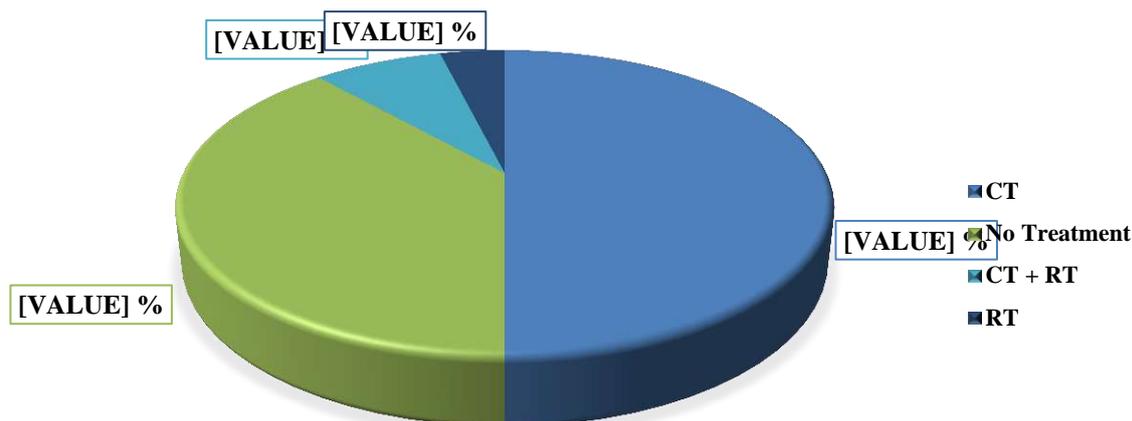
Grade	Male	%	Female	%	Total	%
Grade1: Well differentiated	1	6.7	0	0.0	1	3.8
Grade2: Moderately differentiated	2	13.3	2	18.2	4	15.4
Grade3: Poorly differentiated	9	60.0	4	36.4	13	50.0
Grade4: Undifferentiated, anaplastic	0	0.0	1	9.1	1	3.8
Grade not mentioned, not stated or not applicable	3	20.0	4	36.4	7	26.9
<b>Total</b>	<b>15</b>	<b>100.0</b>	<b>11</b>	<b>100.0</b>	<b>26</b>	<b>100.0</b>

**Table No. 59: Lung cancer cases by intention of treatment**

Intent of Treatment	Male	%	Female	%	Total	%
Curative	2	13.3	1	9.1	3	11.5
Palliative	13	86.7	10	90.9	23	88.5
<b>Total</b>	<b>15</b>	<b>100.0</b>	<b>11</b>	<b>100.0</b>	<b>26</b>	<b>100.0</b>

**Table No. 60: Lung cancer cases by type of treatment availed**

Treatment	Male	%	Female	%	Total	%
CT	7	46.7	6	54.5	13	50.0
RT	0	0.0	1	9.1	1	3.8
CT + RT	1	6.7	1	9.1	2	7.7
No Treatment	7	46.7	3	27.3	10	38.5
<b>Total</b>	<b>15</b>	<b>100.0</b>	<b>11</b>	<b>100.0</b>	<b>26</b>	<b>100.0</b>

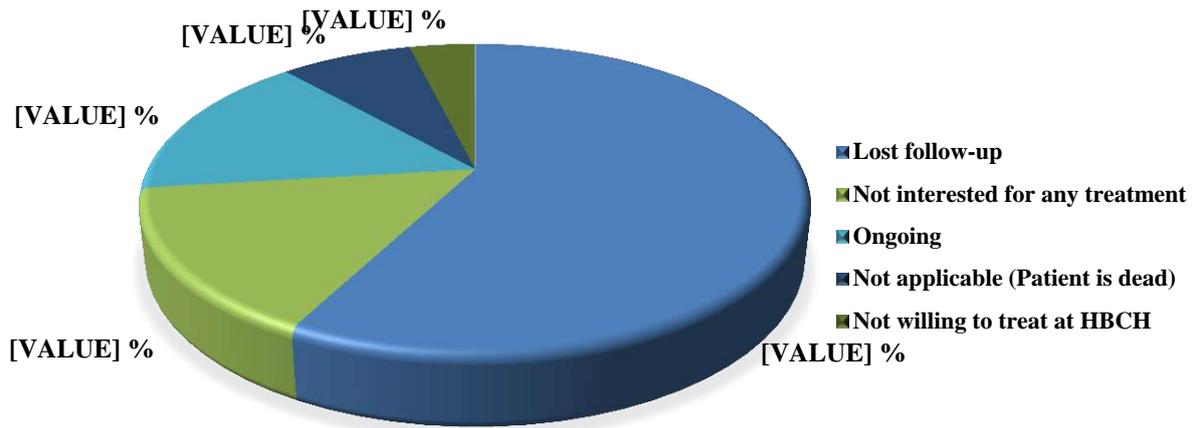
**Figure No. 26: Lung cancer cases by type of treatment availed****Table No. 61: Treatment status of lung cancer cases**

Treatment Status	Male	%	Female	%	Total	%
Complete	2	13.3	4	36.4	6	23.1
Incomplete	6	40.0	4	36.4	10	38.5
No treatment	7	46.7	3	27.3	10	38.5
<b>Total</b>	<b>15</b>	<b>100.0</b>	<b>11</b>	<b>100.0</b>	<b>26</b>	<b>100.0</b>

**Table No. 62: Follow-up status of lung cancer cases**

Follow-up Status	Male	%	Female	%	Total	%
Not interested in any treatment	3	20.0	1	9.1	4	15.4
Not willing to treat at HBCH	1	6.7	0	0.0	1	3.8
Lost follow-up	8	53.3	7	63.6	15	57.7
Ongoing	2	13.3	2	18.2	4	15.4
Not applicable (Patient is dead)	1	6.7	1	9.1	2	7.7
<b>Total</b>	<b>15</b>	<b>100.0</b>	<b>11</b>	<b>100.0</b>	<b>26</b>	<b>100.0</b>

**Figure No. 27: Follow-up status of lung cancer cases**



## Colon Cancer ICD-10: (C18)

- A total of 19 cases of colon cancer have been reported [Male: 10 (52.6%); Female: 9 (47.4%)]. Out of 19 cases, 18 (94.7%) cases are new and 1 (5.3%) are old.
- The mean age for both male and female patients is 50 and 63 years.
- The majority of reported colon cancer cases are from Ratnagiri (68.4%), Sindhudurg (15.8%) and Mumbai district (10.5%).
- 42.1% of the cases have been registered at loco-regional stage followed by distant metastasis 36.8%.
- In terms of site, sigmoid colon is the most commonly affected site (52.6%) followed by colon, Nos (21.1%) and ascending colon (15.8%).
- 78.9 % of the colon cancer cases have histology of adenocarcinoma.
- In terms of Grade, 47.4% of the cases are poorly differentiated.
- Of the 19 cases, 7 (36.8%) cases have completed the treatment at BKL Walawalkar Hospital.
- The intention of treatment is mainly curative (63.2 %) followed by palliative (36.8%).
- CT is the predominant treatment (47.4%) followed by Surgery (21.1%), Surgery + CT (21.1%), CT + RT (5.3%) and Surgery + RT (5.3%).
- Out of 19 cases, 15 (78.9%) patients are lost to follow-up.

**Table No. 63: Colon cancer cases by type of case**

Type of case	Male	%	Female	%	Total	%
Post Treatment (old)	1	10.0	0	0.0	1	5.3
Pre-Primum (New)	9	90.0	9	100.0	18	94.7
<b>Total</b>	<b>10</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>	<b>19</b>	<b>100.0</b>

**Table No. 64: Colon cancer cases profile in Ratnagiri**

HBCR vs PBCR (Colon Cancer)	HBCR Ratnagiri 2022		PBCR Ratnagiri 2017-18	
	Male	Female	Male	Female
Rank	7	7		
Number & % of total cases	10 (4%)	9 (3.2%)	18 (2.1%)	8 (0.7%)
Age-adjusted incidence rates per 100,000			1.1	0.4

**Table No. 65: Age distribution of colon cancer cases**

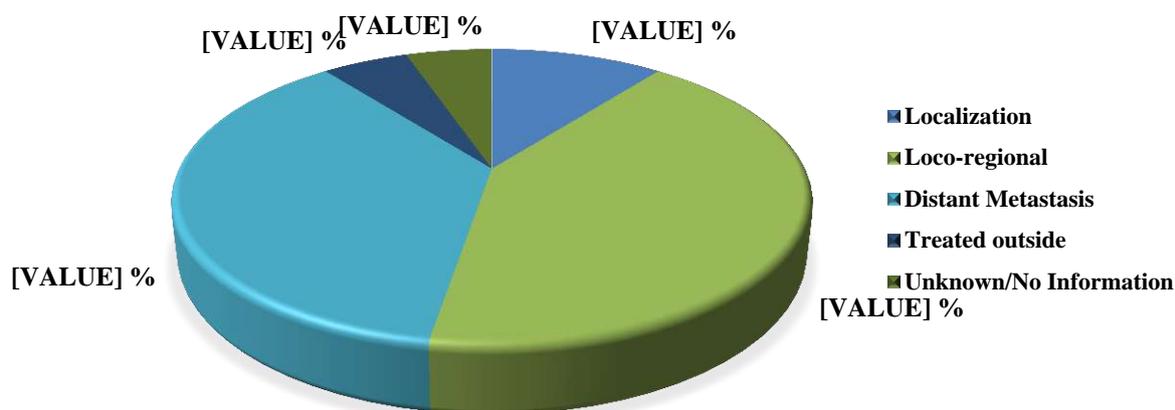
Age Group	Male	%	Female	%	Total	%
30-34	0	0.0	1	11.1	1	5.3
35-39	3	30.0	0	0.0	3	15.8
40-44	1	10.0	0	0.0	1	5.3
45-49	2	20.0	1	11.1	3	15.8
50-54	1	10.0	0	0.0	1	5.3
55-59	0	0.0	2	22.2	2	10.5
60-64	1	10.0	0	0.0	1	5.3
65-69	1	10.0	0	0.0	1	5.3
70-74	1	10.0	2	22.2	3	15.8
75+	0	0.0	3	33.3	3	15.8
<b>Total</b>	<b>10</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>	<b>19</b>	<b>100.0</b>
Mean age	Male: 50 years		Female: 63 years			

**Table No. 66: Colon cancer cases by district**

Districts	Male	%	Female	%	Total	%
Mumbai City	1	10.0	1	11.1	2	10.5
Raigad	0	0.0	1	11.1	1	5.3
Ratnagiri	8	80.0	5	55.6	13	68.4
Sindhudurg	1	10.0	2	22.2	3	15.8
<b>Total</b>	<b>10</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>	<b>19</b>	<b>100.0</b>

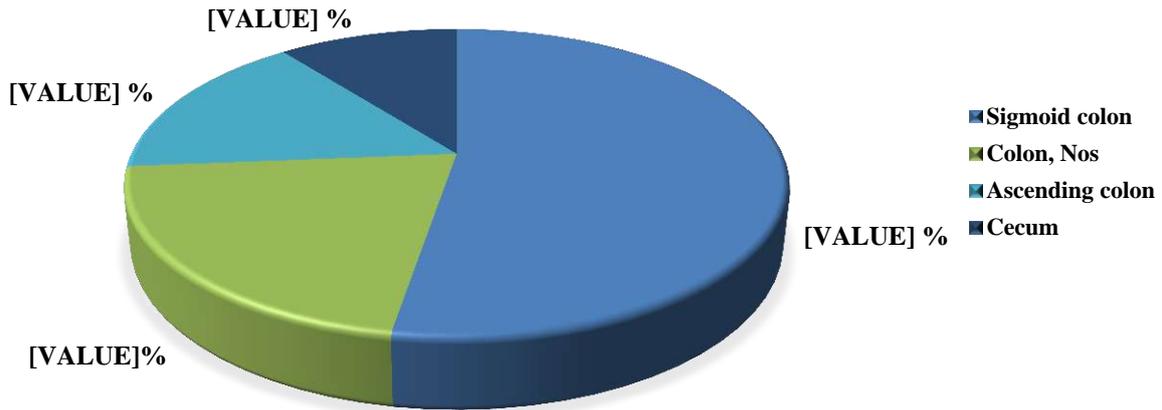
**Table No. 67: Colon cancer cases by clinical extent of disease**

Clinical Extent	Male	%	Female	%	Total	%
Localization	0	0.0	2	22.2	2	10.5
Loco-regional	5	50.0	3	33.3	8	42.1
Distant Metastasis	4	40.0	3	33.3	7	36.8
Treated outside	1	10.0	0	0.0	1	5.3
Unknown/No Information	0	0.0	1	11.1	1	5.3
<b>Total</b>	<b>10</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>	<b>19</b>	<b>100.0</b>

**Figure No. 28: Colon cancer cases by clinical extent of disease****Table No. 68: Colon cancer cases by site**

ICD-10	Site	Male	%	Female	%	Total	%
C18.0	Cecum	2	20.0	0	0.0	2	10.5
C18.2	Ascending colon	3	30.0	0	0.0	3	15.8
C18.7	Sigmoid colon	3	30.0	7	77.8	10	52.6
C18.9	Colon, Nos	2	20.0	2	22.2	4	21.1
<b>Total</b>		<b>10</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>	<b>19</b>	<b>100.0</b>

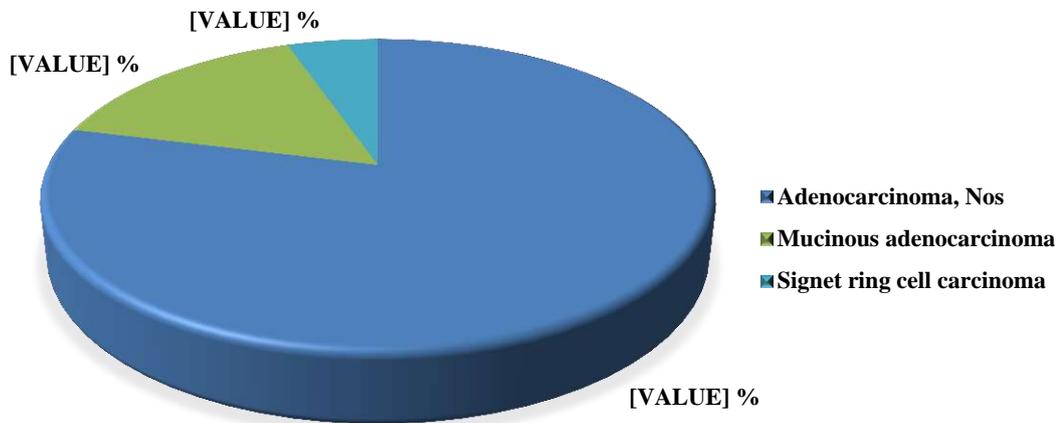
**Figure No. 29: Colon cancer cases by site**



**Table No. 69: Colon cancer cases by histology**

ICD-O3	Histology	Male	%	Female	%	Total	%
8140	Adenocarcinoma, Nos	6	60.0	9	100.0	15	78.9
8480	Mucinous adenocarcinoma	3	30.0	0	0.0	3	15.8
8490	Signet ring cell carcinoma	1	10.0	0	0.0	1	5.3
<b>Total</b>		<b>10</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>	<b>19</b>	<b>100.0</b>

**Figure No. 30: Colon cancer cases by histology**



**Table No. 70: Colon cancer cases by grade**

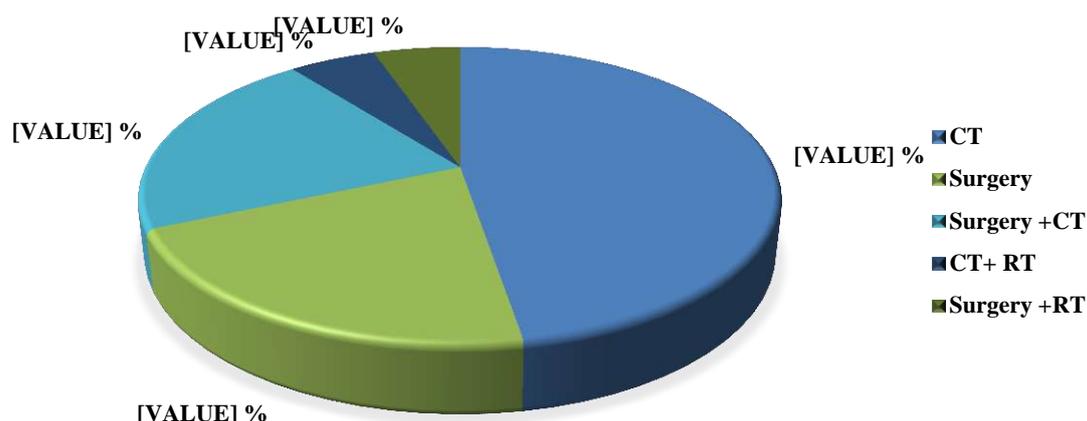
Grade	Male	%	Female	%	Total	%
Grade1: Well differentiated	1	10.0	1	11.1	2	10.5
Grade2: Moderately differentiated	4	40.0	4	44.4	8	42.1
Grade3: Poorly differentiated	5	50.0	4	44.4	9	47.4
<b>Total</b>	<b>10</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>	<b>19</b>	<b>100.0</b>

**Table No. 71: Colon cancer cases by intention of treatment**

Intent of Treatment	Male	%	Female	%	Total	%
Curative	5	50.0	7	77.8	12	63.2
Palliative	5	50.0	2	22.2	7	36.8
<b>Total</b>	<b>10</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>	<b>19</b>	<b>100.0</b>

**Table No. 72: Colon cancer cases by type of treatment availed**

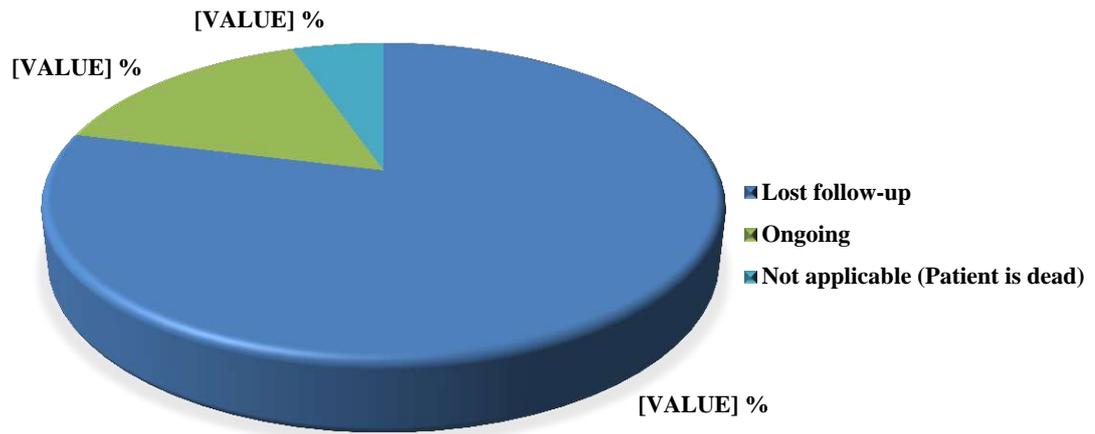
Treatment	Male	%	Female	%	Total	%
CT	7	70.0	2	22.2	9	47.4
Surgery	0	0.0	4	44.4	4	21.1
CT+ RT	1	10.0	0	0.0	1	5.3
Surgery +CT	2	20.0	2	22.2	4	21.1
Surgery +RT	0	0.0	1	11.1	1	5.3
<b>Total</b>	<b>10</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>	<b>19</b>	<b>100.0</b>

**Figure No. 31: Colon cancer cases by type of treatment availed****Table No. 73: Treatment status of colon cancer cases**

Treatment Status	Male	%	Female	%	Total	%
Complete	5	50.0	2	22.2	7	36.8
Incomplete	5	50.0	7	77.8	12	63.2
<b>Total</b>	<b>10</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>	<b>19</b>	<b>100.0</b>

**Table No. 74: Follow-up status of colon cancer cases**

Follow-up Status	Male	%	Female	%	Total	%
Lost follow-up	6	60.0	9	100.0	15	78.9
Ongoing	3	30.0	0	0.0	3	15.8
Not applicable (Patient is dead)	1	10.0	0	0.0	1	5.3
<b>Total</b>	<b>10</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>	<b>19</b>	<b>100.0</b>

**Figure No. 32: Follow-up status of colon cancer cases**

## Rectum Cancer ICD-10: (C19-C20)

- A total of 16 cases of rectum cancer have been reported [Male: 14 (87.5%); Female: 2 (12.5%)]. Out of 16 cases, 13 (81.3%) cases are new and 3 (18.7%) are old.
- The mean age for both male and female patients is 59 and 45 years.
- The majority of reported rectum cancer cases are from Ratnagiri (62.5%), Sindhudurg (25%), Raigad (6.3%), and Thane district (6.3%).
- 50% of the cases have been registered at loco-regional stage followed by distant metastasis 12.5%.
- 93.8 % of the rectum cancer cases have histology of adenocarcinoma.
- In terms of Grade, 37.5% of the cases are moderately differentiated.
- Of the 16 cases, 8 (50%) cases have completed the treatment at BKL Walawalkar Hospital.
- The intention of treatment is mainly curative (68.8 %) followed by palliative (31.3%).
- CT is the predominant treatment (56.3%) followed by Surgery (18.8%), Surgery + CT (12.5%), CT + RT (12.5%).
- Out of 16 cases, 14 (87.5%) patients are lost to follow-up.

**Table No. 75: Rectum cancer cases by type of case**

Type of case	Male	%	Female	%	Total	%
Post Treatment (old)	2	14.3	1	50.0	3	18.7
Pre-Primum (New)	12	85.7	1	50.0	13	81.3
<b>Total</b>	<b>14</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>	<b>16</b>	<b>100.0</b>

**Table No. 76: Rectum cancer cases profile in Ratnagiri**

HBCR vs PBCR (Rectum Cancer)	HBCR Ratnagiri 2022		PBCR Ratnagiri 2017-18	
	Male	Female	Male	Female
Rank	4		9	10
Number & % of total cases	14 (5.6%)	2 (0.7%)	26 (3%)	25 (2.3%)
Age-adjusted incidence rates per 100,000			1.5	1.1

**Table No. 77: Age distribution of rectum cancer cases**

Age Group	Male	%	Female	%	Total	%
35-39	0	0.0	1	50.0	1	6.3
40-44	2	14.3	0	0.0	2	12.5
45-49	2	14.3	0	0.0	2	12.5
50-54	1	7.1	1	50.0	2	12.5
55-59	1	7.1	0	0.0	1	6.3
60-64	3	21.4	0	0.0	3	18.8
65-69	2	14.3	0	0.0	2	12.5
70-74	1	7.1	0	0.0	1	6.3
75+	2	14.3	0	0.0	2	12.5
<b>Total</b>	<b>14</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>	<b>16</b>	<b>100</b>
<b>Mean age</b>	<b>Male: 59 years</b>		<b>Female: 45 years</b>			

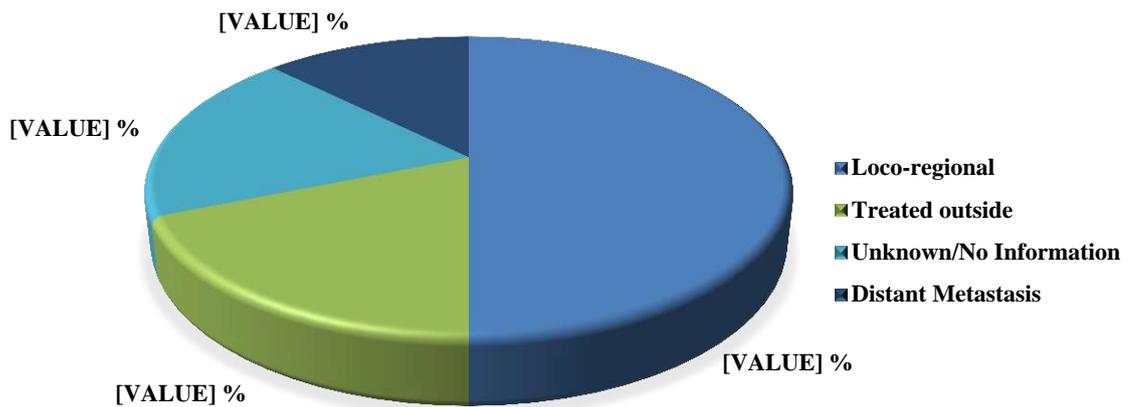
**Table No. 78: Rectum cancer cases by district**

Districts	Male	%	Female	%	Total	%
Raigad	0	0.0	1	50.0	1	6.3
Ratnagiri	9	64.3	1	50.0	10	62.5
Sindhudurg	4	28.6	0	0.0	4	25.0
Thane	1	7.1	0	0.0	1	6.3
<b>Total</b>	<b>14</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>	<b>16</b>	<b>100</b>

**Table No. 79: Rectum cancer cases by clinical extent of disease**

Clinical Extent	Male	%	Female	%	Total	%
Loco-regional	7	50.0	1	50.0	8	50.0
Distant Metastasis	2	14.3	0	0.0	2	12.5
Treated outside	2	14.3	1	50.0	3	18.8
Unknown/No Information	3	21.4	0	0.0	3	18.8
<b>Total</b>	<b>14</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>	<b>16</b>	<b>100.0</b>

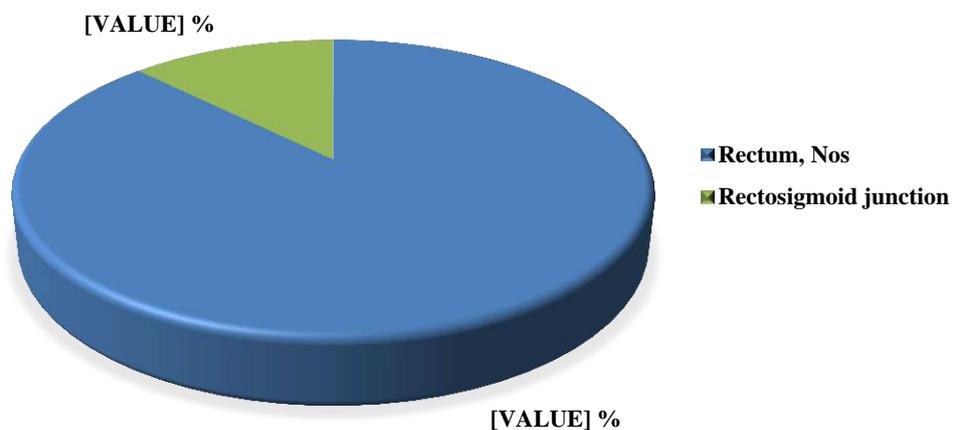
**Figure No. 33: Rectum cancer cases by clinical extent of disease**



**Table No. 80: Rectum cancer cases by site**

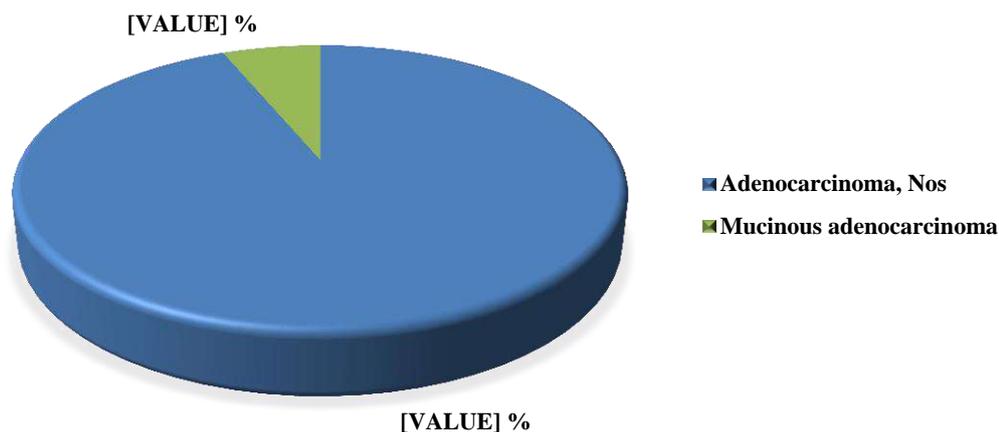
ICD-10	Site	Male	%	Female	%	Total	%
C19.9	Rectosigmoid junction	2	14.3	0	0.0	2	12.5
C20.9	Rectum, Nos	12	85.7	2	100.0	14	87.5
<b>Total</b>		<b>14</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>	<b>16</b>	<b>100</b>

**Figure No. 34: Rectum cancer cases by site**



**Table No. 81: Rectum cancer cases by histology**

ICD-O3	Histology	Male	%	Female	%	Total	%
8140	Adenocarcinoma, Nos	14	100.0	1	50.0	15	93.8
8480	Mucinous adenocarcinoma	0	0.0	1	50.0	1	6.3
<b>Total</b>		<b>14</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>	<b>16</b>	<b>100.0</b>

**Figure No. 35: Rectum cancer cases by histology****Table No. 82: Rectum cancer cases by grade**

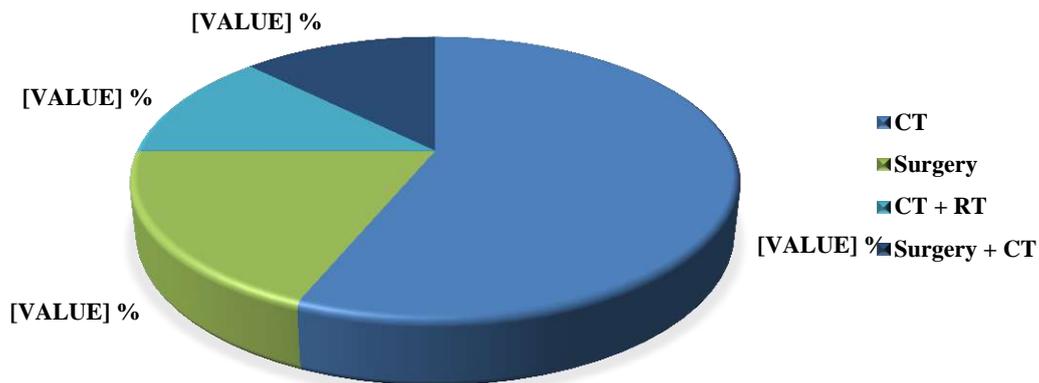
Grade	Male	%	Female	%	Total	%
Grade1: Well differentiated	5	35.7	0	0.0	5	31.3
Grade2: Moderately differentiated	6	42.9	0	0.0	6	37.5
Grade3: Poorly differentiated	3	21.4	2	100.0	5	31.3
<b>Total</b>	<b>14</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>	<b>16</b>	<b>100.0</b>

**Table No. 83: Rectum cancer cases by intention of treatment**

Intent of Treatment	Male	%	Female	%	Total	%
Curative	10	71.4	1	50.0	11	68.8
Palliative	4	28.6	1	50.0	5	31.3
<b>Total</b>	<b>14</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>	<b>16</b>	<b>100.0</b>

**Table No. 84: Rectum cancer cases by type of treatment availed**

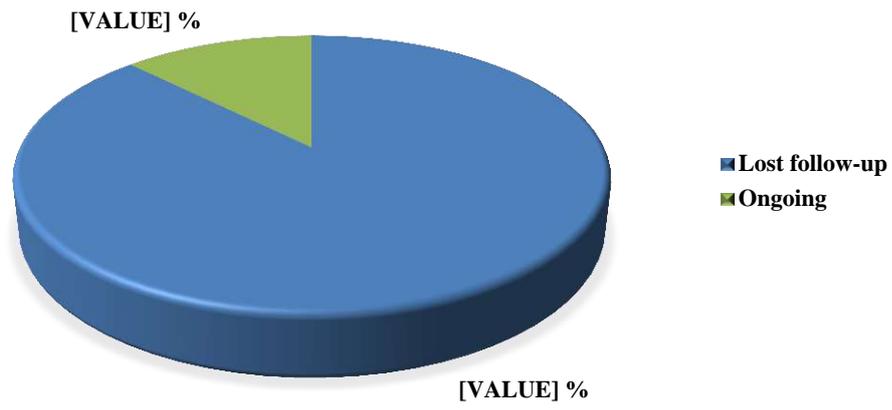
Treatment	Male	%	Female	%	Total	%
CT	9	64.3	0	0.0	9	56.3
Surgery	3	21.4	0	0.0	3	18.8
CT + RT	0	0.0	2	100.0	2	12.5
Surgery + CT	2	14.3	0	0.0	2	12.5
<b>Total</b>	<b>14</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>	<b>16</b>	<b>100.0</b>

**Figure No. 36: Rectum cancer cases by type of treatment availed****Table No. 85: Treatment status of rectum cancer cases**

Treatment Status	Male	%	Female	%	Total	%
Complete	7	50.0	1	50.0	8	50.0
Incomplete	7	50.0	1	50.0	8	50.0
<b>Total</b>	<b>14</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>	<b>16</b>	<b>100.0</b>

**Table No. 86: Follow-up status of rectum cancer cases**

Follow-up Status	Male	%	Female	%	Total	%
Lost follow-up	12	85.7	2	100.0	14	87.5
Ongoing	2	14.3	0	0.0	2	12.5
<b>Total</b>	<b>14</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>	<b>16</b>	<b>100</b>

**Figure No. 37: Follow-up status of rectum cancer cases**

## Larynx Cancer ICD-10: (C32)

- A total of 15 cases of larynx cancer have been reported [Male: 13 (86.7%); Female: 2 (13.3%)]. Out of 15 cases, 14 (93.3%) cases are new and 1 (6.7%) are old.
- The mean age for both male and female patients is 60 and 56 years.
- The majority of reported larynx cancer cases are from Ratnagiri (60%), Raigad (33.3%), and Sindhudurg district (6.7%).
- 66.7% of the cases have been registered at loco-regional stage.
- In terms of site, supraglottis is the most commonly affected site (53.3%) followed by glottis (33.3%).
- 100 % of the larynx cancer cases have histology of squamous cell carcinoma.
- In terms of Grade, 46.7% of the cases are poorly differentiated.
- Of the 15 cases, 6 (40%) cases have completed the treatment at BKL Walawalkar Hospital.
- The intention of treatment is mainly curative (73.3 %) followed by palliative (26.7%).
- CT + RT is the predominant treatment (60%) followed by CT (26.7%), Surgery + CT (6.7%).
- Out of 15 cases, 13 (86.7%) patients are lost to follow-up.

**Table No. 87: Larynx cancer cases by type of case**

Type of case	Male	%	Female	%	Total	%
Post Treatment (old)	1	7.7	0	0.0	1	6.7
Pre-Primum (New)	12	92.3	2	100.0	14	93.3
<b>Total</b>	<b>13</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>	<b>15</b>	<b>100.0</b>

**Table No. 88: Larynx cancer cases profile in Ratnagiri**

HBCR vs PBCR (Larynx Cancer)	HBCR Ratnagiri 2022		PBCR Ratnagiri 2017-18	
	Male	Female	Male	Female
Rank	5			
Number & % of total cases	13 (5.2%)	2 (0.7%)	18 (2.1)	4 (0.4)
Age-adjusted incidence rates per 100,000			1.0	0.2

**Table No. 89: Age distribution of larynx cancer cases**

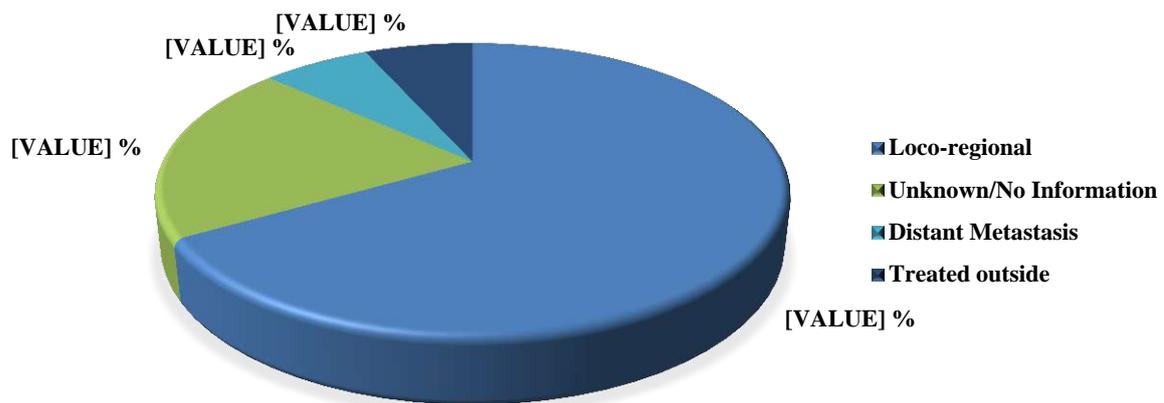
Age Group	Male	%	Female	%	Total	%
40-44	2	15.4	0	0.0	2	13.3
45-49	1	7.7	0	0.0	1	6.7
50-54	1	7.7	1	50.0	2	13.3
55-59	2	15.4	0	0.0	2	13.3
60-64	2	15.4	1	50.0	3	20.0
65-69	4	30.8	0	0.0	4	26.7
75+	1	7.7	0	0.0	1	6.7
<b>Total</b>	<b>13</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>	<b>15</b>	<b>100.0</b>
<b>Mean age</b>	<b>Male: 60 years</b>		<b>Female: 56 years</b>			

**Table No. 90: Larynx cancer cases by district**

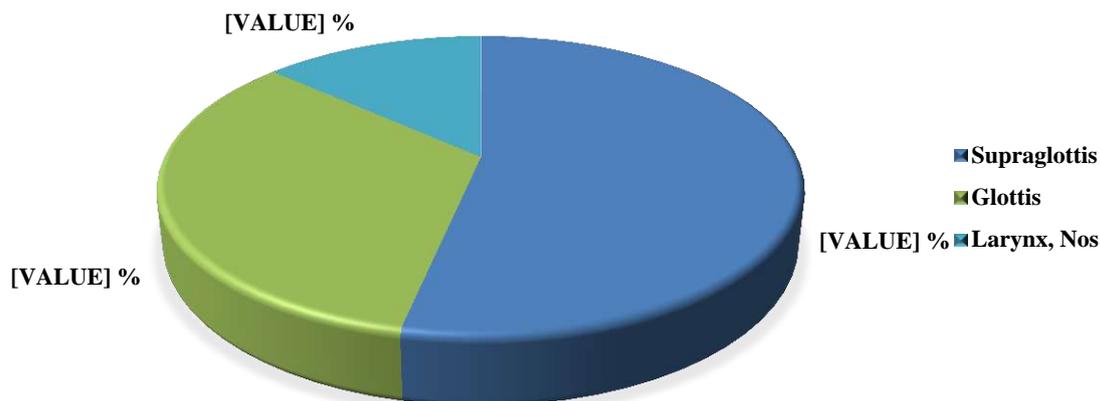
Districts	Male	%	Female	%	Total	%
Raigad	4	30.8	1	50.0	5	33.3
Ratnagiri	8	61.5	1	50.0	9	60.0
Sindhudurg	1	7.7	0	0.0	1	6.7
<b>Total</b>	<b>13</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>	<b>15</b>	<b>100.0</b>

**Table No. 91: Larynx cancer cases by clinical extent of disease**

Clinical Extent	Male	%	Female	%	Total	%
Loco-regional	9	69.2	1	50.0	10	66.7
Distant Metastasis	1	7.7	0	0.0	1	6.7
Treated outside	1	7.7	0	0.0	1	6.7
Unknown/No Information	2	15.4	1	50.0	3	20.0
<b>Total</b>	<b>13</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>	<b>15</b>	<b>100.0</b>

**Figure No. 38: Larynx cancer cases by clinical extent of disease****Table No. 92: Larynx cancer cases by site**

ICD-10	Site	Male	%	Female	%	Total	%
C32.0	Glottis	4	30.8	1	50.0	5	33.3
C32.1	Supraglottis	8	61.5	0	0.0	8	53.3
C32.9	Larynx, Nos	1	7.7	1	50.0	2	13.3
<b>Total</b>		<b>13</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>	<b>15</b>	<b>100.0</b>

**Figure No. 39: Larynx cancer cases by site****Table No. 93: Larynx cancer cases by histology**

ICD-O3	Histology	Male	%	Female	%	Total	%
8070	Squamous cell carcinoma, Nos	13	100.0	2	100.0	15	100.0
<b>Total</b>		<b>13</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>	<b>15</b>	<b>100.0</b>

**Table No. 94: Larynx cancer cases by grade**

Grade	Male	%	Female	%	Total	%
Grade1: Well differentiated	2	15.4	1	50.0	3	20.0
Grade2: Moderately differentiated	4	30.8	1	50.0	5	33.3
Grade3: Poorly differentiated	7	53.8	0	0.0	7	46.7
<b>Total</b>	<b>13</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>	<b>15</b>	<b>100.0</b>

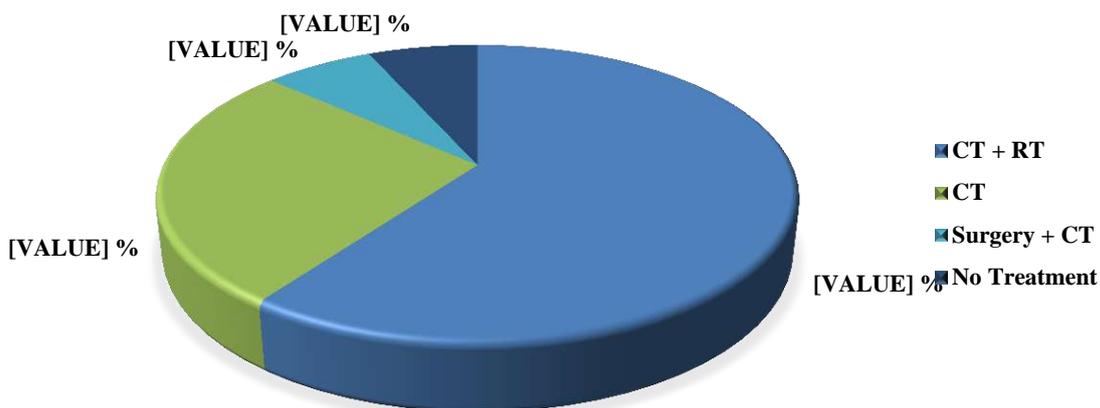
**Table No. 95: Larynx cancer cases by intention of treatment**

Intent of Treatment	Male	%	Female	%	Total	%
Curative	11	84.6	0	0.0	11	73.3
Palliative	2	15.4	2	100.0	4	26.7
<b>Total</b>	<b>13</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>	<b>15</b>	<b>100.0</b>

**Table No. 96: Larynx cancer cases by type of treatment availed**

Treatment	Male	%	Female	%	Total	%
CT	4	30.8	0	0.0	4	26.7
CT + RT	7	53.8	2	100.0	9	60.0
Surgery + CT	1	7.7	0	0.0	1	6.7
No Treatment	1	7.7	0	0.0	1	6.7
<b>Total</b>	<b>13</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>	<b>15</b>	<b>100.0</b>

**Figure No. 40: Larynx cancer cases by type of treatment availed**



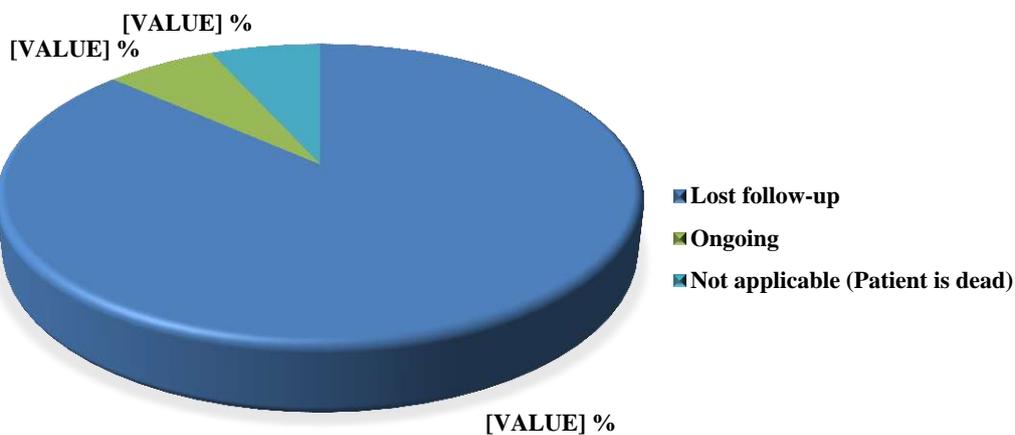
**Table No. 97: Treatment status of larynx cancer cases**

Treatment Status	Male	%	Female	%	Total	%
Complete	6	46.2	0	0.0	6	40.0
Incomplete	6	46.2	2	100.0	8	53.3
No treatment	1	7.7	0	0.0	1	6.7
<b>Total</b>	<b>13</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>	<b>15</b>	<b>100.0</b>

**Table No. 98: Follow-up status of larynx cancer cases**

Follow-up Status	Male	%	Female	%	Total	%
Lost follow-up	11	84.6	2	100.0	13	86.7
Ongoing	1	7.7	0	0.0	1	6.7
Not applicable (Patient is dead)	1	7.7	0	0.0	1	6.7
<b>Total</b>	<b>13</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>	<b>15</b>	<b>100.0</b>

**Figure No. 41: Follow-up status of larynx cancer cases**



## Breast Cancer ICD-10: (C50)

- A total of 87 cases of breast cancer have been reported. Out of 87 cases, 68 (78.2%) cases are new and 19 (21.8%) are old.
- The mean age for female patients is 53 years.
- The majority of reported breast cancer cases are from Ratnagiri (70.1%), Sindhudurg (17.2%), and Raigad districts (9.2%).
- 62.1% of the cases have been registered at loco-regional stage.
- In terms of site, breast nos is the most commonly affected site (34.5%) followed by upper outer quadrant of breast (28.7%) and upper inner quadrant of breast (13.8%).
- 90.8 % of all breast cancer cases registered were Infiltrating duct carcinoma.
- In terms of Grade, 72.4% of the cases are poorly differentiated.
- 25.3% of cases were triple negative breast cancers with respect to hormone receptor status.
- Of the 87 cases, 51 (58.6%) cases have completed the treatment at BKL Walawalkar Hospital.
- The intention of treatment is mainly curative (85.1 %) followed by palliative (14.9%).
- CT is the predominant treatment (17%) followed by Surgery + CT + RT (11.5%), Surgery + CT + RT + HT (11.5%) and Surgery (10.3%).
- Out of 87 cases, 47 (54%) patients are lost to follow-up.

**Table No. 99: Breast cancer cases by type of case**

Type of case	Total	%
Post Treatment (old)	19	21.8
Pre-Primum (New)	68	78.2
<b>Total</b>	<b>87</b>	<b>100.0</b>

**Table No. 100: Breast cancer cases profile in Ratnagiri**

HBCR vs PBCR (Breast Cancer)	HBCR Ratnagiri 2022	PBCR Ratnagiri 2017-18
	Female	Female
Rank	1	1
Number & % of total cases	87 (31.2%)	267 (25%)
Age-adjusted incidence rates per 100,000		13.5

**Table No. 101: Age distribution of breast cancer cases**

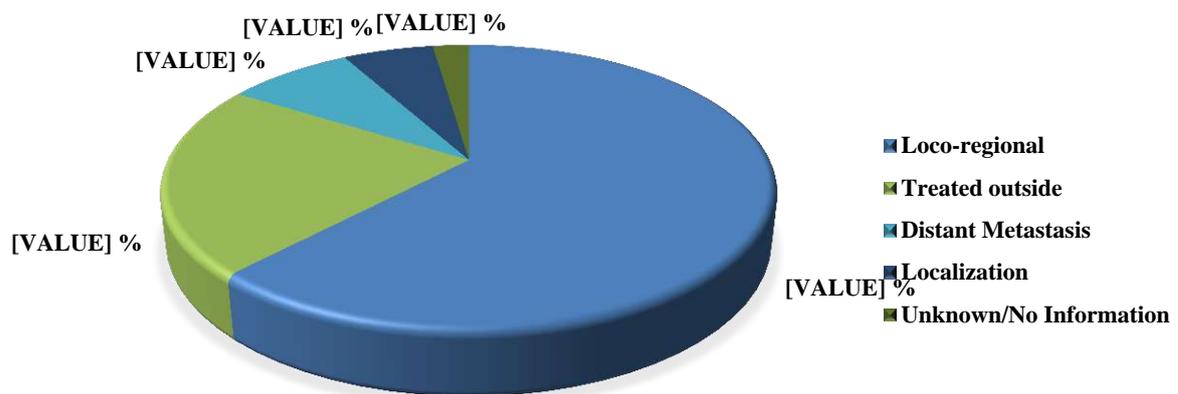
Age Group	Total	%
25-29	1	1.1
30-34	3	3.4
35-39	8	9.2
40-44	10	11.5
45-49	15	17.2
50-54	18	20.7
55-59	11	12.6
60-64	8	9.2
65-69	3	3.4
70-74	4	4.6
75+	6	6.9
<b>Total</b>	<b>87</b>	<b>100.0</b>
<b>Mean age</b>	<b>53 years</b>	

**Table No. 102: Breast cancer cases by district**

Districts	Total	%
Aurangabad	1	1.1
Kolhapur	1	1.1
Mumbai city	1	1.1
Raigad	8	9.2
Ratnagiri	61	70.1
Sindhudurg	15	17.2
<b>Total</b>	<b>87</b>	<b>100.0</b>

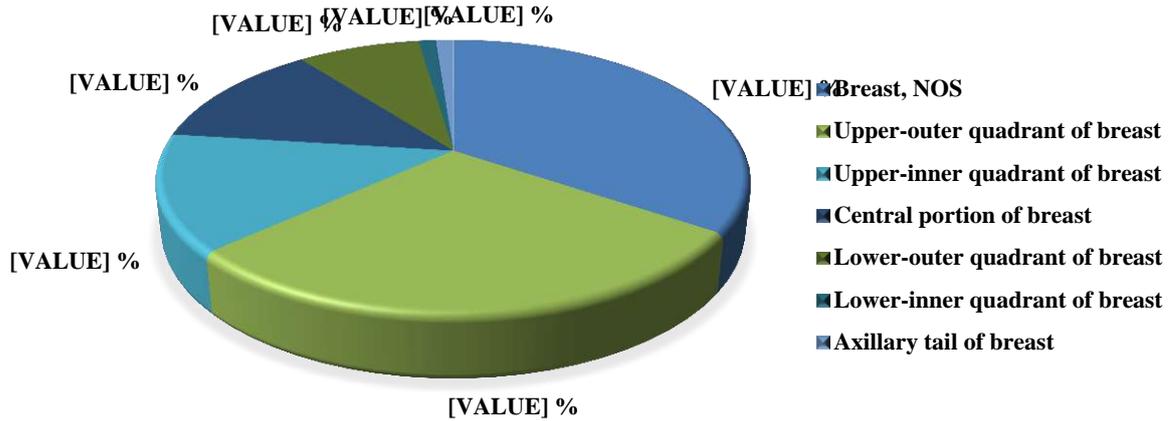
**Table No. 103: Breast cancer cases by clinical extent of disease**

Clinical Extent	Total	%
Localization	5	5.7
Loco-regional	54	62.1
Distant Metastasis	7	8.0
Treated outside	19	21.8
Unknown/No Information	2	2.3
<b>Total</b>	<b>87</b>	<b>100.0</b>

**Figure No. 42: Breast cancer cases by clinical extent of disease****Table No. 104: Breast cancer cases by site**

ICD-10	Site	Total	%
C50.1	Central portion of breast	11	12.6
C50.2	Upper-inner quadrant of breast	12	13.8
C50.3	Lower-inner quadrant of breast	1	1.1
C50.4	Upper-outer quadrant of breast	25	28.7
C50.5	Lower-outer quadrant of breast	7	8.0
C50.6	Axillary tail of breast	1	1.1
C50.9	Breast, NOS	30	34.5
<b>Total</b>		<b>87</b>	<b>100.0</b>

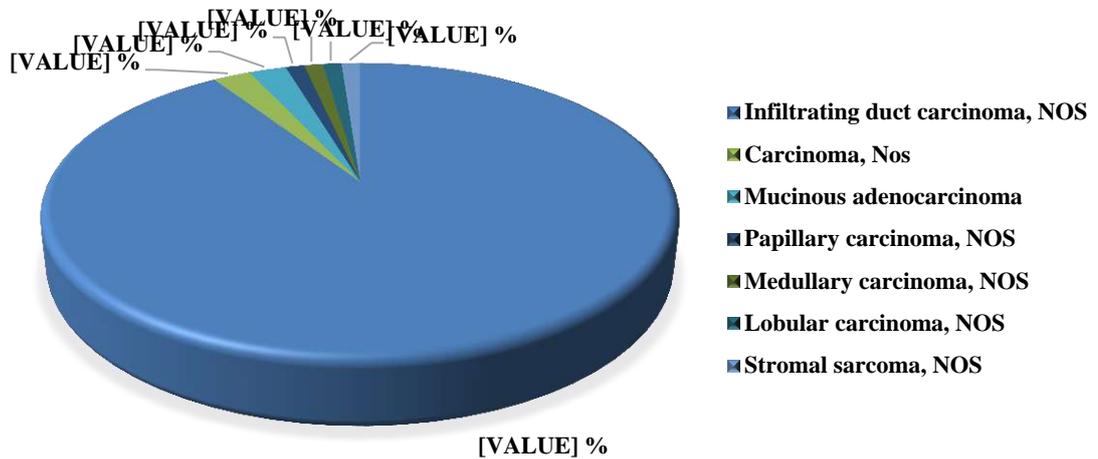
**Figure No. 43: Breast cancer cases by site**



**Table No. 105: Breast cancer cases by histology**

ICD-O3	Histology	Total	%
8010	Carcinoma, Nos	2	2.3
8050	Papillary carcinoma, NOS	1	1.1
8480	Mucinous adenocarcinoma	2	2.3
8500	Infiltrating duct carcinoma, NOS	79	90.8
8510	Medullary carcinoma, NOS	1	1.1
8520	Lobular carcinoma, NOS	1	1.1
8935	Stromal sarcoma, NOS	1	1.1
<b>Total</b>		<b>87</b>	<b>100.0</b>

**Figure No. 44: Breast cancer cases by histology**



**Table No. 106: Breast cancer cases by grade**

Grade	Total	%
Grade1: Well differentiated	2	2.3
Grade2: Moderately differentiated	16	18.4
Grade3: Poorly differentiated	63	72.4
Grade not mentioned, not stated or not applicable	6	6.9
<b>Total</b>	<b>87</b>	<b>100.0</b>

**Table No. 107: Receptor status of breast cancer**

ER	PR	HER2	Total	%
Positive	Positive	Positive	5	5.7
Negative	Negative	Negative	22	25.3
Positive	Positive	Negative	17	19.5
Positive	Negative	Negative	6	6.9
Negative	Negative	Positive	13	14.9
Negative	Positive	Negative	1	1.1
Positive	Negative	Positive	4	4.6
Not done	Not done	Not done	7	8.0
No information			12	13.8
<b>Total</b>			<b>87</b>	<b>100.0</b>

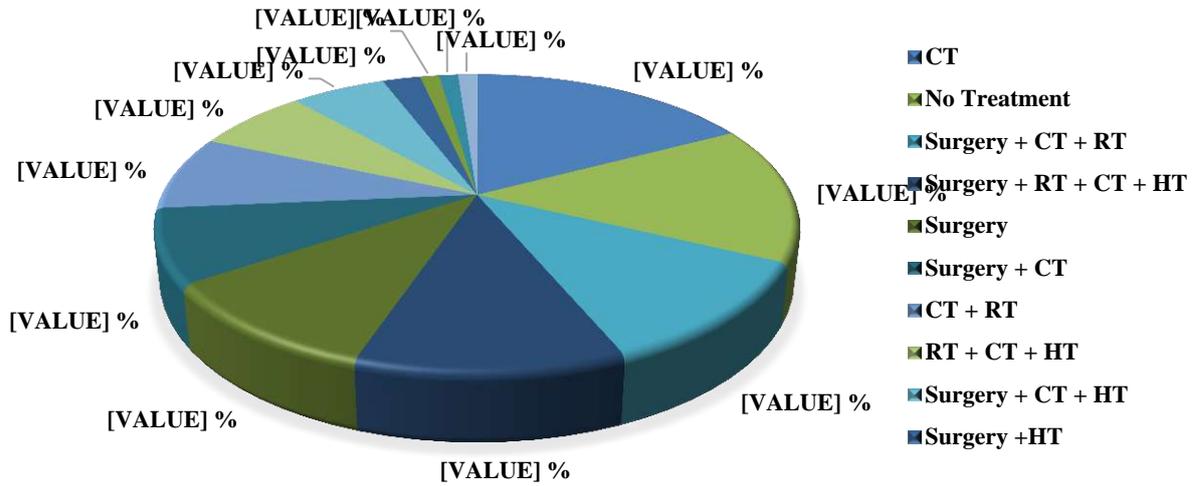
**Table No. 108: Breast cancer cases by intention of treatment**

Intent of Treatment	Total	%
Curative	74	85.1
Palliative	13	14.9
<b>Total</b>	<b>87</b>	<b>100.0</b>

**Table No. 109: Breast cancer cases by type of treatment availed**

Treatment	Total	%
CT	15	17.2
Surgery	9	10.3
HT	1	1.1
Surgery + CT	7	8.0
Surgery +HT	2	2.3
CT + HT	1	1.1
CT + RT	7	8.0
RT + HT	1	1.1
Surgery + CT + HT	5	5.7
Surgery + CT + RT	10	11.5
RT + CT + HT	6	6.9
Surgery + RT + CT + HT	10	11.5
No Treatment	13	14.9
<b>Total</b>	<b>87</b>	<b>100.0</b>

**Figure No. 45: Breast cancer cases by type of treatment availed**



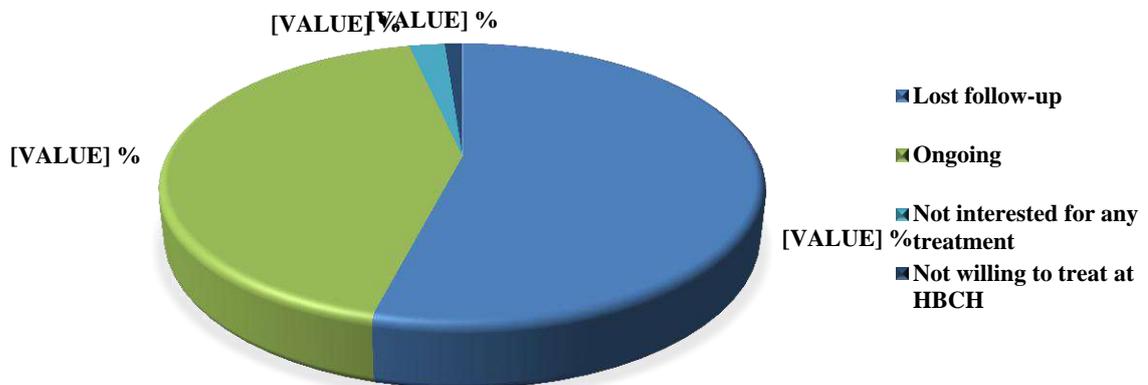
**Table No. 110: Treatment status of breast cancer cases**

Treatment Status	Total	%
Complete	51	58.6
Incomplete	23	26.4
No treatment	13	14.9
<b>Total</b>	<b>87</b>	<b>100.0</b>

**Table No. 111: Follow-up status of breast cancer cases**

Follow-up Status	Total	%
Not interested in any treatment	2	2.3
Not willing to treat at HBCH	1	1.1
Lost follow-up	47	54.0
Ongoing	37	42.5
<b>Total</b>	<b>87</b>	<b>100.0</b>

**Figure No. 46: Follow-up status of breast cancer cases**



## Ovary Cancer ICD-10: (C56)

- A total of 19 cases of ovarian cancer have been reported. Out of 19 cases, 15 (78.9%) cases are new and 4 (21.1%) are old.
- The mean age for female patients is 55 years.
- The majority of reported ovarian cancer cases are from Ratnagiri (73.7%) and Sindhudurg (26.3%)
- 47.4% of the cases have been registered at distant metastasis followed by 15.8% at loco-regional stage.
- 42.1 % of ovarian cancer cases registered were adenocarcinoma.
- In terms of Grade, 89.5% of the cases are poorly differentiated.
- Of the 19 cases, 11 (57.9%) cases have completed the treatment at BKL Walawalkar Hospital.
- The intention of treatment is mainly curative (57.9 %) followed by palliative (42.1%).
- CT is the predominant treatment (36.8%) followed by Surgery + CT (31.6%), Surgery + CT + HT (15.8%) and Surgery (5.3%).
- Out of 19 cases, 11 (57.9%) patients are lost to follow-up.

**Table No. 112: Ovary cancer cases by type of case**

Type of case	Total	%
Post Treatment (old)	4	21.1
Pre-Primum (New)	15	78.9
<b>Total</b>	<b>19</b>	<b>100.0</b>

**Table No. 113: Ovary cancer cases profile in Ratnagiri**

HBCR vs PBCR (Ovary Cancer)	HBCR Ratnagiri 2022	PBCR Ratnagiri 2017-18
	Female	Female
Rank	3	4
Number & % of total cases	19 (6.8%)	78 (7.3%)
Age-adjusted incidence rates per 100,000		4.0

**Table No. 114: Age distribution of ovary cancer cases**

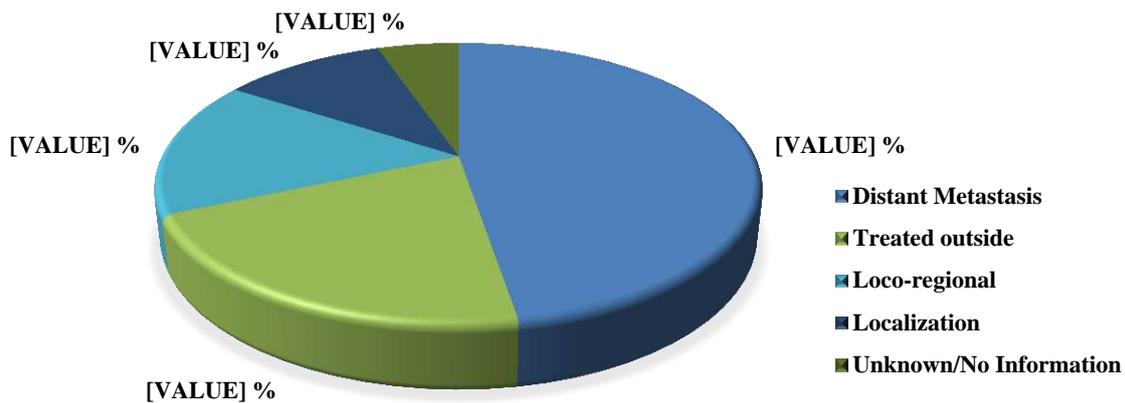
Age Group	Total	%
25-29	1	5.3
40-44	2	10.5
45-49	4	21.1
50-54	2	10.5
55-59	3	15.8
60-64	2	10.5
65-69	2	10.5
70-74	1	5.3
75+	2	10.5
<b>Total</b>	<b>19</b>	<b>100.0</b>
<b>Mean age</b>	<b>55 years</b>	

**Table No. 115: Ovary cancer cases by district**

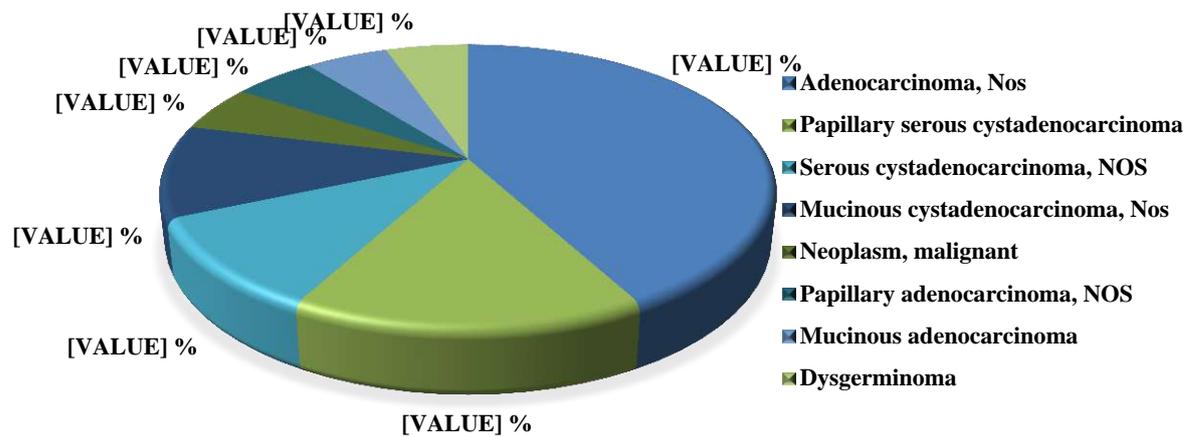
Districts	Total	%
Ratnagiri	14	73.7
Sindhudurg	5	26.3
<b>Total</b>	<b>19</b>	<b>100.0</b>

**Table No. 116: Ovary cancer cases by clinical extent of disease**

Clinical Extent	Total	%
Localization	2	10.5
Loco-regional	3	15.8
Distant Metastasis	9	47.4
Treated outside	4	21.1
Unknown/No Information	1	5.3
<b>Total</b>	<b>19</b>	<b>100.0</b>

**Figure No. 47: Ovary cancer cases by clinical extent of disease****Table No. 117: Ovary cancer cases by histology**

ICD-O3	Histology	Total	%
8000	Neoplasm, malignant	1	5.3
8140	Adenocarcinoma, Nos	8	42.1
8260	Papillary adenocarcinoma, NOS	1	5.3
8441	Serous cystadenocarcinoma, NOS	2	10.5
8460	Papillary serous cystadenocarcinoma	3	15.8
8470	Mucinous cystadenocarcinoma, Nos	2	10.5
8480	Mucinous adenocarcinoma	1	5.3
9060	Dysgerminoma	1	5.3
<b>Total</b>		<b>19</b>	<b>100.0</b>

**Figure No. 48: Ovary cancer cases by histology****Table No. 118: Ovary cancer cases by grade**

Grade	Total	%
Grade2: Moderately differentiated	1	5.3
Grade3: Poorly differentiated	17	89.5
Grade not mentioned, not stated or not applicable	1	5.3
<b>Total</b>	<b>19</b>	<b>100.0</b>

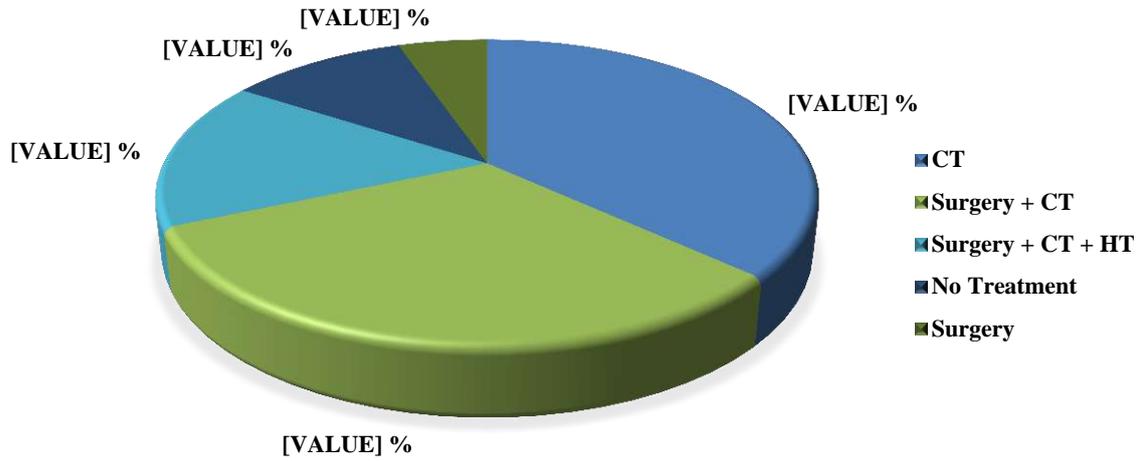
**Table No. 119: Ovary cancer cases by intention of treatment**

Intent of Treatment	Total	%
Curative	11	57.9
Palliative	8	42.1
<b>Total</b>	<b>19</b>	<b>100.0</b>

**Table No. 120: Ovary cancer cases by type of treatment availed**

Treatment	Total	%
CT	7	36.8
Surgery	1	5.3
Surgery + CT	6	31.6
Surgery + CT + HT	3	15.8
No Treatment	2	10.5
<b>Total</b>	<b>19</b>	<b>100.0</b>

**Figure No. 49: Ovary cancer cases by type of treatment availed**



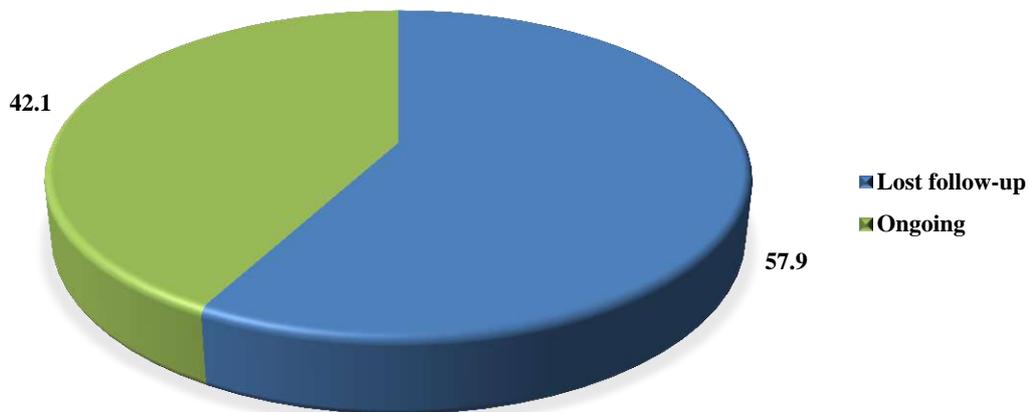
**Table No. 121: Treatment status of ovary cancer cases**

Treatment Status	Total	%
Complete	11	57.9
Incomplete	6	31.6
No treatment	2	10.5
<b>Total</b>	<b>19</b>	<b>100.0</b>

**Table No. 122: Follow-up status of ovary cancer cases**

Follow-up Status	Total	%
Lost follow-up	11	57.9
Ongoing	8	42.1
<b>Total</b>	<b>19</b>	<b>100.0</b>

**Figure No. 50: Follow-up status of ovary cancer cases**



## Cervix Uteri Cancer ICD-10: (C53)

- A total of 17 cases of cervical cancer have been reported. Out of 17 cases, 16 (94.1%) cases are new and 1 (5.9%) are old.
- The mean age for female patients is 55 years.
- The majority of reported cervical cancer cases are from Ratnagiri (64.7%), Sindhudurg (17.6%) and Raigad districts (11.8%).
- 70.6% of the cases have been registered at loco-regional stage.
- 58.8 % of cervical cancer cases registered were squamous cell carcinoma.
- In terms of Grade, 52.9% of the cases are poorly differentiated.
- Of the 17 cases, 9 (52.9%) cases have completed the treatment at BKL Walawalkar Hospital.
- The intention of treatment is mainly curative (88.2 %) followed by palliative (11.8%).
- CT + RT is the predominant treatment (58.8%) followed by RT + CT (17.6%) and RT (5.9%).
- Out of 17 cases, 11 (64.7%) patients are lost to follow-up.

**Table No. 123: Cervix uteri cancer cases by type of case**

Type of case	Total	%
Post Treatment (old)	1	5.9
Pre-Primum (New)	16	94.1
<b>Total</b>	<b>17</b>	<b>100.0</b>

**Table No. 124: Cervix uteri cancer cases profile in Ratnagiri**

HBCR vs PBCR (Cervix Uteri Cancer)	HBCR Ratnagiri 2022	PBCR Ratnagiri 2017-18
	Female	Female
Rank	5	3
Number & % of total cases	17 (6.1%)	97 (9.1%)
Age-adjusted incidence rates per 100,000		4.7

**Table No. 125: Age distribution of cervix uteri cancer cases**

Age Group	Total	%
40-44	4	23.5
50-54	2	11.8
55-59	6	35.3
60-64	3	17.6
65-69	1	5.9
70-74	1	5.9
<b>Total</b>	<b>17</b>	<b>100.0</b>
<b>Mean age</b>	<b>55 years</b>	

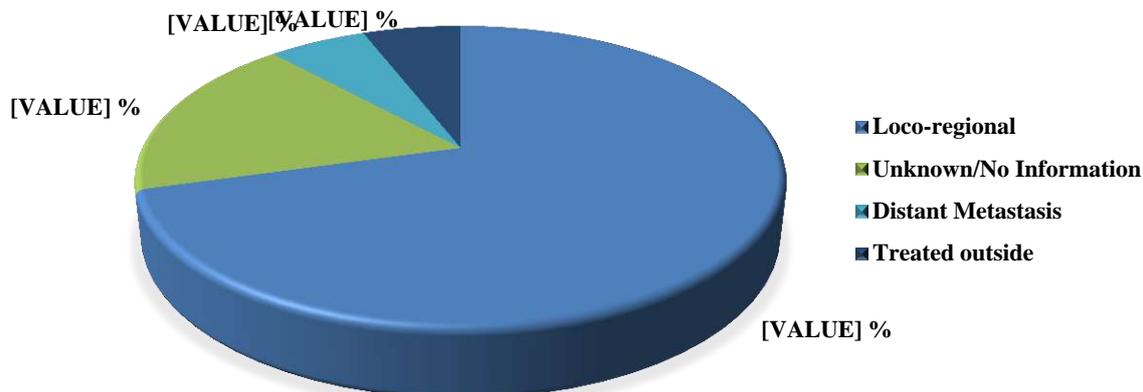
**Table No. 126: Cervix uteri cancer cases by district**

Districts	Total	%
Aurangabad	1	5.9
Raigad	2	11.8
Ratnagiri	11	64.7
Sindhudurg	3	17.6
<b>Total</b>	<b>17</b>	<b>100.0</b>

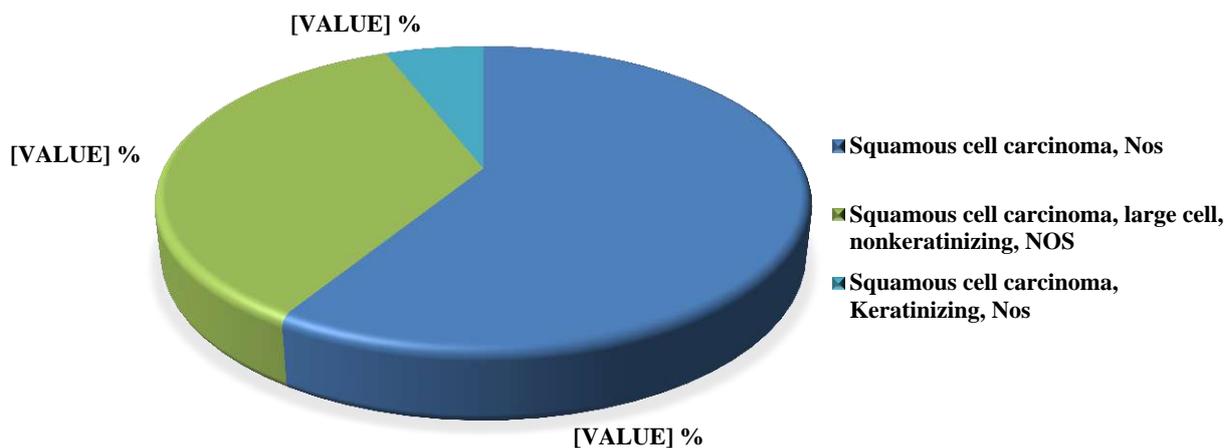
**Table No. 127: Cervix uteri cancer cases by clinical extent of disease**

Clinical Extent	Total	%
Loco-regional	12	70.6
Distant Metastasis	1	5.9
Treated outside	1	5.9
Unknown/No Information	3	17.6

<b>Total</b>	<b>17</b>	<b>100.0</b>
--------------	-----------	--------------

**Figure No. 51: Cervix uteri cancer cases by clinical extent of disease****Table No. 128: Cervix uteri cancer cases by histology**

ICD-O3	Histology	Total	%
8070	Squamous cell carcinoma, Nos	10	58.8
8071	Squamous cell carcinoma, Keratinizing, Nos	1	5.9
8072	Squamous cell carcinoma, large cell, nonkeratinizing, NOS	6	35.3
<b>Total</b>		<b>17</b>	<b>100.0</b>

**Figure No. 52: Cervix uteri cancer cases by histology****Table No. 129: Cervix uteri cancer cases by grade**

Grade	Total	%
Grade1: Well differentiated	1	5.9
Grade2: Moderately differentiated	6	35.3
Grade3: Poorly differentiated	9	52.9
Grade not mentioned, not stated or not applicable	1	5.9

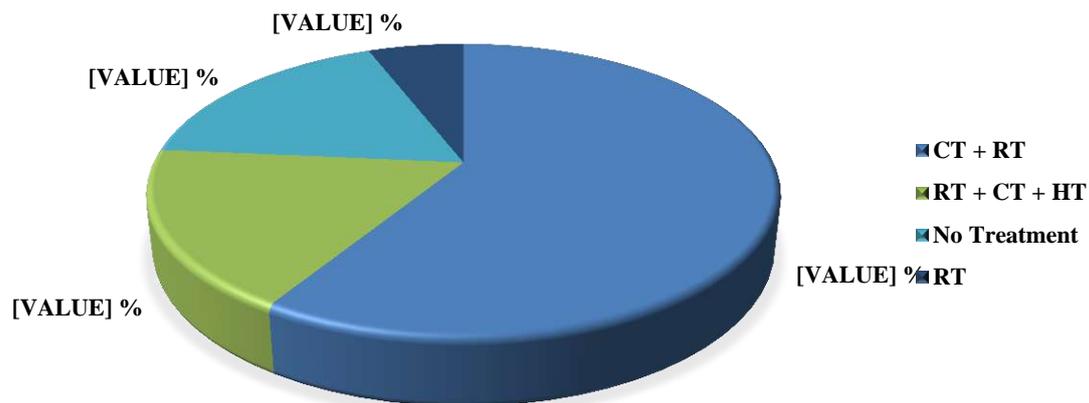
<b>Total</b>	<b>17</b>	<b>100.0</b>
--------------	-----------	--------------

**Table No. 130: Cervix uteri cancer cases by intention of treatment**

<b>Intent of Treatment</b>	<b>Total</b>	<b>%</b>
Curative	15	88.2
Palliative	2	11.8
<b>Total</b>	<b>17</b>	<b>100.0</b>

**Table No. 131: Cervix uteri cancer cases by type of treatment availed**

<b>Treatment</b>	<b>Total</b>	<b>%</b>
RT	1	5.9
CT + RT	10	58.8
RT + CT + HT	3	17.6
No Treatment	3	17.6
<b>Total</b>	<b>17</b>	<b>100.0</b>

**Figure No. 53: Cervix uteri cancer cases by type of treatment availed****Table No. 132: Treatment status of cervix uteri cancer cases**

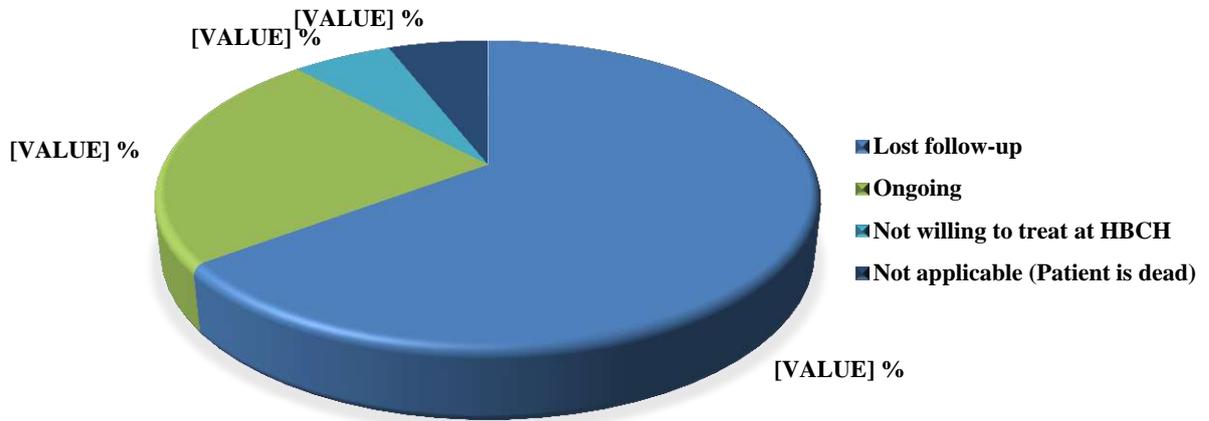
<b>Treatment Status</b>	<b>Total</b>	<b>%</b>
Complete	9	52.9
Incomplete	5	29.4
No treatment	3	17.6
<b>Total</b>	<b>17</b>	<b>100.0</b>

**Table No. 133: Follow-up status of cervix uteri cancer cases**

<b>Follow-up Status</b>	<b>Total</b>	<b>%</b>
Not willing to treat at HBCH	1	5.9
Lost follow-up	11	64.7

Ongoing	4	23.5
Not applicable (Patient is dead)	1	5.9
<b>Total</b>	<b>17</b>	<b>100.0</b>

**Figure No. 54: Follow-up status of cervix uteri cancer cases**



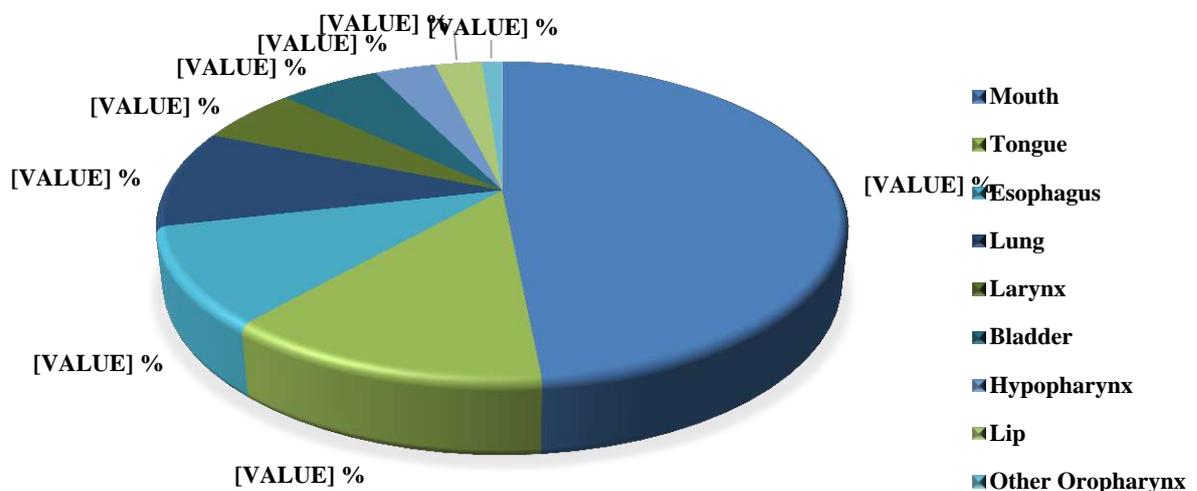
## 12. Tobacco Related Cancers

Of the total 528 cases, 262 (49.6%) were tobacco related cancer. In males out of 249, 163 (65.5%) and in female out of 279, 99 (35.5 %) were tobacco related cancers. Mouth, tongue, esophagus and lung were the predominant cancer among males and females. The details are mentioned in table no. 134 and figure 55.

**Table No. 134: Tobacco related cancer cases registered at BKL Walawalkar Hospital**

ICD-10	Male	%	Female	%	Total	%
Lip	4	2.5	3	3.0	7	2.7
Tongue	25	15.3	9	9.1	34	13.0
Mouth	78	47.9	49	49.5	127	48.5
Other Oropharynx	3	1.8	0	0.0	3	1.1
Hypopharynx	7	4.3	2	2.0	9	3.4
Esophagus	8	4.9	18	18.2	26	9.9
Larynx	13	8.0	2	2.0	15	5.7
Lung	15	9.2	11	11.1	26	9.9
Bladder	10	6.1	5	5.1	15	5.7
<b>All TRC Sites</b>	<b>163</b>	<b>65.5</b>	<b>99</b>	<b>35.5</b>	<b>262</b>	<b>49.6</b>
Other Cancers	86	34.5	180	64.5	266	50.4
All Cancers	249	100.0	279	100.0	528	100.0

**Figure No. 55: Tobacco related cancer cases registered at BKL Walawalkar Hospital**



## 13. Geriatric Cancers

As per WHO definition of Geriatric cancers in developing countries (cancer occurring over the age of 60 and above), a total of 224 cancer cases were recorded during the year 2022. Which included 118 males and 106 females. In males, mouth (21.2%) was the predominant site of cancer followed by lung (8.5%) whereas in females, cancer of mouth was the leading site (25.5%) followed by breast (19.8%). The details are presented in below table no.135.

**Table No. 135: Geriatric cancer cases registered at BKL Walawalkar Hospital**

ICD-10	Male	%	ICD-10	Female	%
Mouth	25	21.2	Mouth	27	25.5
Lung	10	8.5	Breast	21	19.8
Tongue	8	6.8	Lung	8	7.5
Rectum	8	6.8	Esophagus	7	6.6
Prostate	8	6.8	Ovary	7	6.6
<b>All Geriatric Cases</b>	<b>118</b>	<b>100.0</b>	<b>All Geriatric Cases</b>	<b>106</b>	<b>100.0</b>

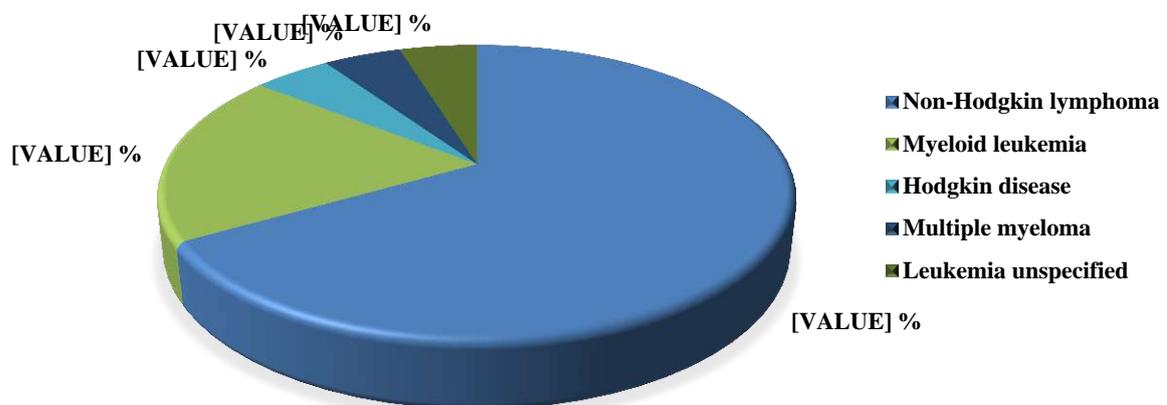
## 14. Hematological Cancers

In the year 2022, 1 case of Hodgkin disease, 14 cases of Non-Hodgkin Lymphoma, 1 case of multiple myeloma and 5 cases of Leukemia were registered at BKL Walawalkar Hospital. The details are presented in table no.136 and figure no. 56.

**Table No. 136: Hematological cancers registered at BKL Walawalkar Hospital**

ICD-10	Site	Male	%	Female	%	Total	%
C81	Hodgkin disease	0	0.0	1	11.1	1	4.8
C82-C86, C96	Non-Hodgkin lymphoma	9	75.0	5	55.6	14	66.7
C90	Multiple myeloma	0	0.0	1	11.1	1	4.8
C92-C94	Myeloid leukemia	2	16.7	2	22.2	4	19.0
C95	Leukemia unspecified	1	8.3	0	0.0	1	4.8
<b>Total</b>		<b>12</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>	<b>21</b>	<b>100.0</b>

**Figure No. 56: Hematological cancers registered at BKL Walawalkar Hospital**



## 15. Number of cancer cases by age group & site

In males, we have 249 cases and in female 279 cases. The cancer cases are by age-group and site with percentage of relative proportion of cancers of all sites. The details are shown in table no.137 and table no.138.

**Table No. 137: Number of cancer cases by age group and site- Males**

ICD-10	Site	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+	Total	%
C00	Lip	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	4	1.6
C01-C02	Tongue	0	0	0	0	0	0	2	1	1	7	4	2	5	3	0	0	25	10.0
C03-C06	Mouth	0	0	0	0	0	1	3	5	6	14	11	13	9	8	2	6	78	31.3
C10	Other Oropharynx	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	3	1.2
C12-C13	Hypopharynx	0	0	0	0	0	0	0	0	0	0	0	0	1	0	6	0	7	2.8
C15	Esophagus	0	0	0	0	0	0	0	0	1	0	0	2	0	3	1	1	8	3.2
C16	Stomach	0	0	0	0	0	0	1	0	2	0	3	0	1	0	0	0	7	2.8
C17	Small Intestine	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	2	0.8
C18	Colon	0	0	0	0	0	0	0	3	1	2	1	0	1	1	1	0	10	4.0
C19-C20	Rectum	0	0	0	0	0	0	0	0	2	2	1	1	3	2	1	2	14	5.6
C22	Liver	0	0	0	0	0	0	1	0	0	0	0	0	0	2	1	2	6	2.4
C23-C24	Gall Bladder	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.4
C25	Pancreas	0	0	0	0	0	0	0	0	0	0	0	1	1	3	0	0	5	2.0
C32	Larynx	0	0	0	0	0	0	0	0	2	1	1	2	2	4	0	1	13	5.2
C33-C34	Lung	0	0	0	0	0	0	0	1	0	1	2	1	4	2	3	1	15	6.0
C40-C41	Bone	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	2	0.8
C44	Other skin	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.4
C47 & C49	Conn. Soft tissue	1	0	0	0	0	1	0	0	0	1	0	1	1	0	0	0	5	2.0
C60	Penis	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0.8
C61	Prostate	0	0	0	0	0	0	0	0	0	0	0	1	0	3	2	3	9	3.6
C62	Testis	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	2	0.8
C64	Kidney	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	1.2
C67	Bladder	0	0	0	0	0	0	0	2	0	0	0	1	1	1	2	3	10	4.0
C70-C72	Brain, NS	2	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	4	1.6
C82-C86, C96	Non-Hodgkin lymphoma	0	0	0	1	0	0	0	0	1	0	0	1	3	2	1	0	9	3.6
C92-C94	Myeloid Leukemia	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2	0.8
C95	Leukemia Uns	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0.4
O & U	Other & Unspecified sites	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.4
<b>Grand Total</b>		<b>3</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>4</b>	<b>8</b>	<b>12</b>	<b>19</b>	<b>29</b>	<b>25</b>	<b>29</b>	<b>36</b>	<b>40</b>	<b>22</b>	<b>20</b>	<b>249</b>	<b>100.0</b>

\*O & U includes the sites (ICD-10: C26, C39, C48, C75, C76, C78, C79, C80, C97)

**Table No. 138: Number of cancer cases by age group and site- Females**

ICD-10	Site	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+	Total	%
C00	Lip	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3	1.1
C01-C02	Tongue	0	0	0	0	0	0	1	1	0	2	1	0	3	0	0	1	9	3.2
C03-C06	Mouth	0	0	0	0	0	1	1	3	2	5	5	5	4	10	7	6	49	17.6
C09	Tonsil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.4
C12-C13	Hypopharynx	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0.7
C15	Esophagus	0	0	0	0	0	0	2	0	0	3	3	3	2	1	3	1	18	6.5
C16	Stomach	0	0	0	0	0	1	0	0	0	2	0	2	0	1	1	0	7	2.5
C17	Small Intestine	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.4
C18	Colon	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	3	9	3.2
C19-C20	Rectum	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	0.7
C21	Anus	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0.4
C22	Liver	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0.7
C23-C24	Gall Bladder	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	0.7
C25	Pancreas	0	0	0	0	0	0	0	0	0	0	1	1	0	2	1	0	5	1.8
C32	Larynx	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	0.7
C33-C34	Lung	0	0	0	0	0	0	0	0	0	1	1	1	3	1	2	2	11	3.9
C40-C41	Bone	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0.4
C44	Other skin	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	0.7
C47 & C49	Conn. Soft tissue	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0.4
C50	Breast	0	0	0	0	0	1	3	8	10	15	18	11	8	3	4	6	87	31.2
C52	Vagina	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0.7
C53	Cervix uteri	0	0	0	0	0	0	0	0	4	0	2	6	3	1	1	0	17	6.1
C54	Corpus uteri	0	0	0	0	0	0	0	1	2	1	0	1	1	1	0	0	7	2.5
C56	Ovary	0	0	0	0	0	1	0	0	2	4	2	3	2	2	1	2	19	6.8
C64	Kidney	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0.4
C67	Bladder	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	3	5	1.8
C70-C72	Brain, NS	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0.7
C81	Hodgkin disease	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0.4
C82-C86, C96	Non-Hodgkin lymphoma	0	0	0	0	0	0	1	1	0	0	1	0	1	1	0	0	5	1.8
C90	Multiple myeloma	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0.4
C92-C94	Myeloid Leukemia	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2	0.7
O & U	Other & Unspecified sites	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	0.7
<b>Grand Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>12</b>	<b>16</b>	<b>24</b>	<b>37</b>	<b>41</b>	<b>39</b>	<b>32</b>	<b>25</b>	<b>23</b>	<b>26</b>	<b>279</b>	<b>100.0</b>

\*O &amp; U includes the sites (ICD-10: C26, C39, C48, C75, C76, C78, C79, C80, C97)

## 16. References

1. Fritz et al. International Classification of Diseases- Oncology, Third edition. World Health Organisation, Geneva (2013).
2. CanReg5 Open Source Software: International Agency for Research on Cancer Lyon, France (<http://www.iacr.com.fr/CanReg5/CanReg5-Setup.zip>)
3. IARC/IACR Check Program (<http://www.iacr.com.fr/files/IARCcrgToolsSetup213.zip>)
4. Sarade M, Bhojne S, Lokhande D, Patil S, Patil N, Banavali S, Budukh A, Dikshit R and Badwe R, Cancer Incidence and Mortality in Ratnagiri district, Maharashtra, India (2017-2018), Tata Memorial Centre, Mumbai (2023).
5. <https://walawalkarhospital.com>.

## 17. Acknowledgements

It is an immense pleasure to bring out the report of ‘Hospital Based Cancer Registry, 2022’, which has been made possible by the valuable contribution of several persons.

First and foremost, we would like to thank the cancer patients whose data were included in the report. We acknowledge the tireless efforts of the registry staff for the enormous task of compiling patient data from various hospital departments. We would also like to thank the hospital staff for their support in providing the required data.

We are very much grateful to Dr. Shripad Banavali (Oncologist & Director Academic, TMC) for his visionary guidance for achieving optimal scientific outputs through research activities at BKLW Hospital.

We acknowledge the vital and supportive role of the TMH Management, Scientific and technical staff of TMH, CCE.

We want to thank our experts and reviewers on cancer and investigators for giving their valuable time and critically reviewing the report’s chapters.

We hope that this report will be widely used to improve cancer care and survival in India.



**“Cancer is curable if detected early”**