



**RAWALPINDI MEDICAL UNIVERSITY  
CENTER FOR LIVER AND DIGESTIVE DISEASE**

**Audit Report 2020- 2022**



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وَمَا كَانَ لِنَفْسٍ أَنْ يَبْذُرَ نَبَاتًا وَلَا حَبًّا وَلَا نَبَاتًا وَلَا شَجَرًا إِلَّا بِإِذْنِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

اور جو لوگوں کو فائدہ پہنچاتا ہے وہ روئے زمین پر قائم رہتا ہے (الرعد: ۱۷)

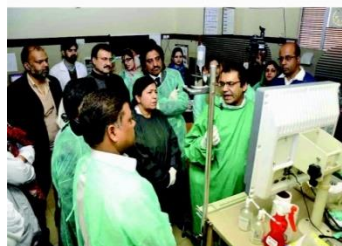
Which is for the good of mankind remains in the earth

# Mission Statement

- To provide diagnosis and curative services to the patients of GI and Liver Diseases particularly Hepatopancreatobiliary Diseases and Hepaocellular Carcinoma (Liver Cancer) in the Northern part of Pakistan.
- To impart advance training to the GI Fellows and specialists in the field of Gastroenterology and hepatology.
- To establish clinical research in the field of Gastroenterology and Hepatology.
- To develop network with national and international Center and Societies of GI and Liver Diseases.

## Vision and Value

- We work for excellence.
- We work as a team.
- Patient is our priority.
- We are lifelong learners.



# FACULTY

**Prof. Dr. Muhammad Umar**  
Sitara-i-Imtiaz  
Vice Chancellor & CEO  
Professor of Medicine  
Rawalpindi Medical University  
Head of Department  
Centre for Liver and Digestive Disease  
(CLD) Holy Family Hospital, Rawalpindi



**Prof. Dr. Bushra Khaar**  
BSc, MBBS, FCPS, FRCP, FACP  
Professor Emeritus of Medicine  
Consultant Gastroenterologist  
and Hepatologist



**Dr. Tanveer Hussain**  
MBBS, CHPE, FCPS, Medicine  
FCPS Gastroenterology  
Associate professor Center for Liver and  
Digestive Disease (CLD)  
Holy Family Hospital, Rawalpindi



**Dr. Tayyab Saeed Akhter**  
MBBS, FCPS (Internal Medicine)  
Senior Registrar  
Center for Liver and Digestive Disease  
(CLD) Holy Family Hospital, Rawalpindi



**Dr. Aqsa Naseer**  
Senior Registrar  
MBBS, FCPS  
Center for Liver and Digestive Disease  
(CLD) Holy Family Hospital, Rawalpindi



**Dr. Anum Abbas**  
Senior Registrar  
MBBS, FCPS  
Center for Liver and Digestive Disease  
(CLD) Holy Family Hospital, Rawalpindi



**Dr. Sadia Ahmed**  
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Center for Liver and Digestive Disease  
(CLD) Holy Family Hospital, Rawalpindi



**Dr. Javaria Khan**  
Senior Registrar  
MBBS, FCPS  
Center for Liver and Digestive Disease  
(CLD) Holy Family Hospital, Rawalpindi



**Dr. Misbah Noreen**  
Senior Registrar  
MBBS, FCPS  
Center for Liver and Digestive Disease  
(CLD) Holy Family Hospital, Rawalpindi



**Dr. Gul Nisar**  
WMO  
Center for Liver and Digestive Disease  
(CLD) Holy Family Hospital, Rawalpindi



# VISITING FACULTY

**Gen. Tassawar Hussain**  
Rawalpindi

**Brig. Amjad Salamat**  
Rawalpindi

**Prof. Anwaar A. Khan**  
Lahore

**Prof. Waseem Uddin**  
Wah Cantt.

**International**

**Dr. David Carre Lock, USA**

**Dr. Khalid Hassan, USA**

**Dr. Asif Abbas Naqvi, UK**

**Dr. Ali Siddiqui, USA**

**Dr. Nadeem Tahami, UK**

**Dr. Ishfaq Ahmad, UK**

# A Success story of 38 Years



**1985**



There was no specialty of gastroenterology and hepatology in Rawalpindi region. The effort started, we visited different Centre of world like Cornell University hospital, New York USA, First Tiangin hospital China, Kings College University Hospital UK, North West University Hospital, Chicago USA and many others finally able to established the start of center for liver and Digestive Diseases, Holy Family Hospital, Rawalpindi.

The success story of Establishment of Gastroenterology and Hepatology services started in 1985 when we did FCPS in General Medicine and want to do specialty Training



**1992**

**2008**

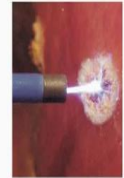
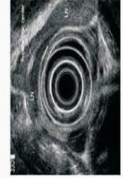


**2011**



# Facilities

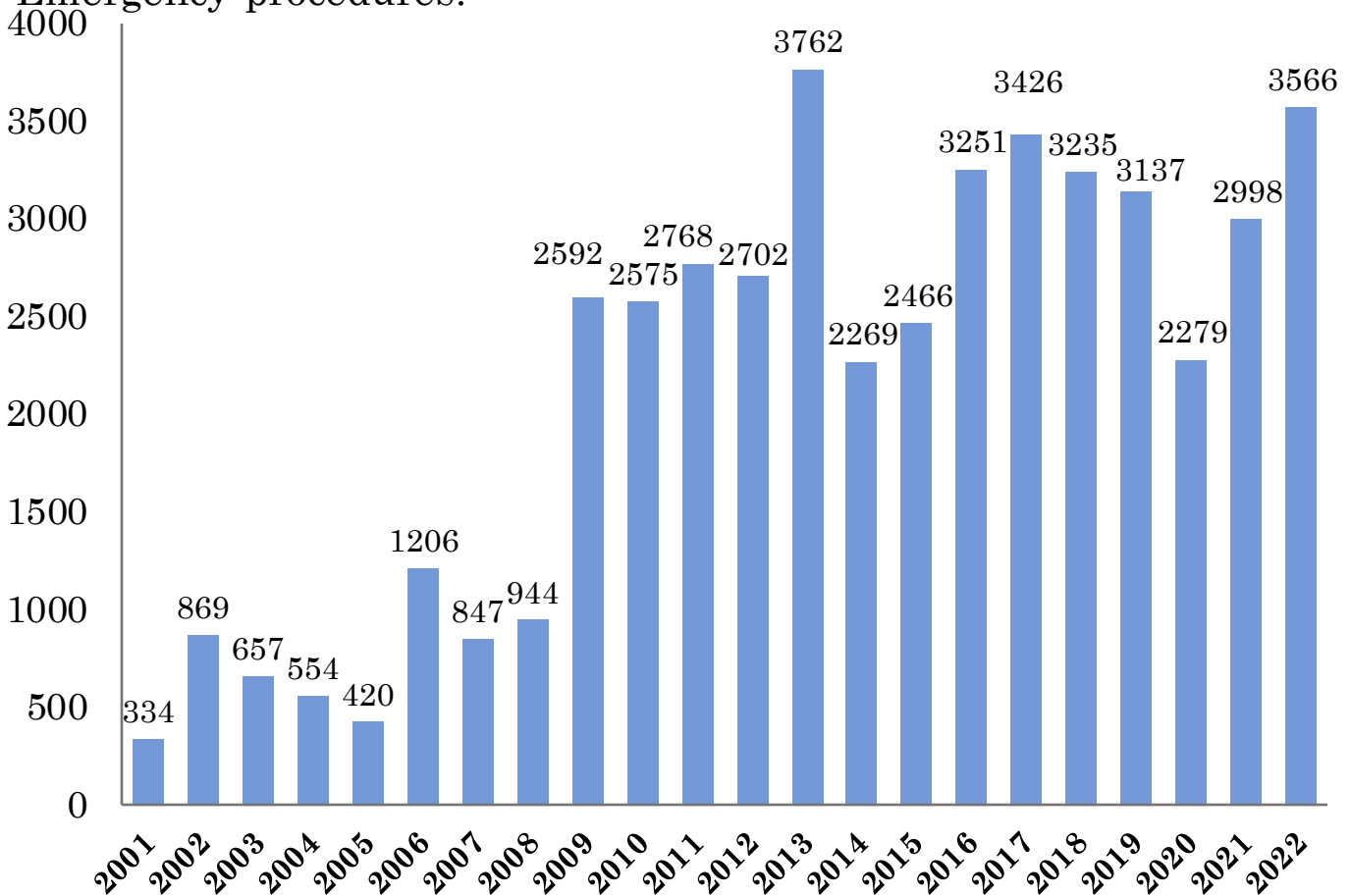
- Endoscopic Retrograde Cholangiopancreatography (ERCP)
- Endoscopic Ultrasound (EUS)
- Radiofrequency Ablation (RFA)
- Transcatheter Arterial Chemoembolization (TACE)
- Transjugular intrahepatic portosystemic shunt (TIPS)
- Argon Plasma Coagulation (APC)
- Variceal Band Ligation
- Gastric Glue Injection
- Endo Loop
- Polypectomy
- Endoscopic Mucosal Resection (EMR)
- Polypectomy
- Esophageal & Duodenal Stenting
- Percutaneous Endoscopic Gastrectomy (PEG)
- Endoscopic Mucosal Resection (EMR)
- Endoscopic Cyst Drainage



# Endoscopy Audit

Holy Family Hospital is providing basic upper GI Endoscopic services for more than 20 years. With the establishment of Center Liver and Digestive Diseases be services as further evolved not only to worlds to patients benefits but also improved training services for the health care community.

The center has set a bench mark by introducing the first of its kind Endoscopy Diploma Courses for Doctors and Nursing Staff. About 2200 procedures have been performed in 2020, 3000 in 2021 and more than 3500 cases including diagnostic as well as therapeutic UGI Endoscopies have been performed in the year 2022 respectively. The center provides its UGI endoscopic services 6 days a week and on call team is available round the clock, 24/7 for Emergency procedures.

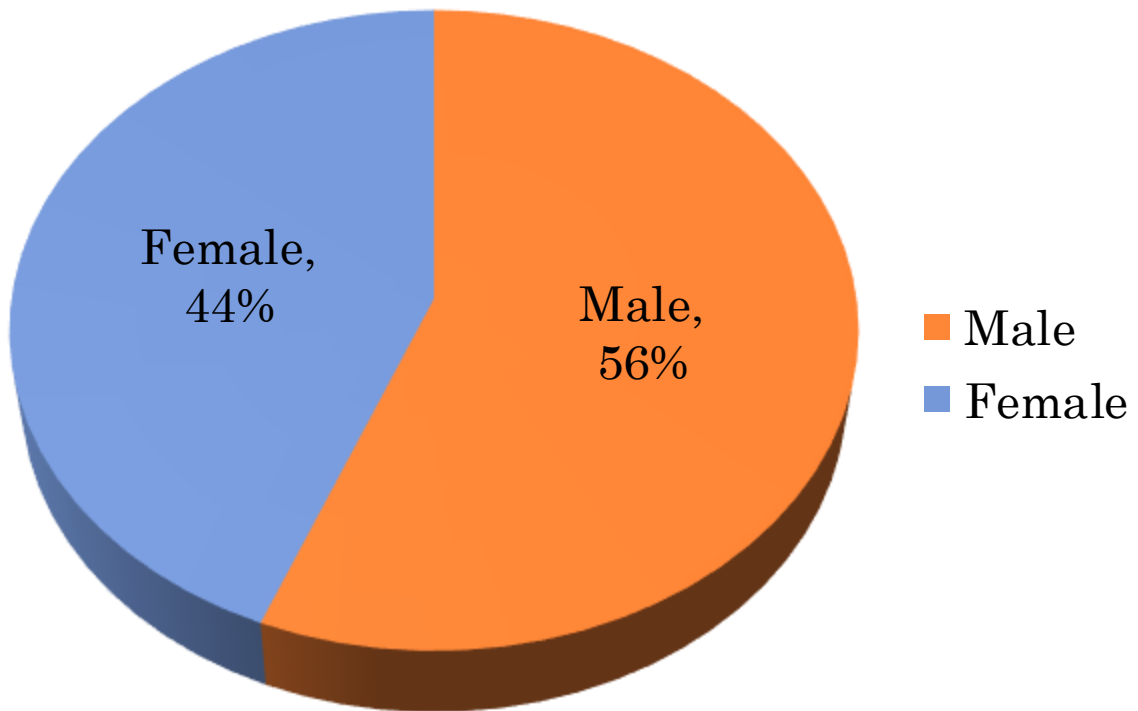


**2020**

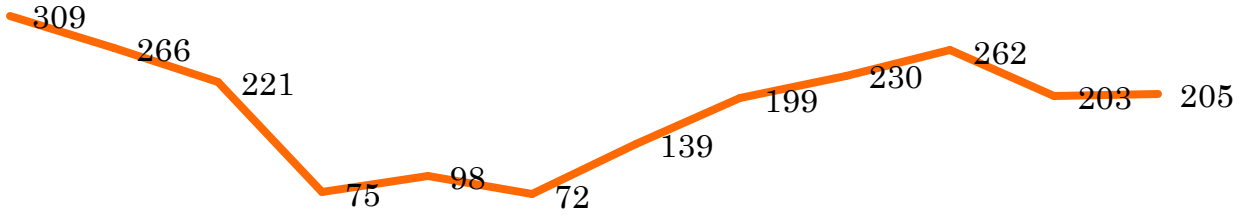


# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION

<b>Total No of Patients</b>	<b>2279</b>
<b>Male</b>	<b>1278</b>
<b>Female</b>	<b>1001</b>

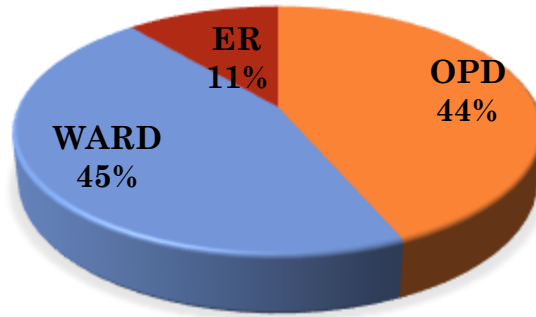


# MONTHLY DISTRIBUTION.

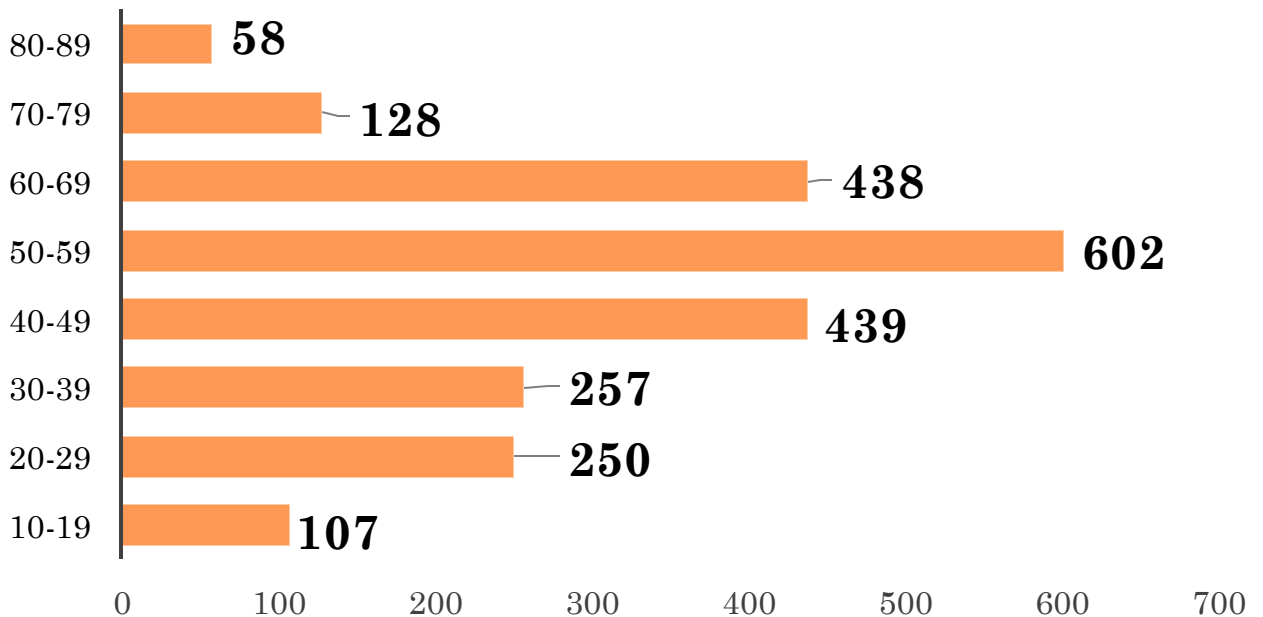


Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

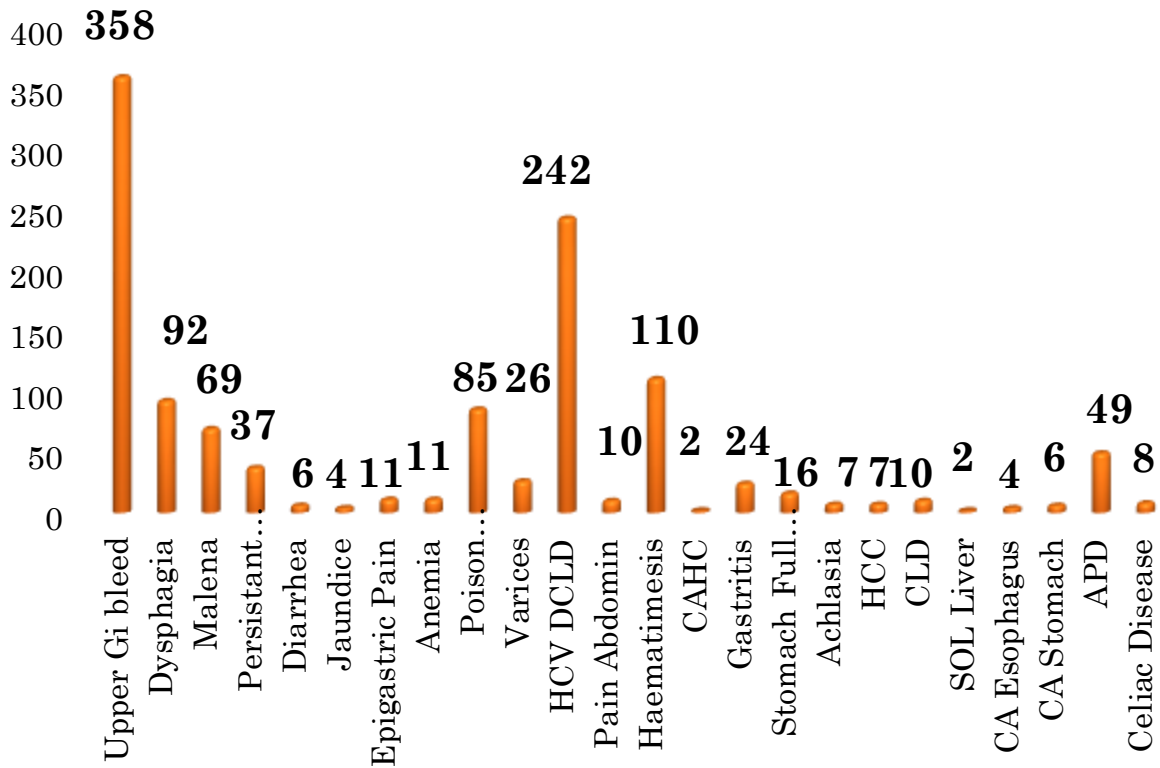
## OPD/WARD/ER



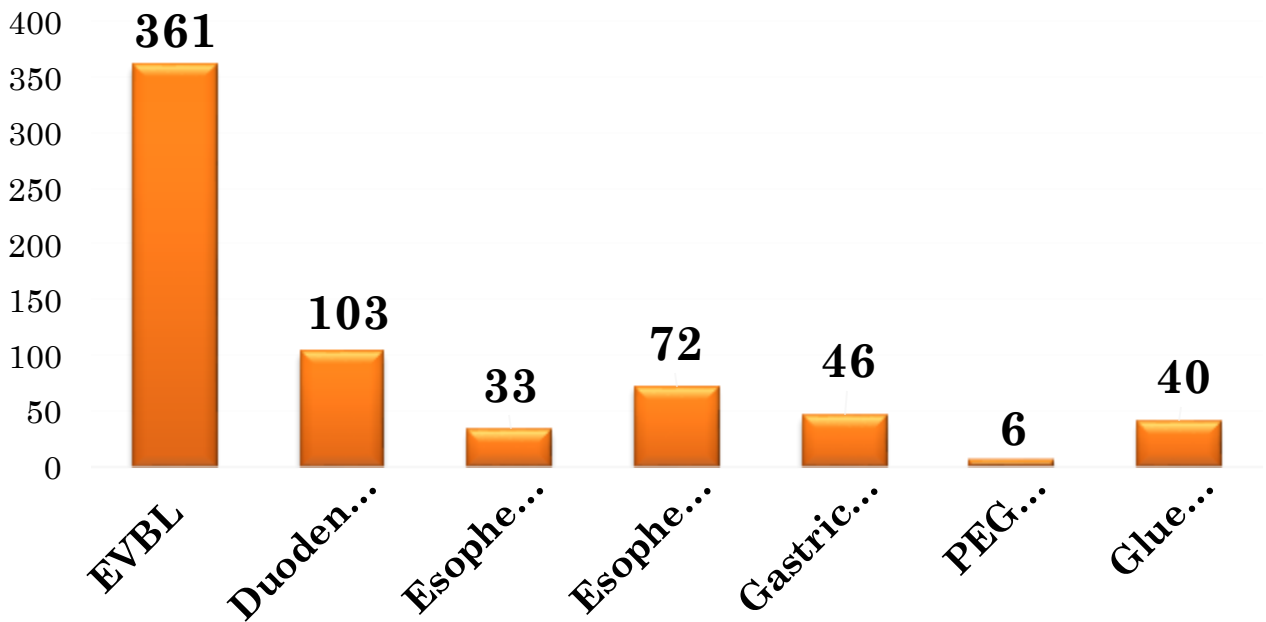
## AGE WISE DISTRIBUTION



# ENDOSCOPY INDICATIONS

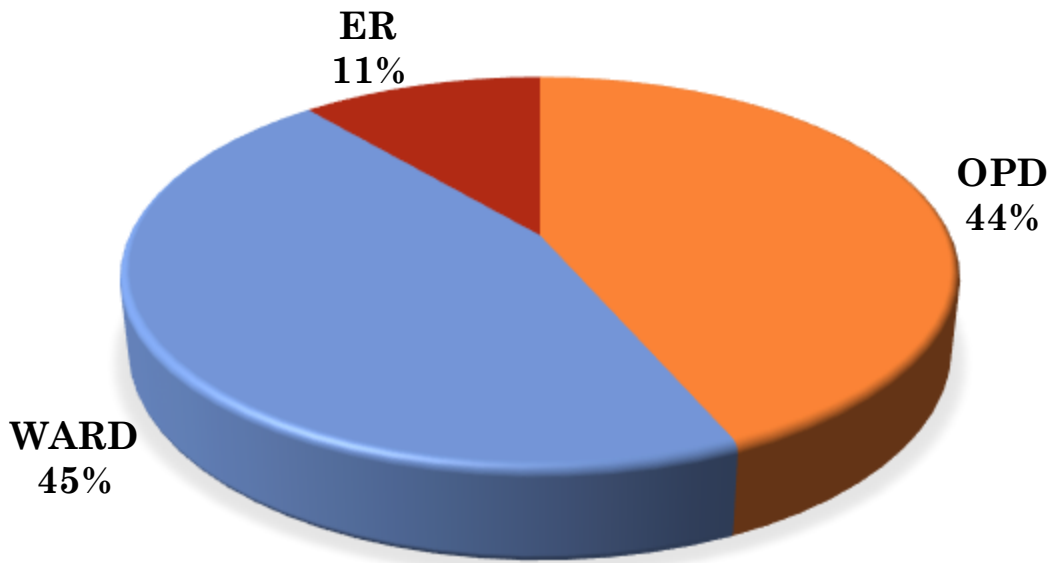


# ENDOSCOPY INTERVENTIONS

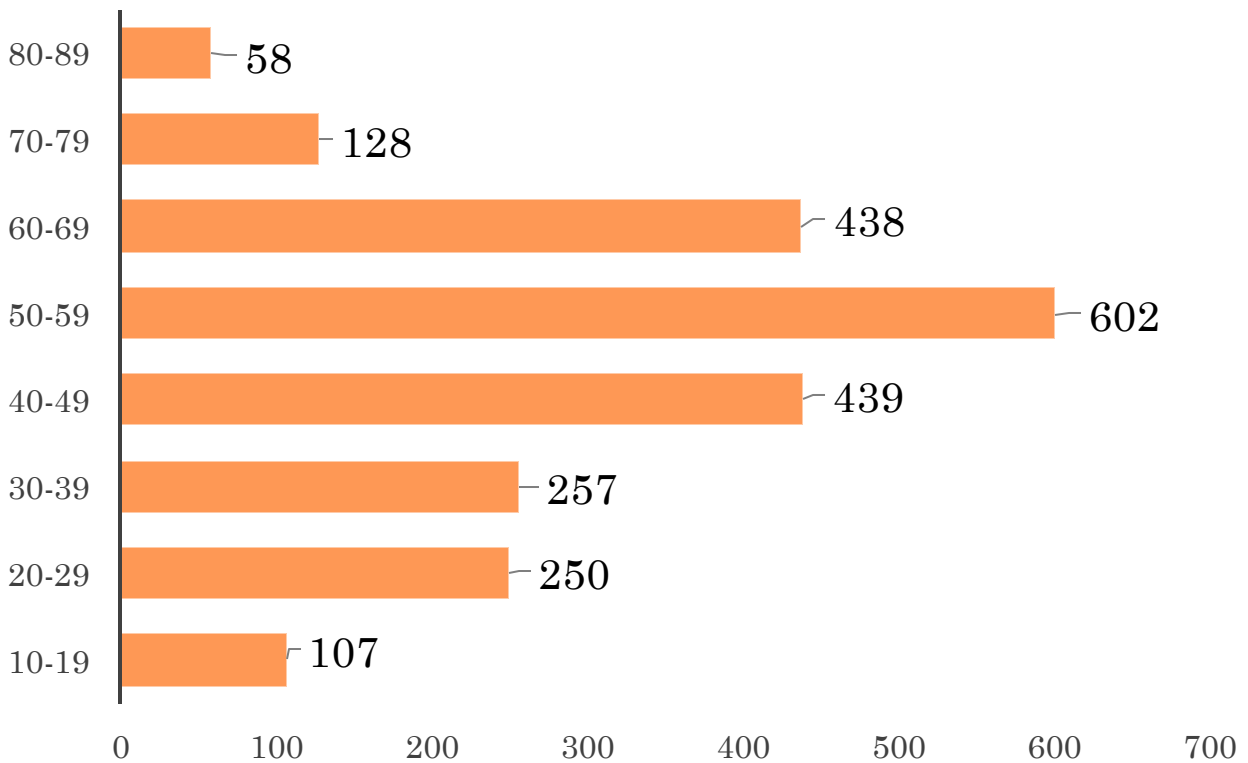


**2021**

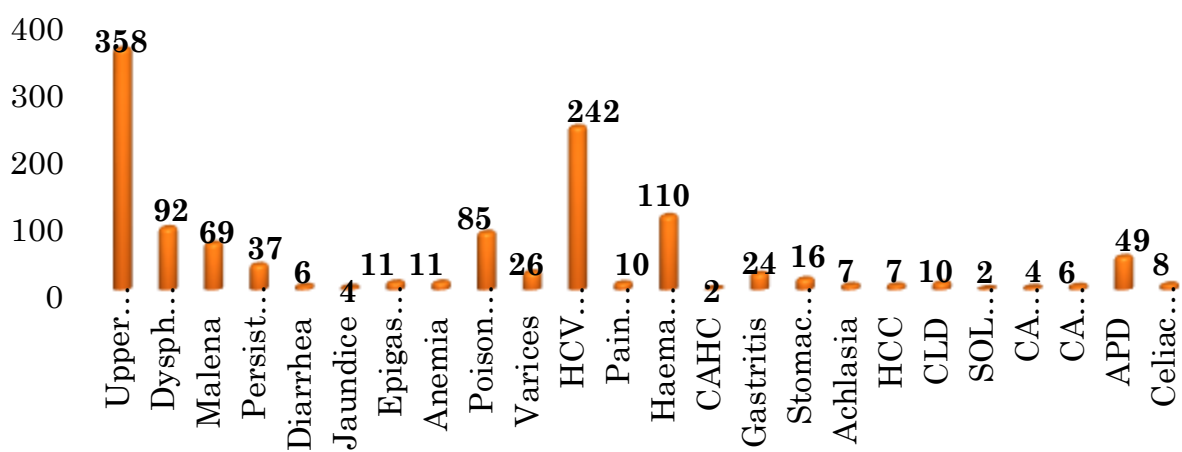
# OPD/WARD/ER



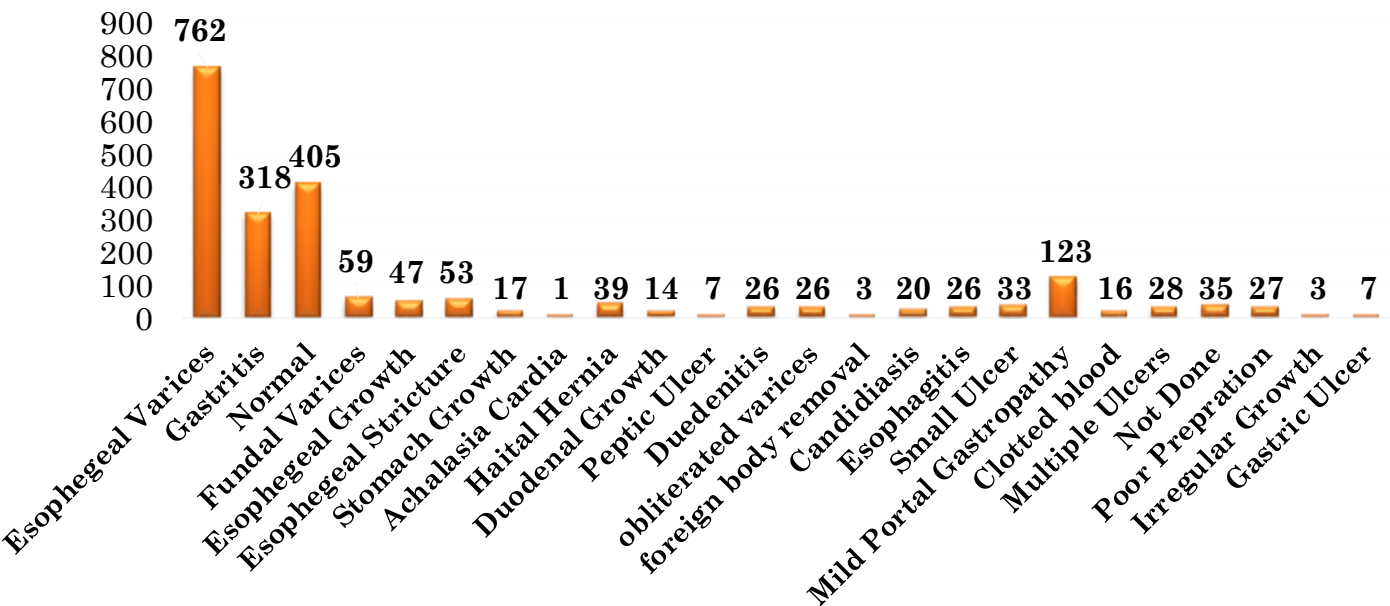
# AGE WISE DISTRIBUTION



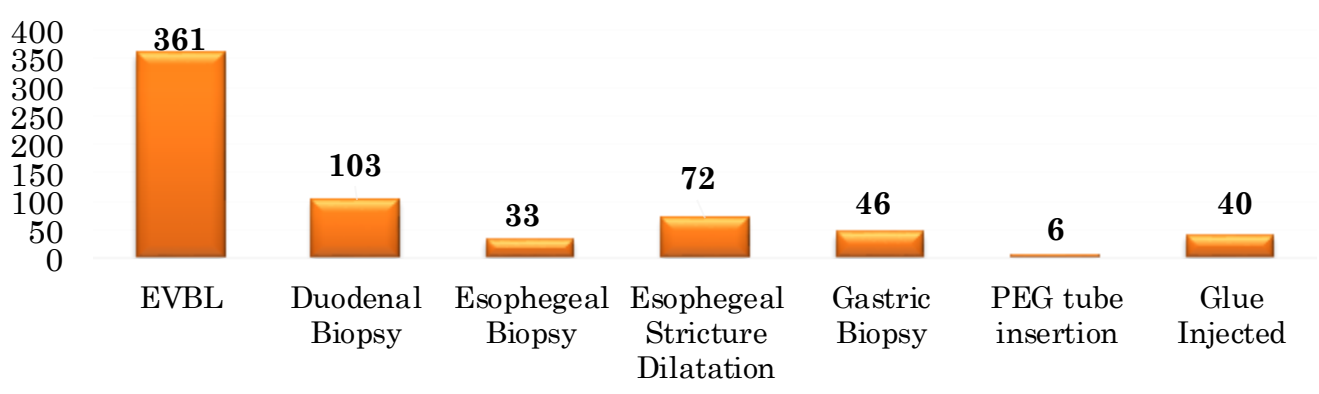
# ENDOSCOPY INDICATIONS



# ENDOSCOPY FINDINGS

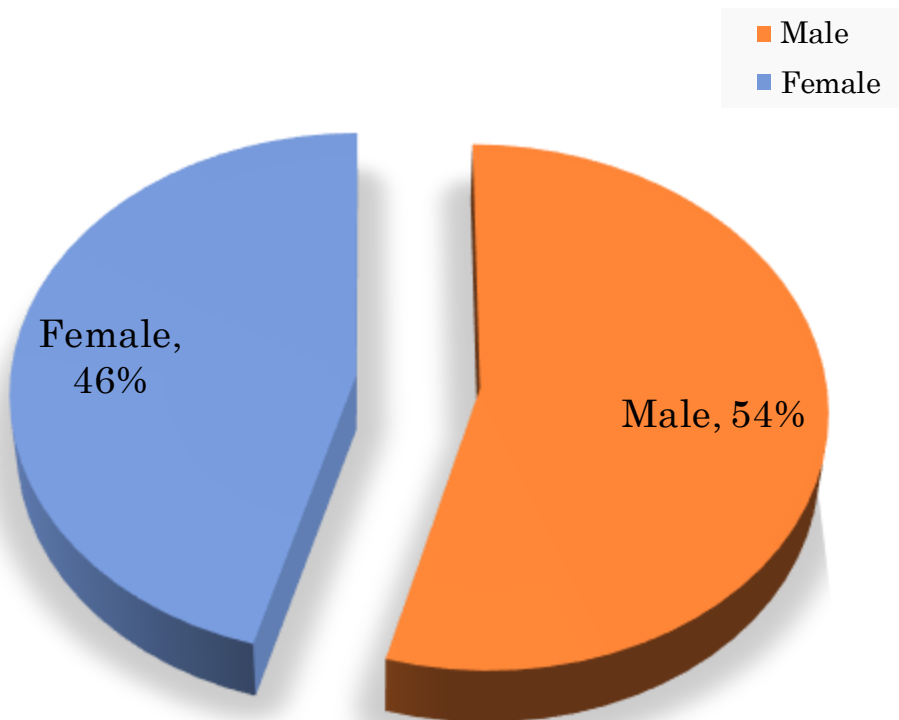


# ENDOSCOPY INTERVENTIONS

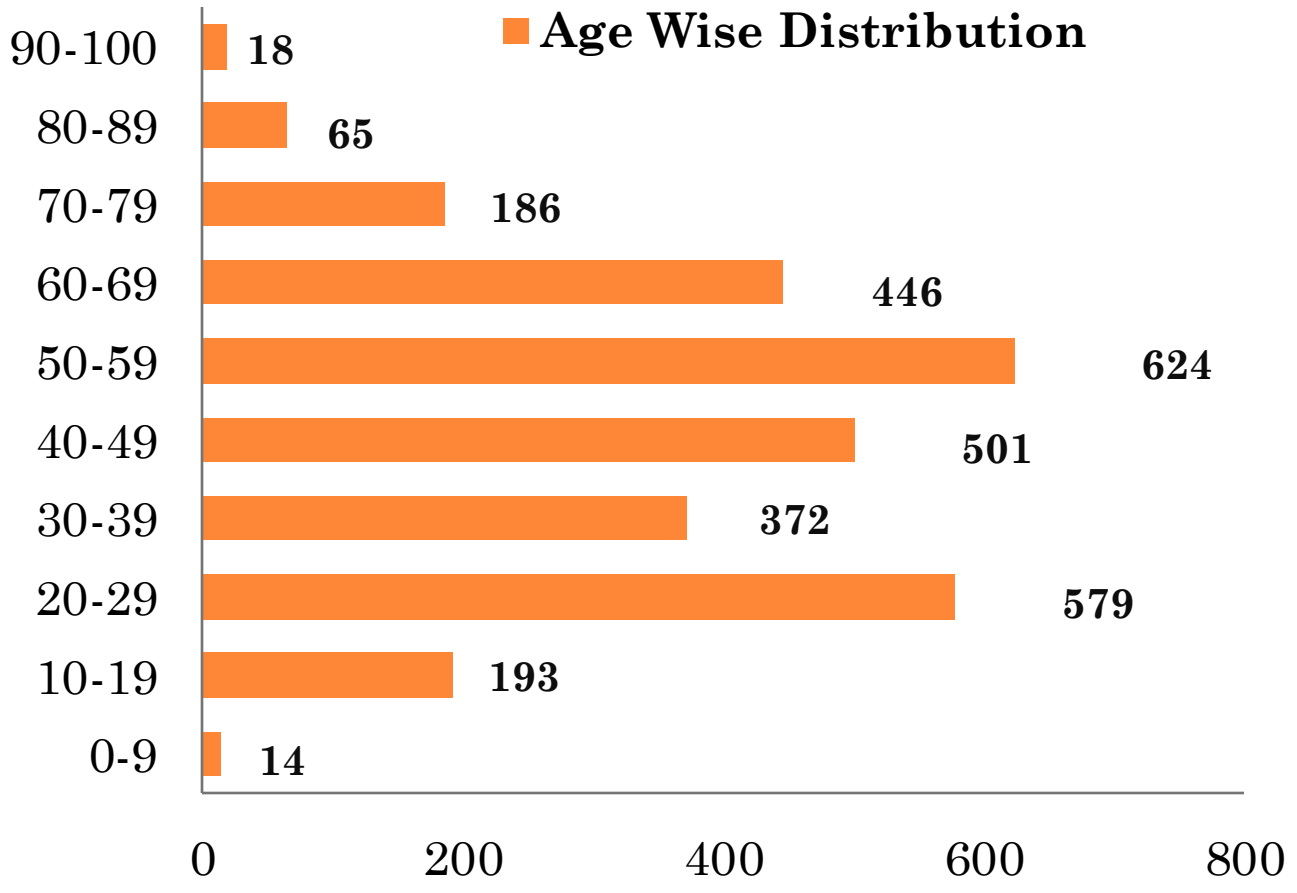
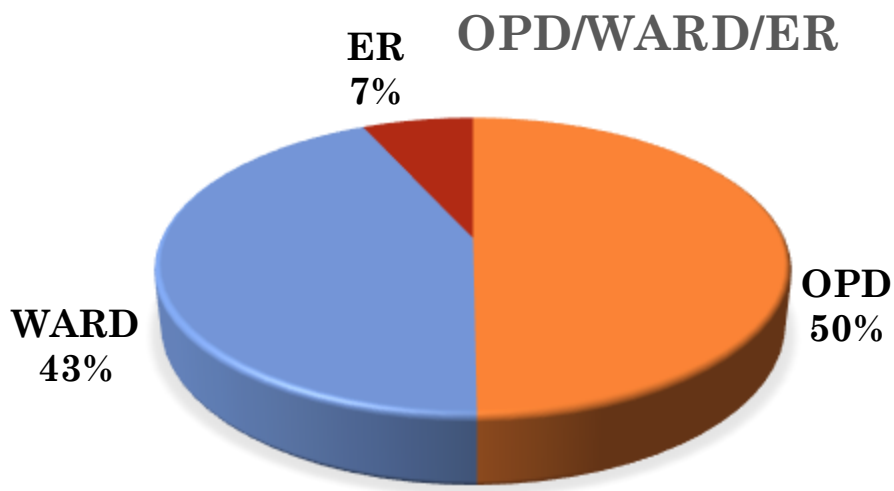


# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION

Total No of Patients	2998
<i>Male</i>	<i>1632</i>
<i>Female</i>	<i>1366</i>

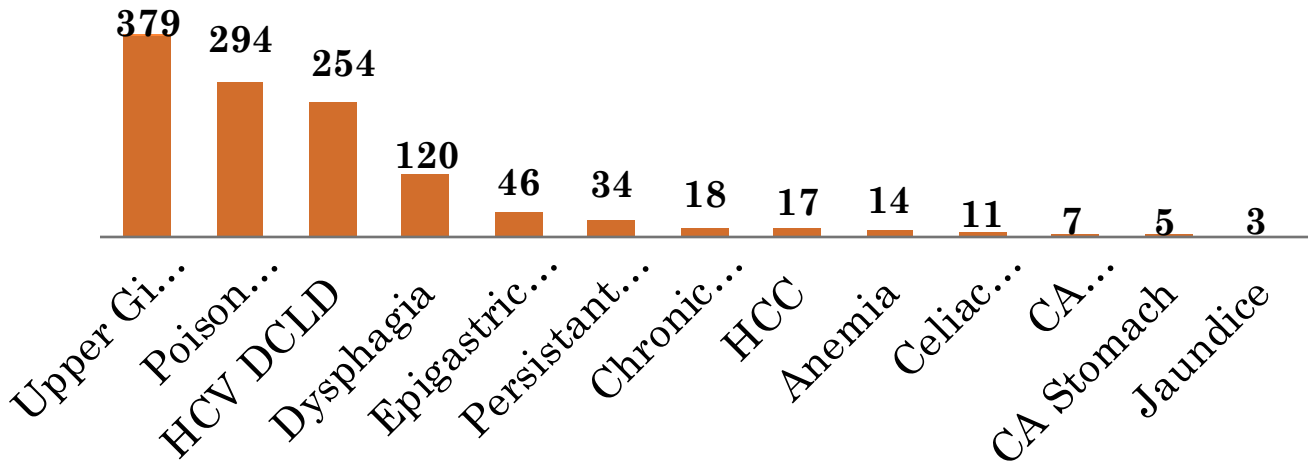


# PATIENT WITH AGE WISE DISTRIBUTION

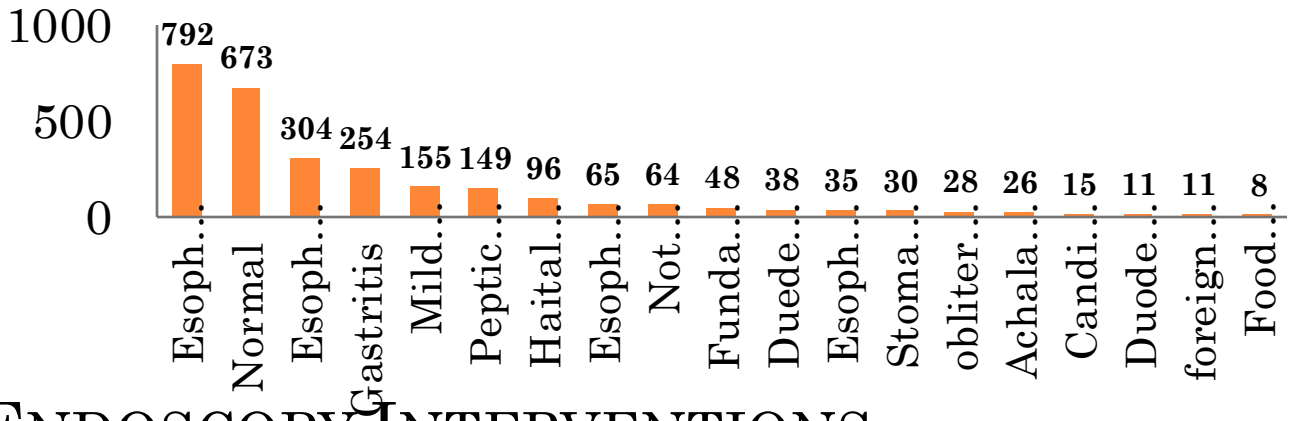




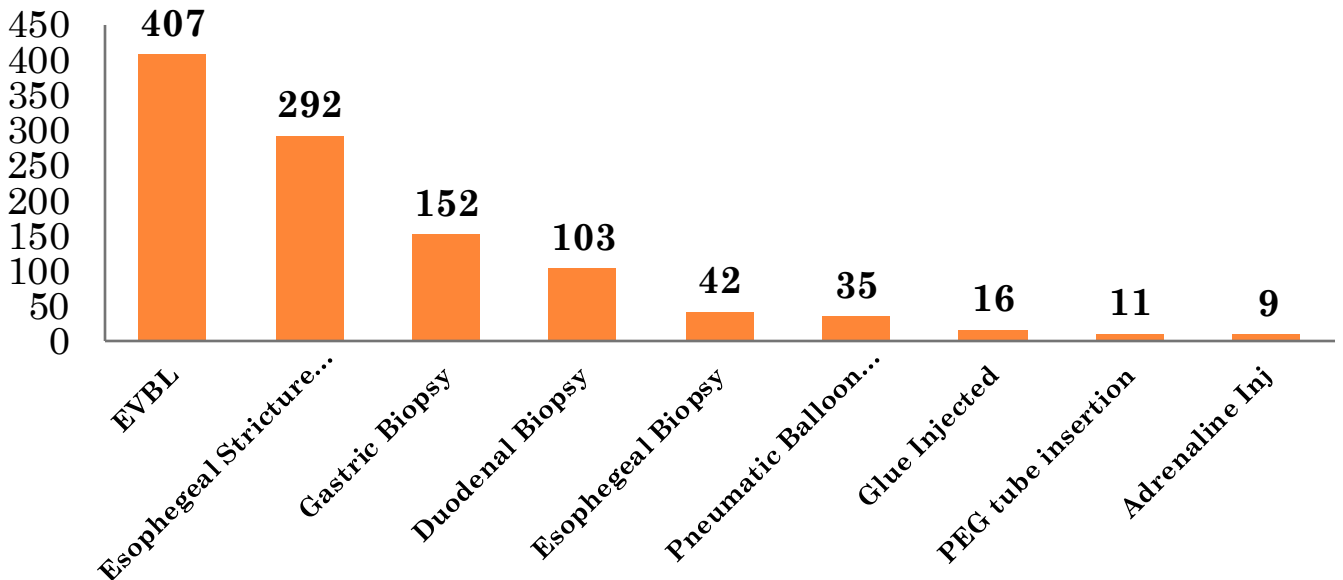
# ENDOSCOPY INDICATIONS



# Endoscopy Findings



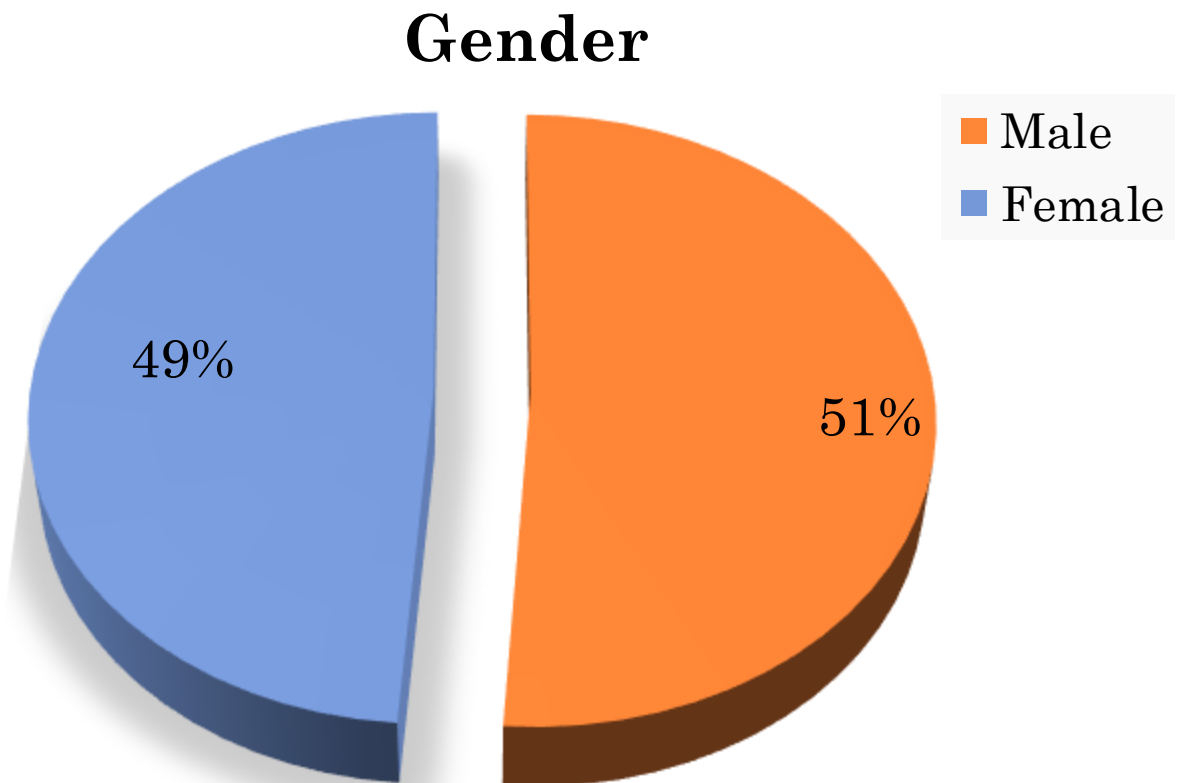
# ENDOSCOPY INTERVENTIONS



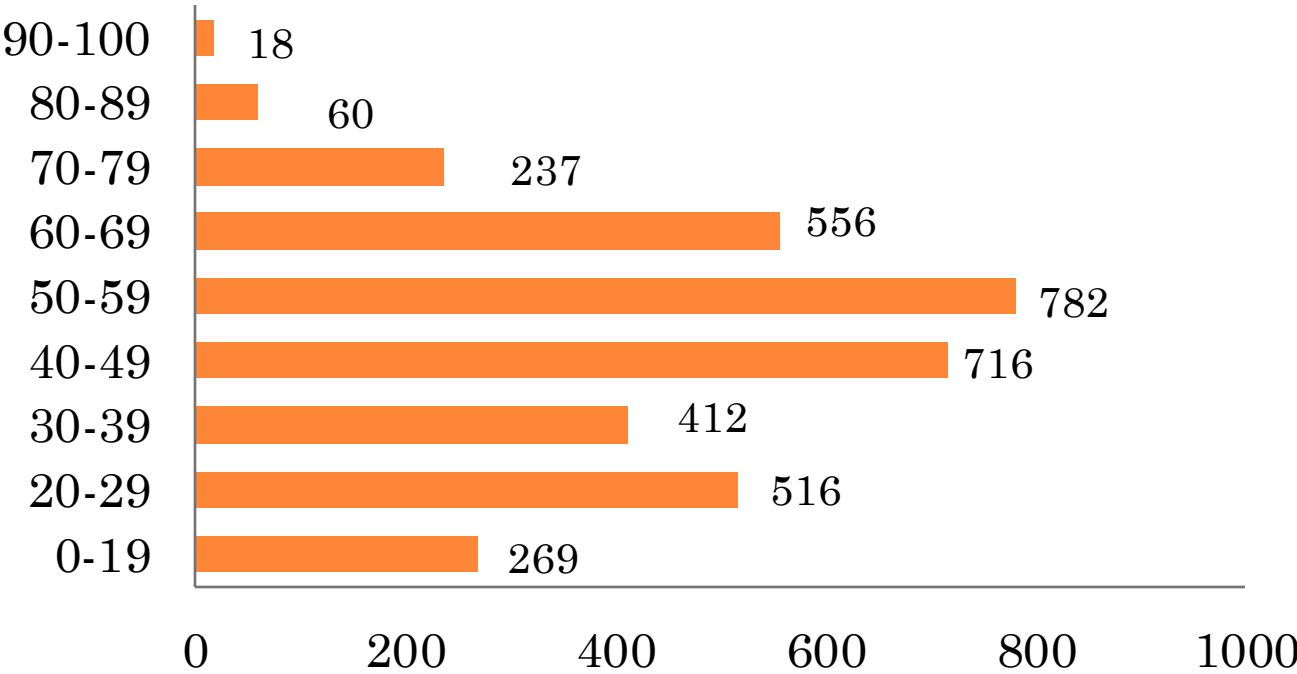
**2022**

# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION

Total No of Patients	3566
Male	1824
Female	1742

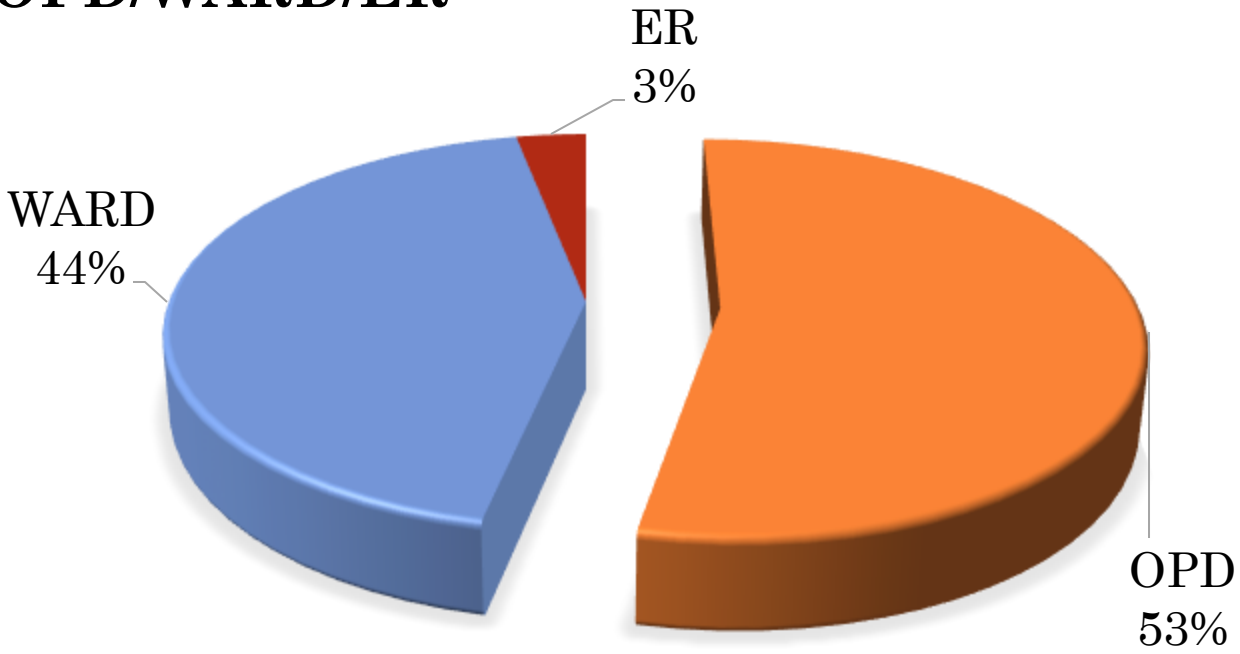


# PATIENT AGE DISTRIBUTION

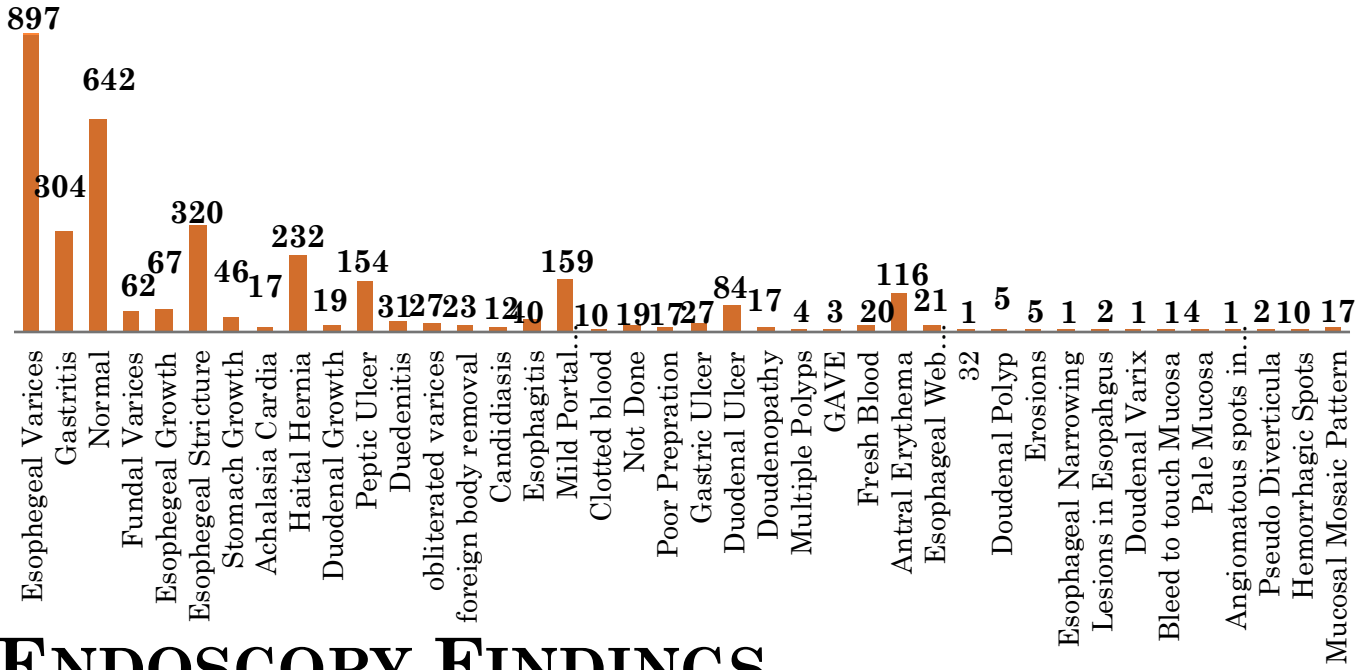


# PATIENT REFERRAL SOURCE

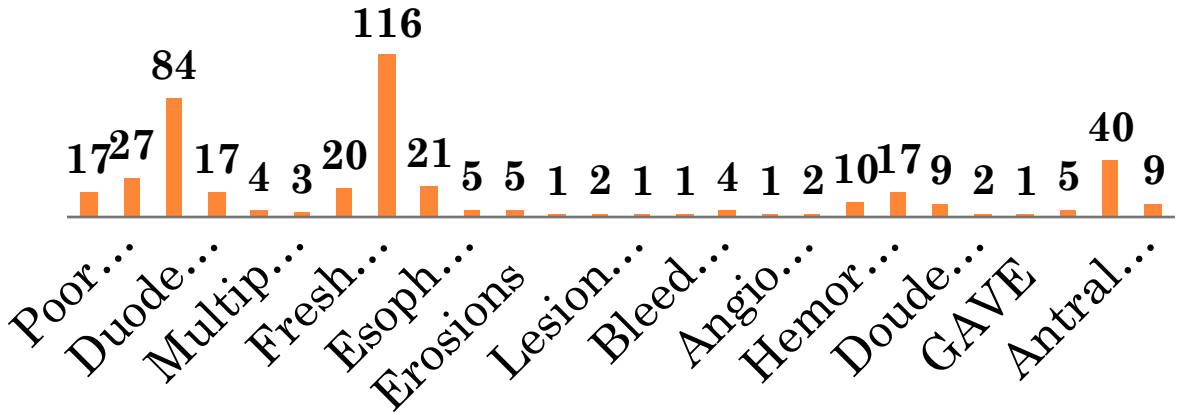
## OPD/WARD/ER



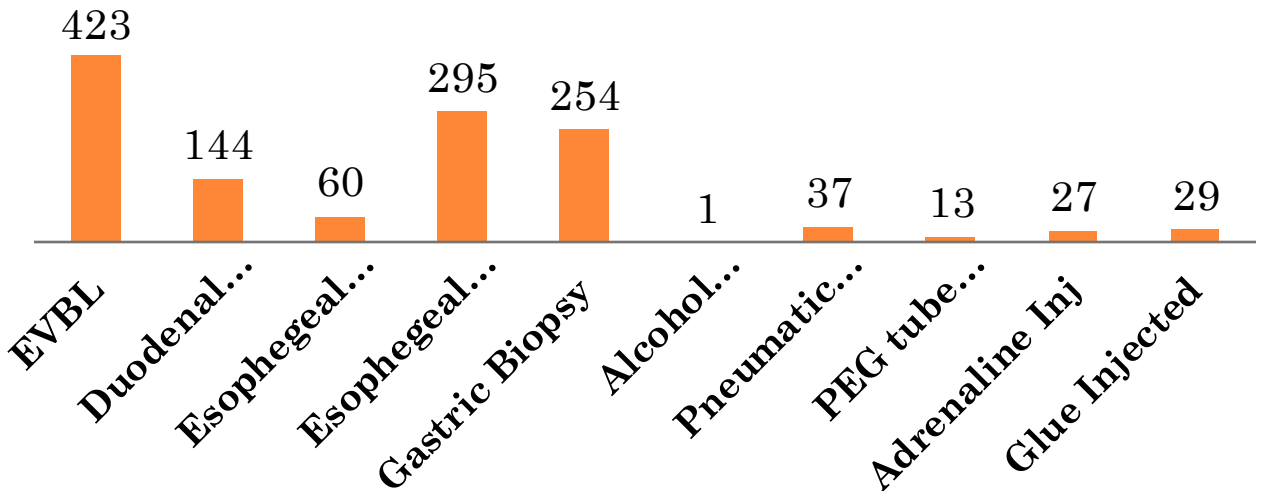
# ENDOSCOPY INDICATIONS



# ENDOSCOPY FINDINGS



# ENDOSCOPY INTERVENTIONS



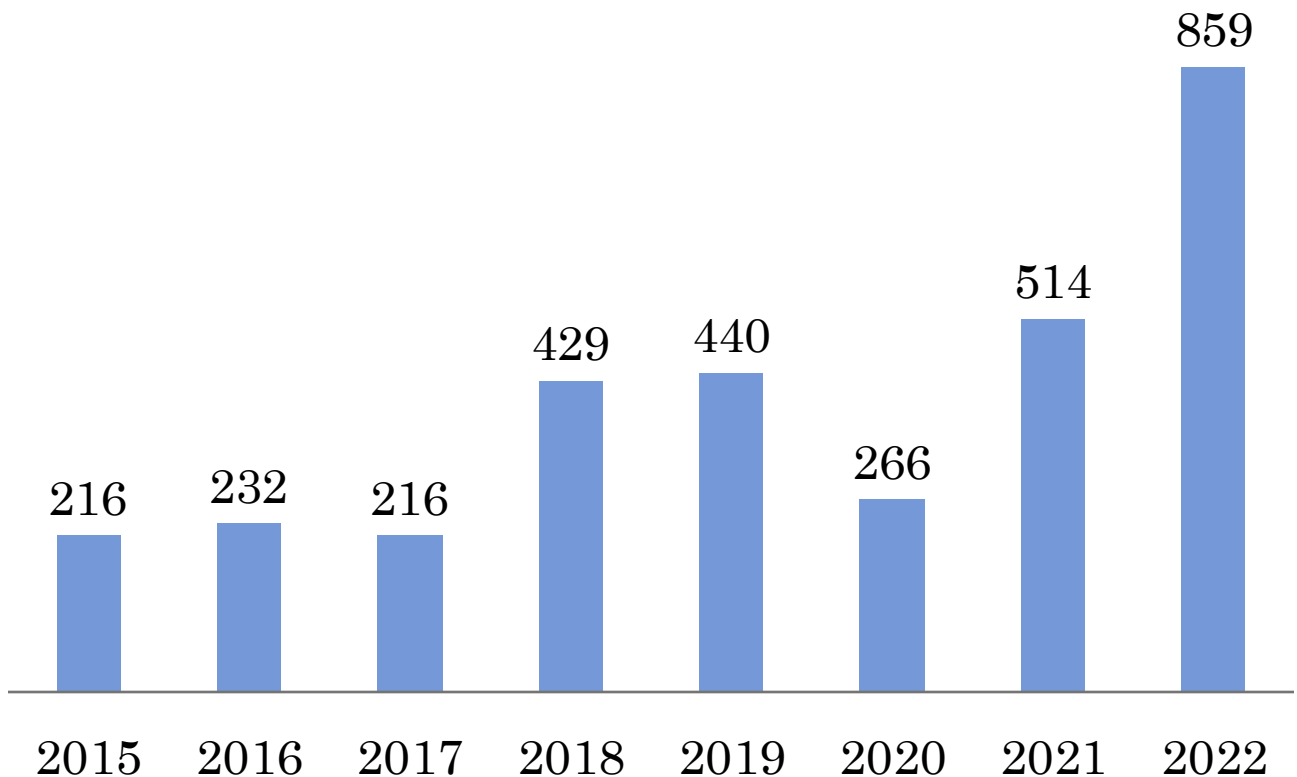
# Colonoscopy Audit

Colonoscopy is a common GI procedure. It is Diagnostic as well as therapeutic day care Procedure with utmost importance in screening and surveillance of colon cancer.

At CLD, 266 colonoscopies performed in 2020, 514 in 2021 whereas during the year 2022 , 859 pts. underwent colonoscopy, which is the highest number in the last 5 years. This decline in number of cases during 2020-21 is likely due to limited entertainment of only priority cases during COVID era.

In 2022 out of the total 510 were Male and 349 were Females. The most common indication was per rectal bleed and the commonest positive finding was hemorrhoids followed by growth and polyp. 231 patients didn't reveal any abnormality and cecal intubation was successful in 313 patients only.

The audit report suggests a more intense supervised approach in the colonoscopy to improve the success rate and avoid chances of missing any lesion.

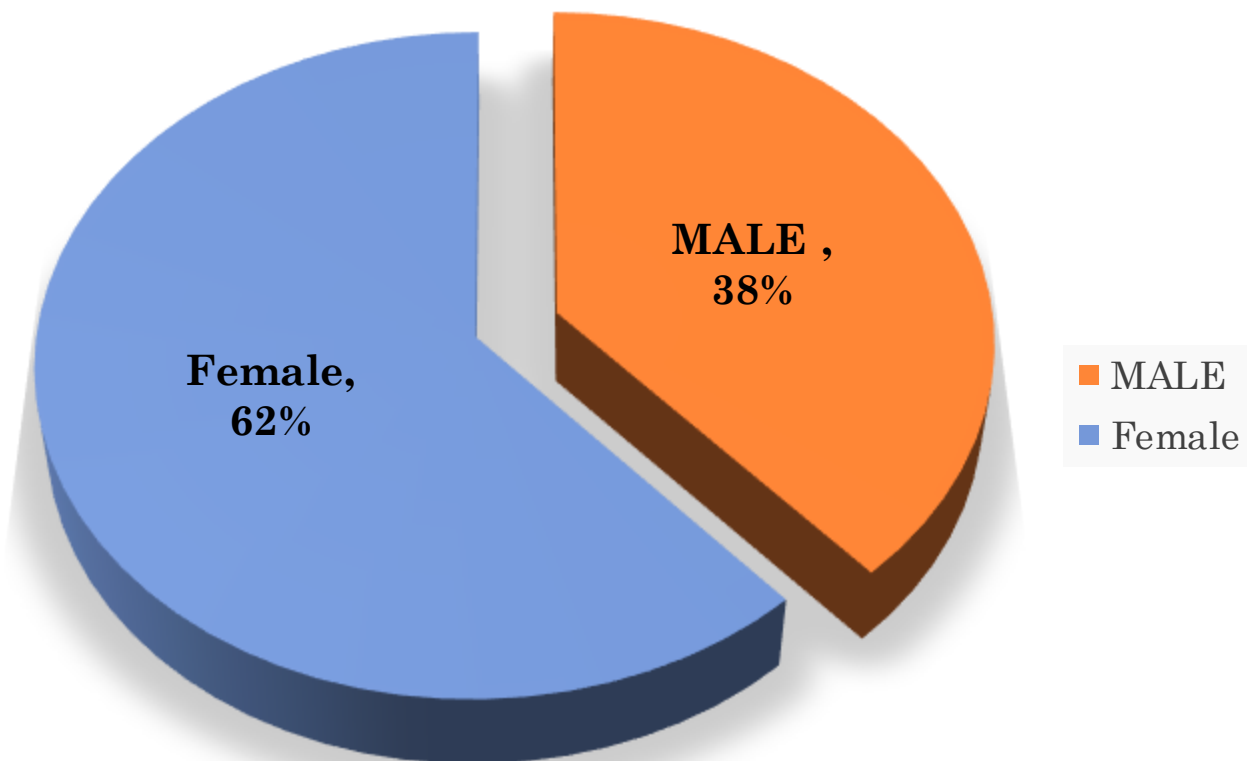


**2020**

# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION

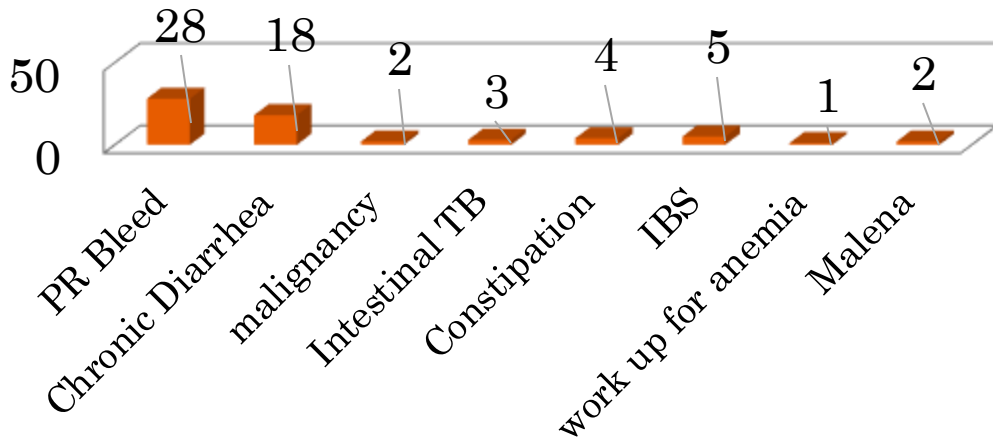
Total No of Patients	266
Male	102
Female	164

## *TOTAL NO OF PATIENTS*

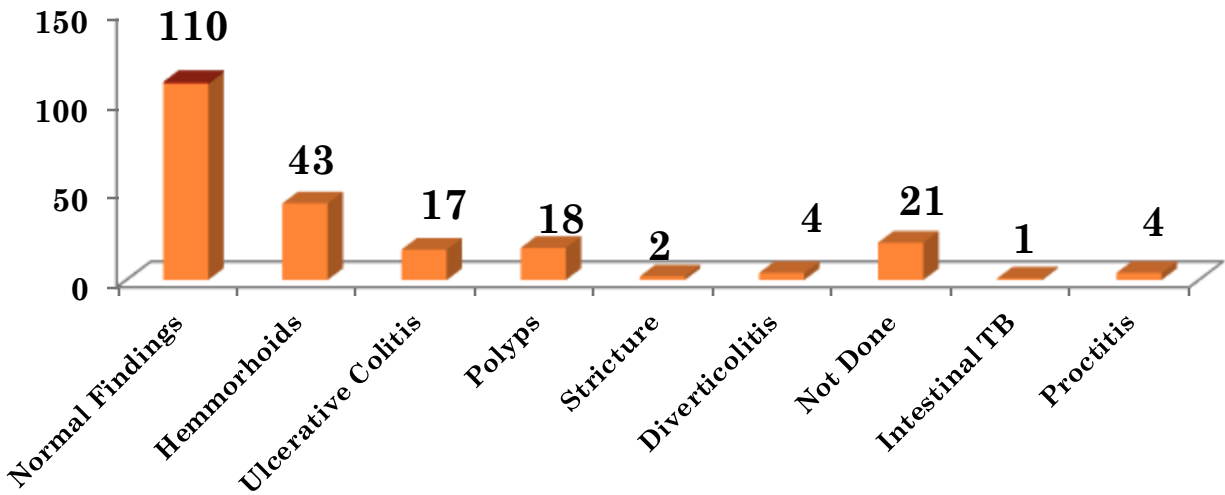




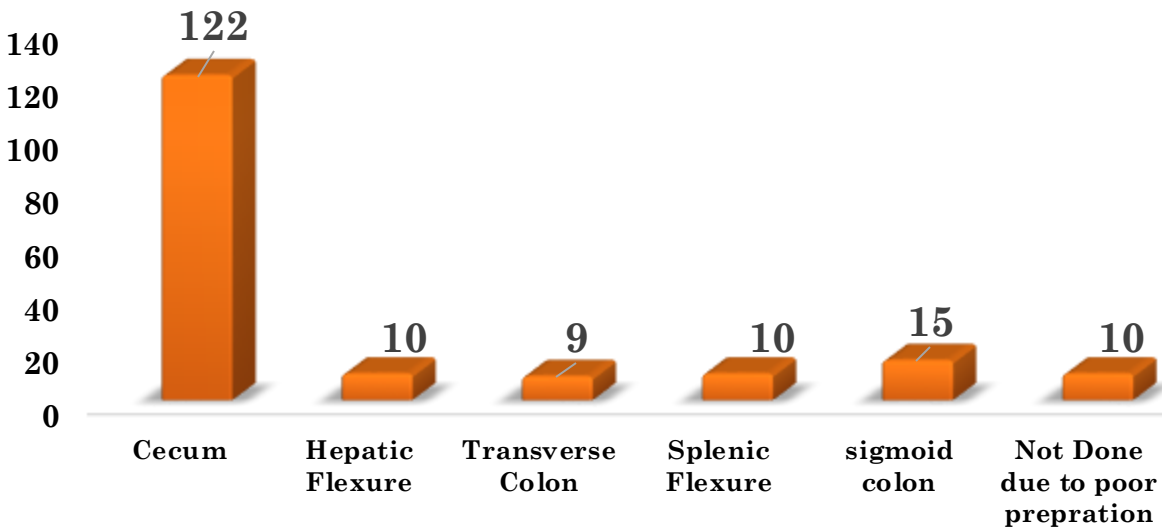
# PRESENTING COMPLAINTS



# COLONOSCOPY FINDINGS



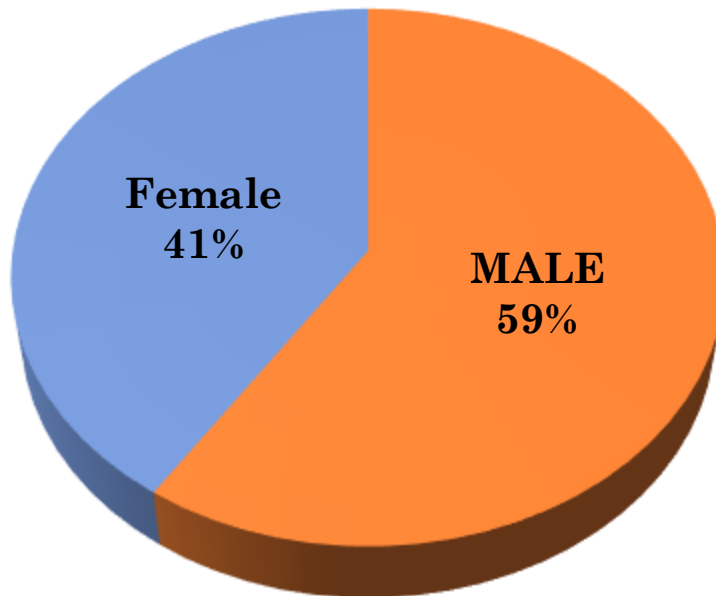
# EXTENT OF PROCEDURE



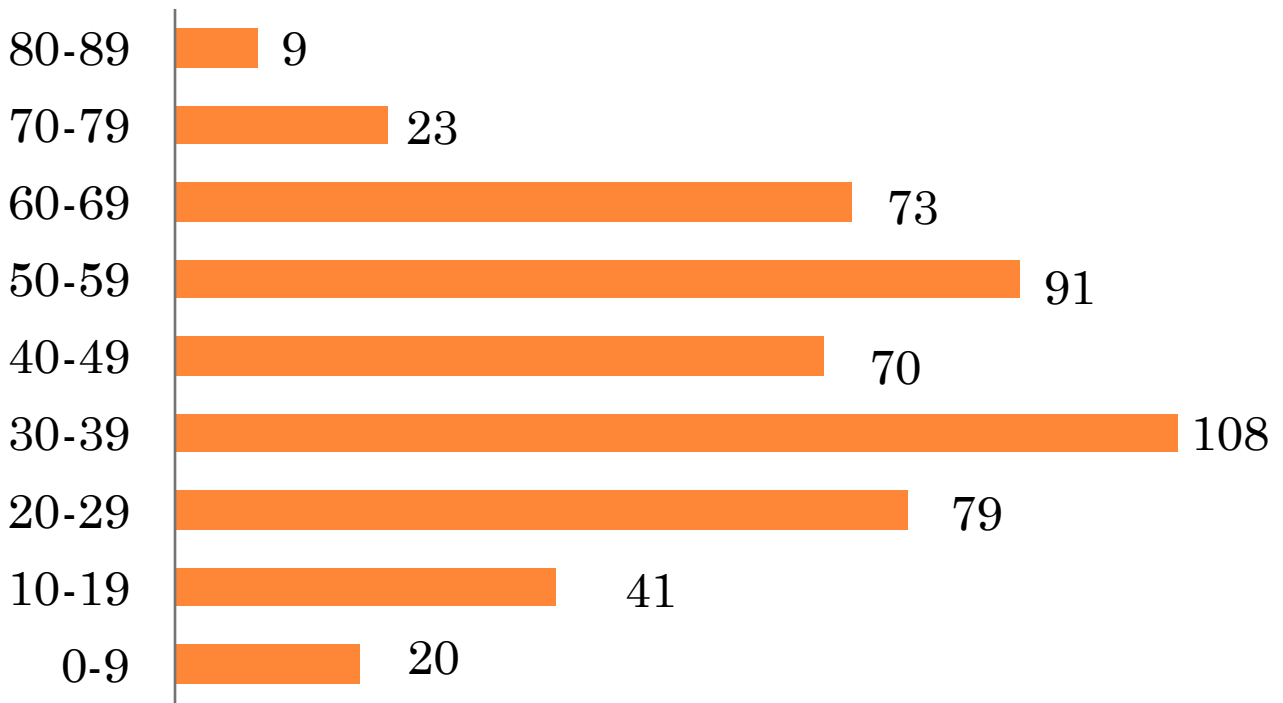
**2021**

# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION

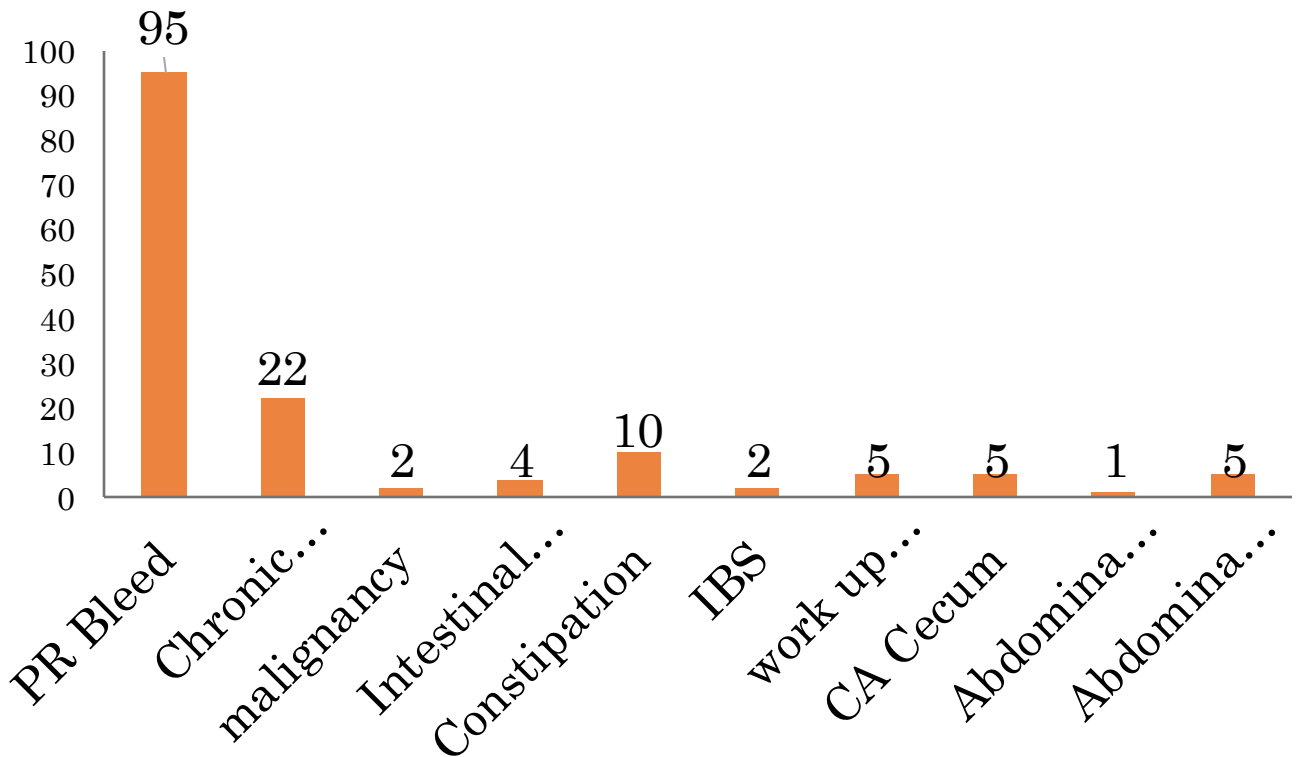
<b>Total No of Patients</b>	<b>514</b>
Male	305
Female	209



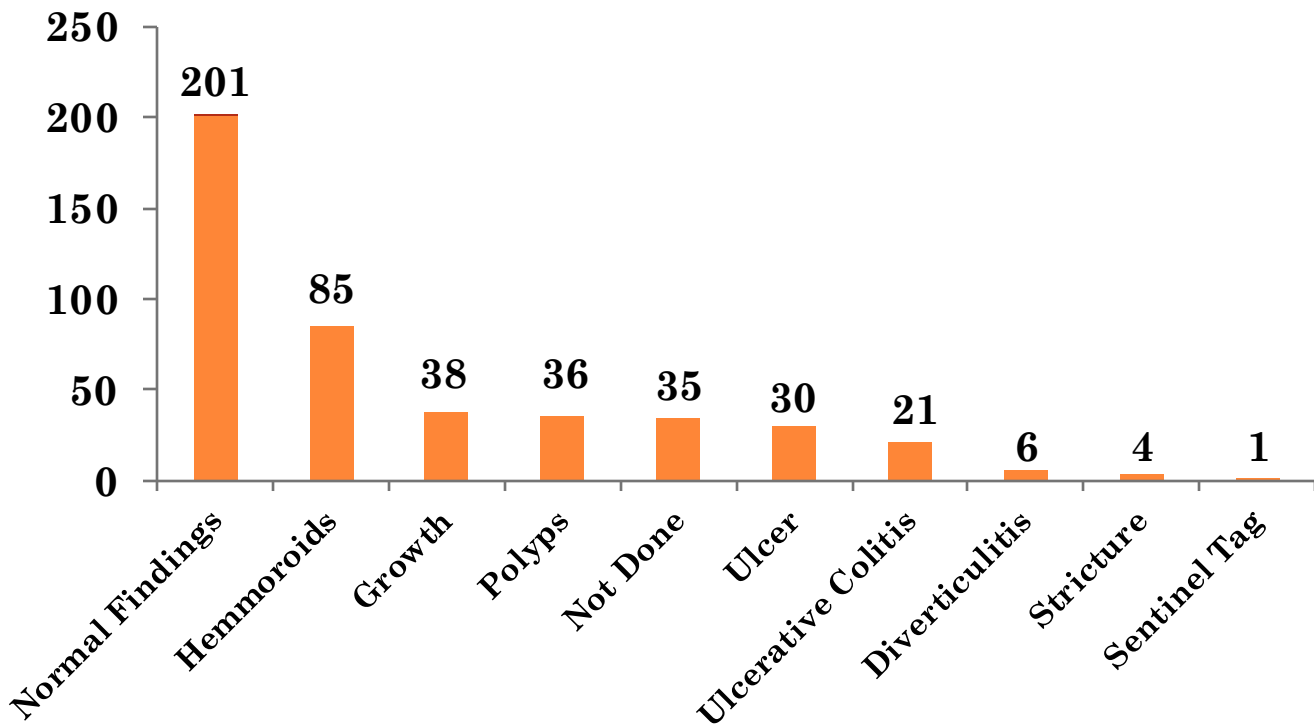
# AGE WISE DISTRIBUTION



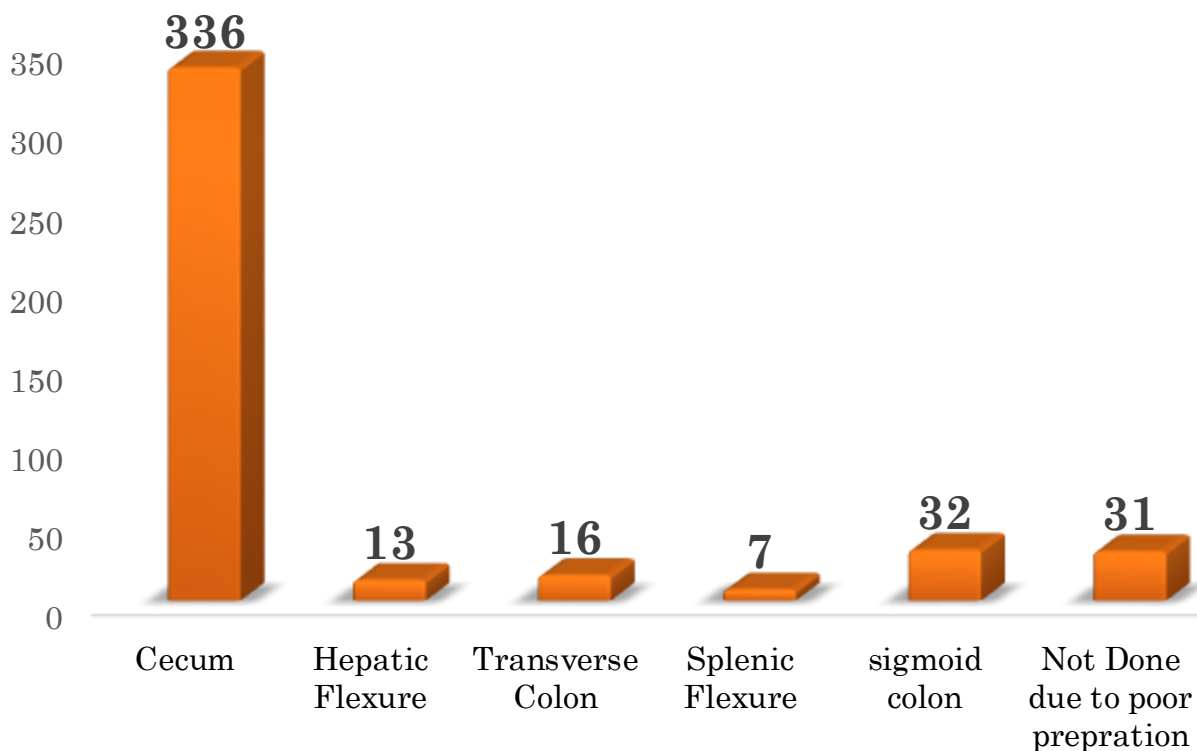
# PRESENTING COMPLAINTS



# COLONOSCOPY FINDINGS

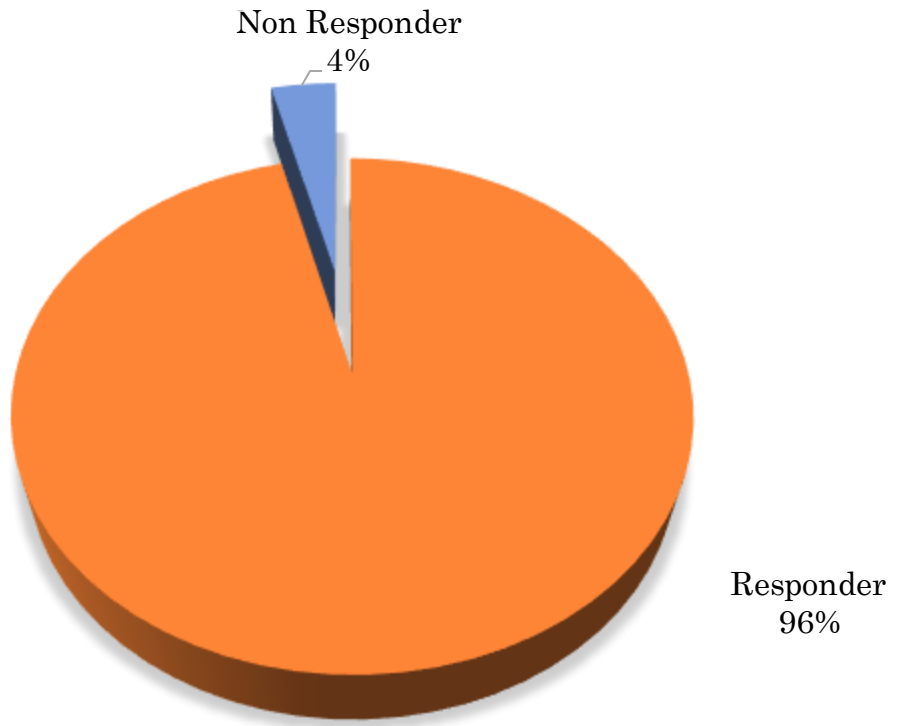


# EXTENT OF PROCEDURE

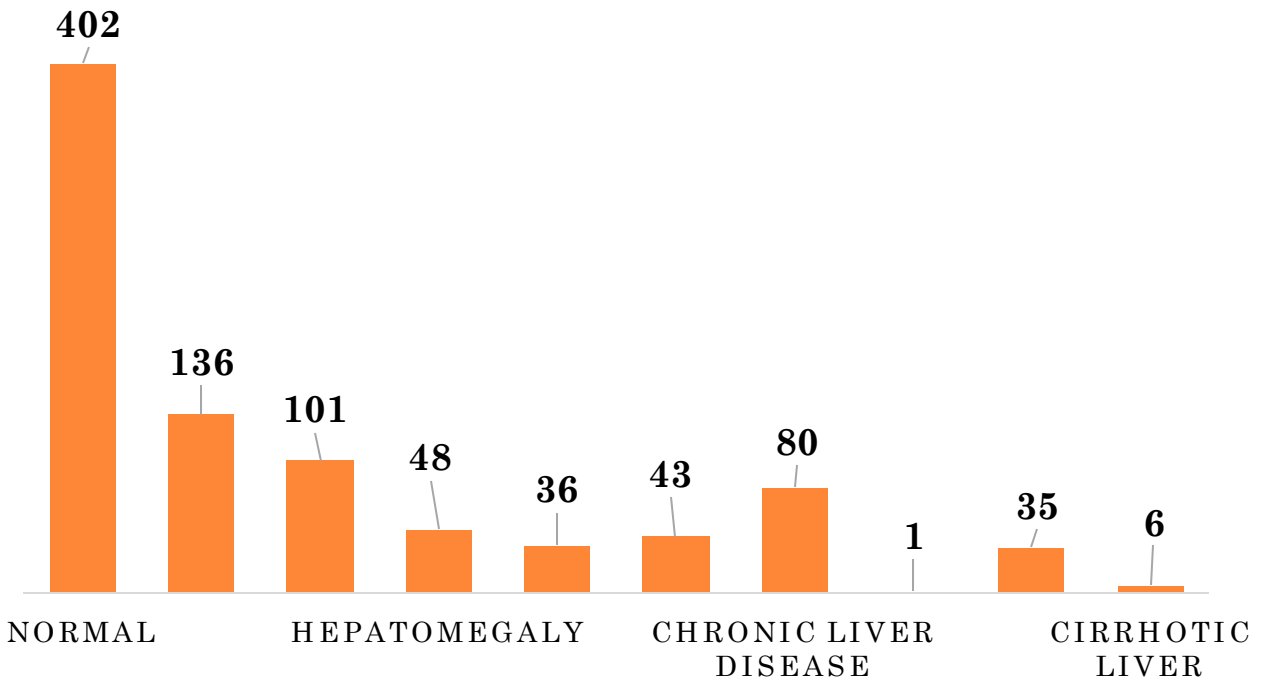


# RESPONDER, NON RESPONDER

Responder Non Responder



## USG

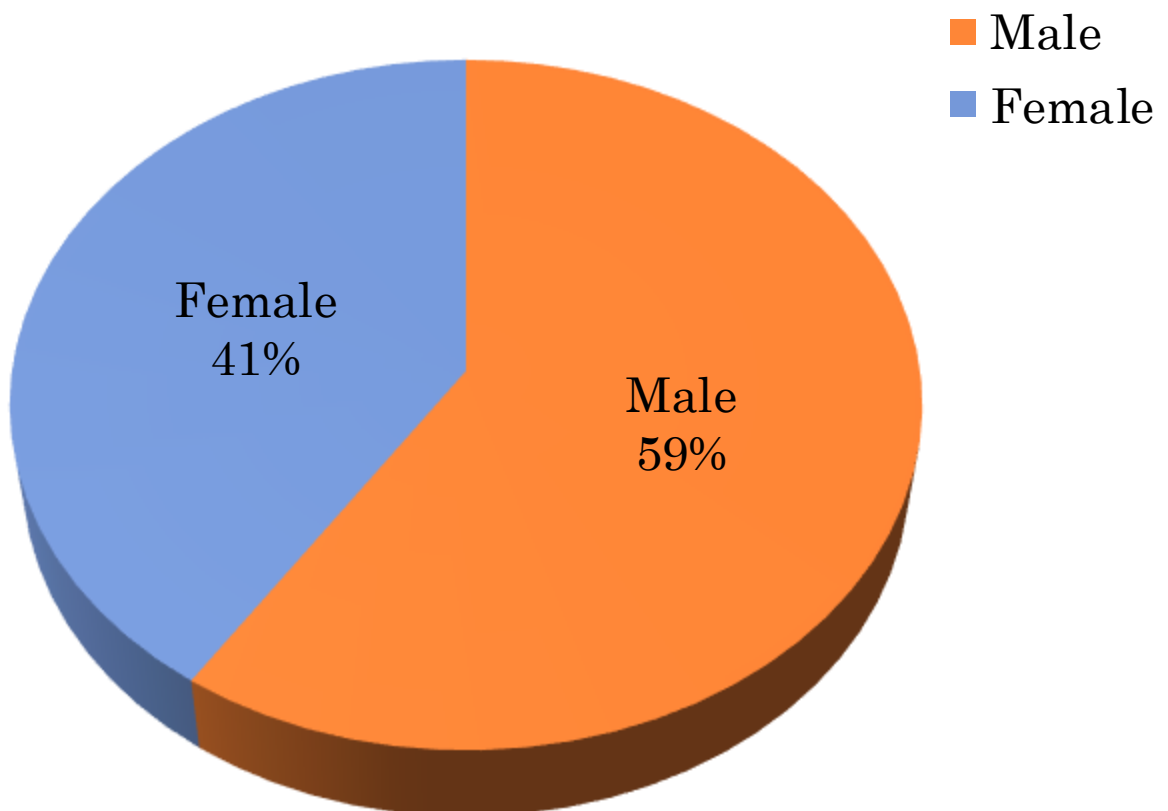


**2022**

# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION

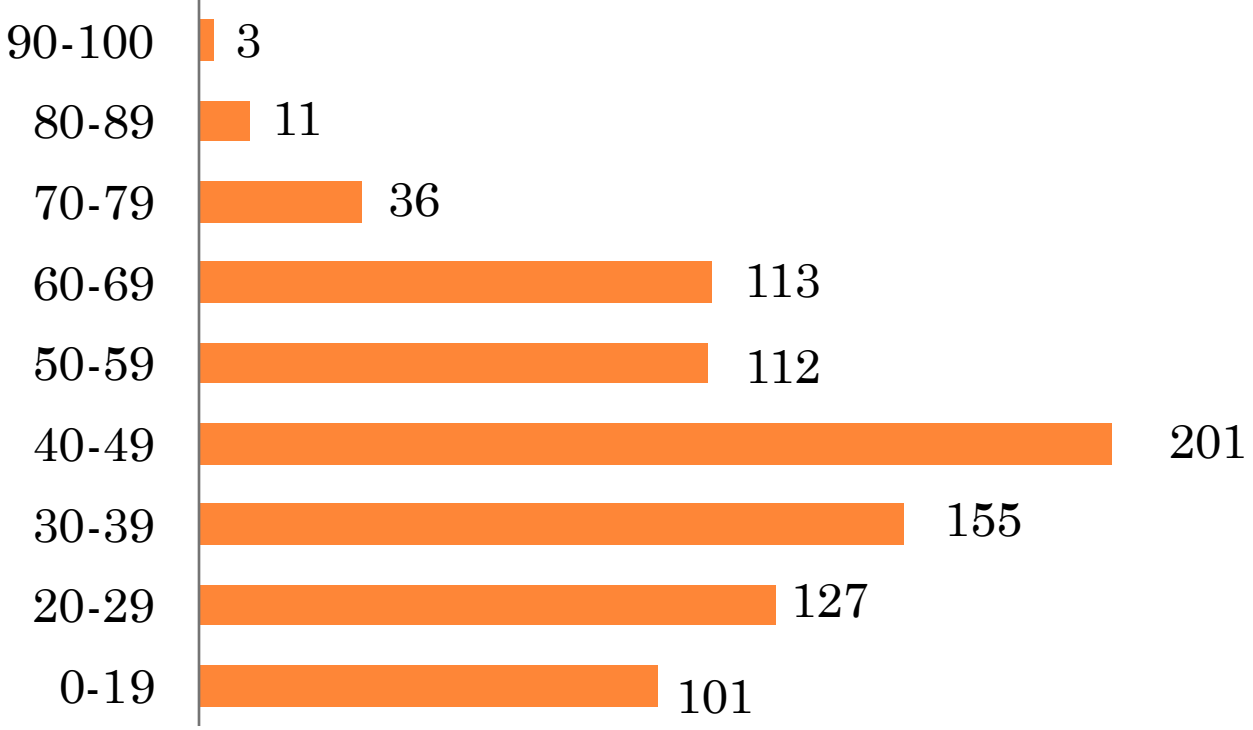
Total No of Patients	859
Male	510
Female	349

## Gender

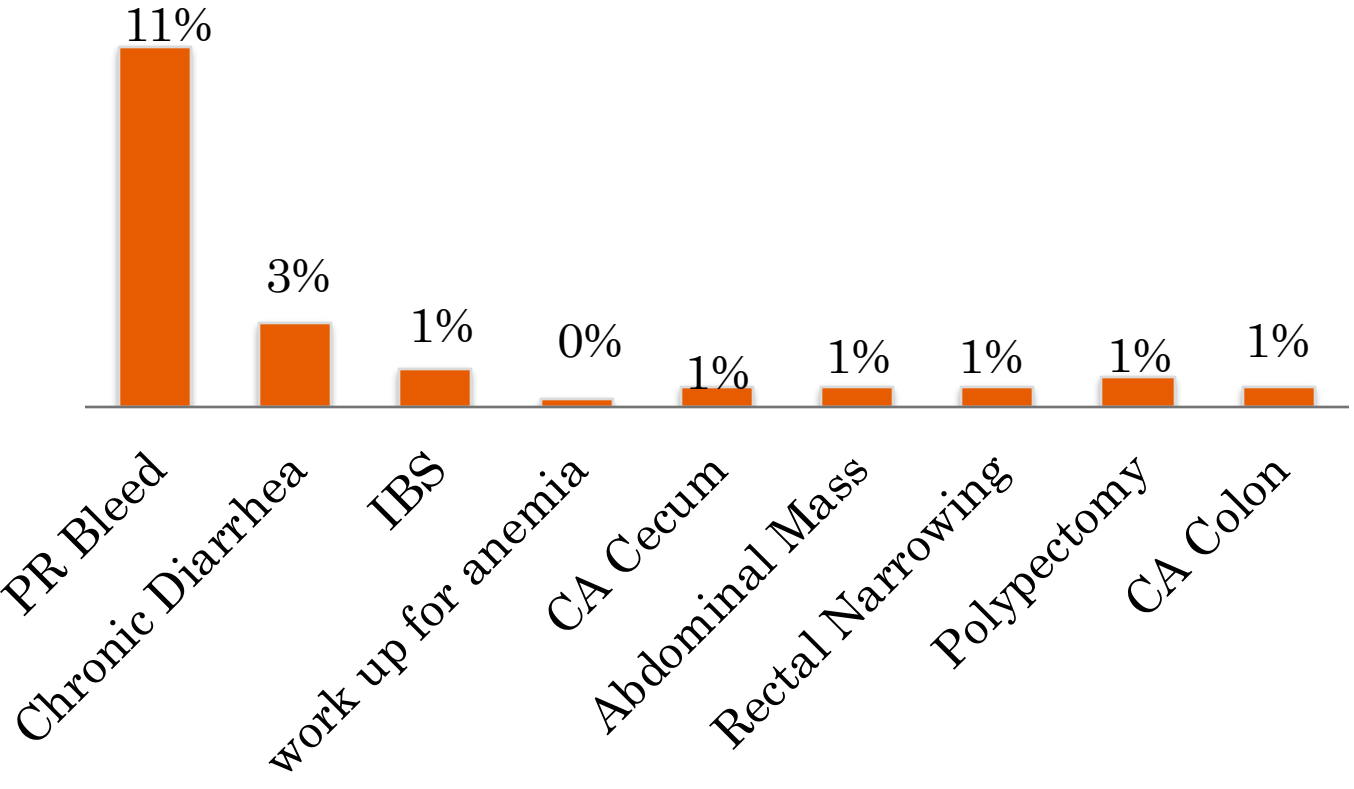




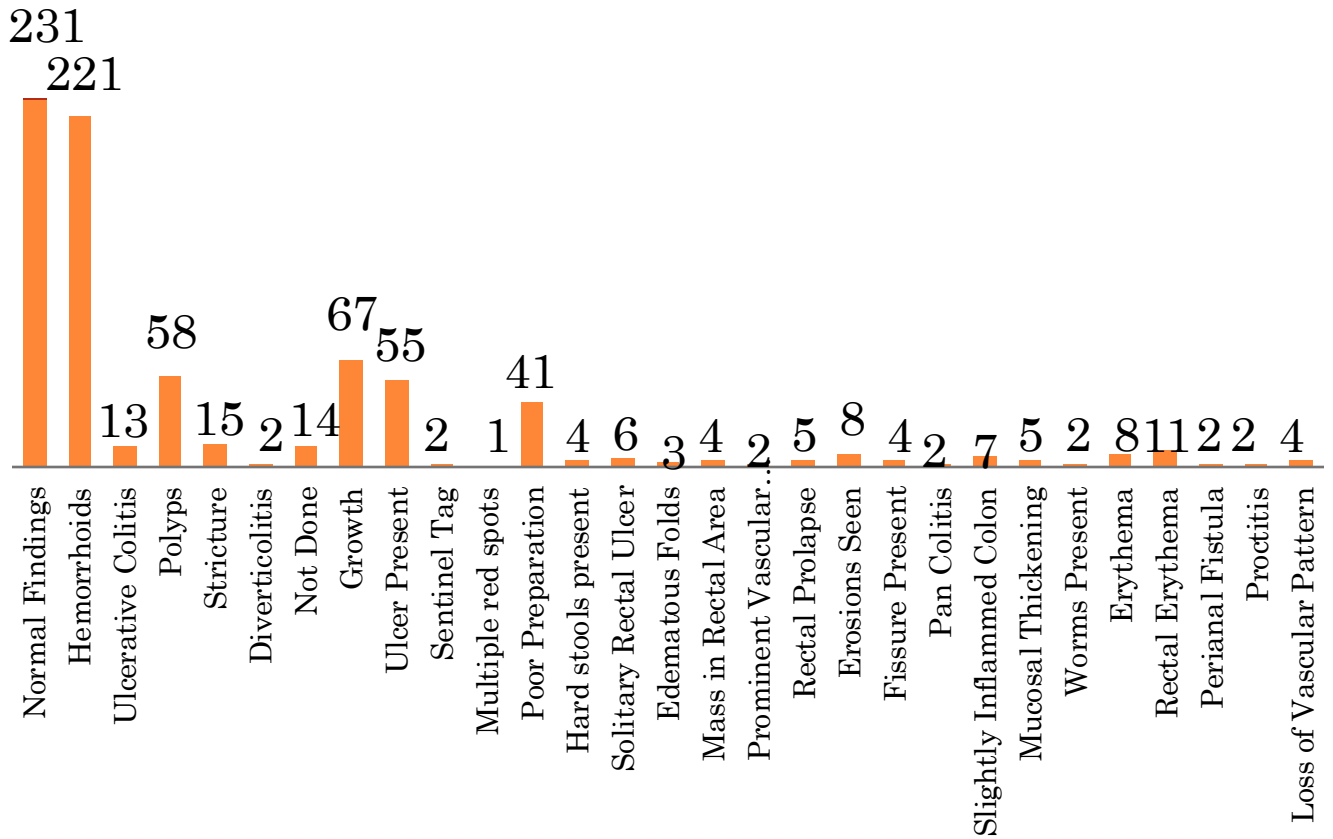
# AGE WISE DISTRIBUTION



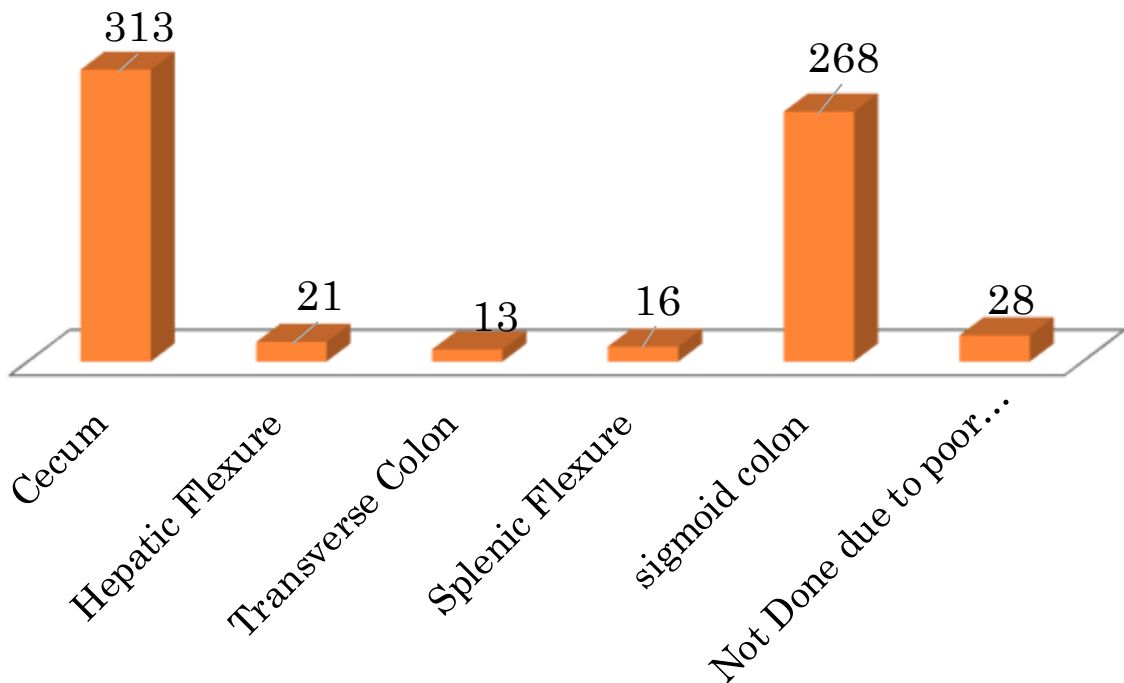
# PRESENTING COMPLAINTS



# COLONOSCOPY FINDINGS

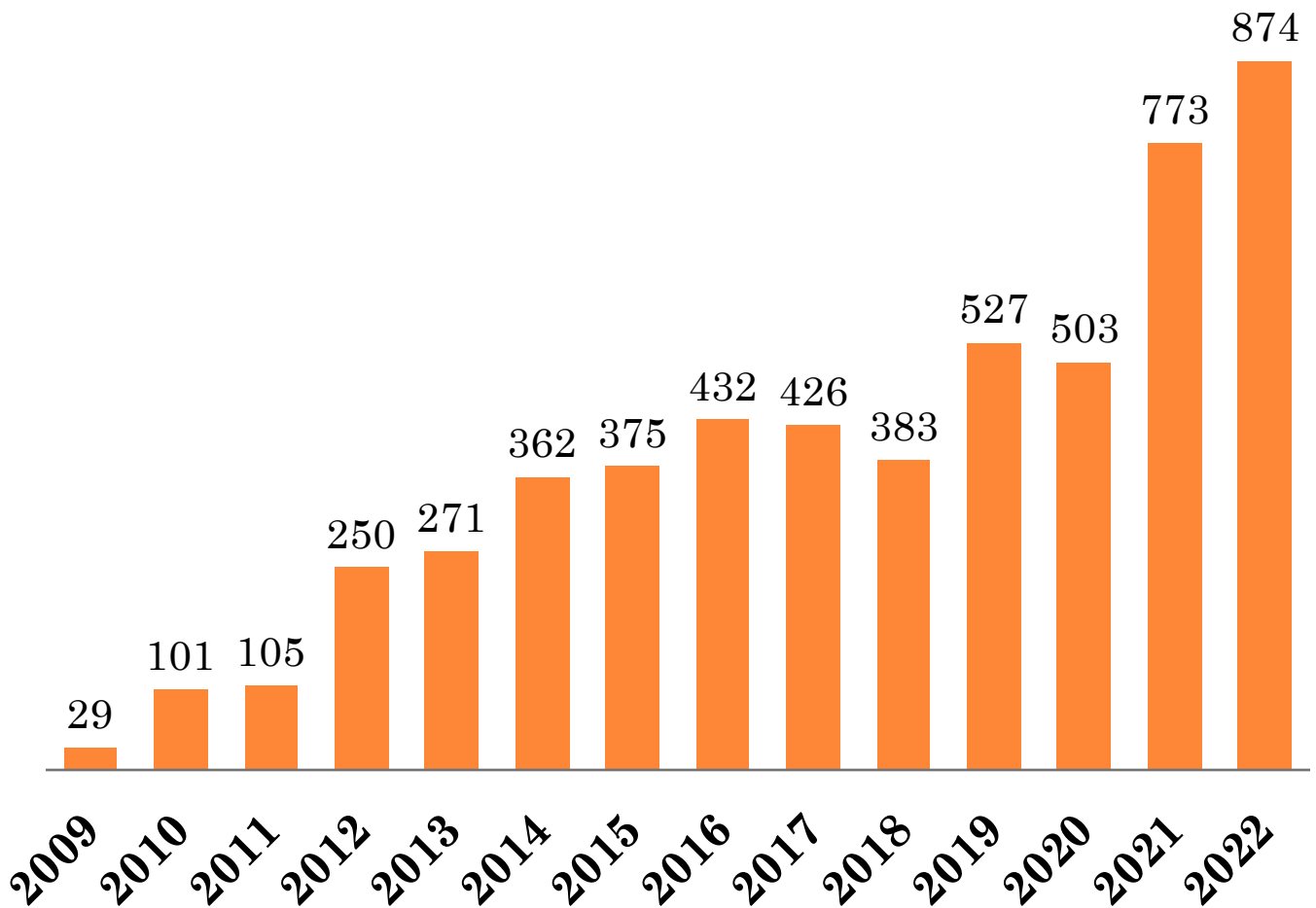


# EXTENT OF PROCEDURE



# ERCP Audit

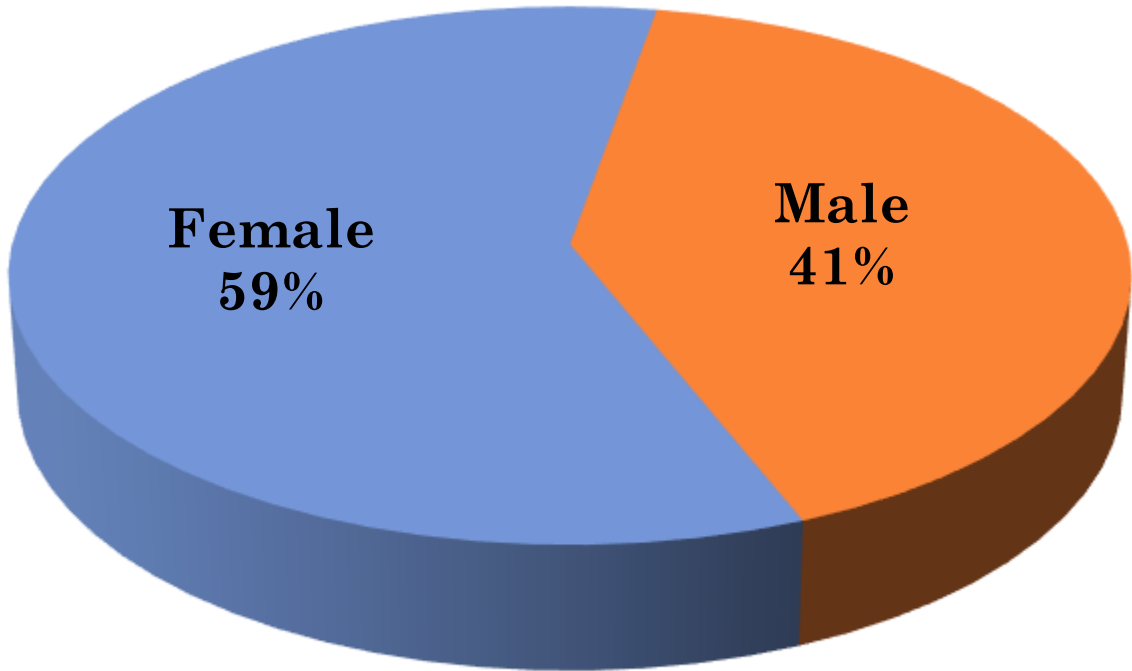
ERCP developed in 1960 as a pancreaticobiliary diagnostic procedure. ERCP has recently evolved as a therapeutic procedure only. Our center is now performing an average of 700-800 procedures per year. Despite COVID 503 patients were entertained during 2020. The number subsequently rise to 773 in 2021 and 874 in 2022 respectively. Commonest indication is choledocholithiasis, stenting was performed in 137 patient with 10 FR x 10cm plastic stent is the commonest stand used at our center this year. Overall success rate was 88% and in 70% of the cases the cannulation time was <3 minutes.



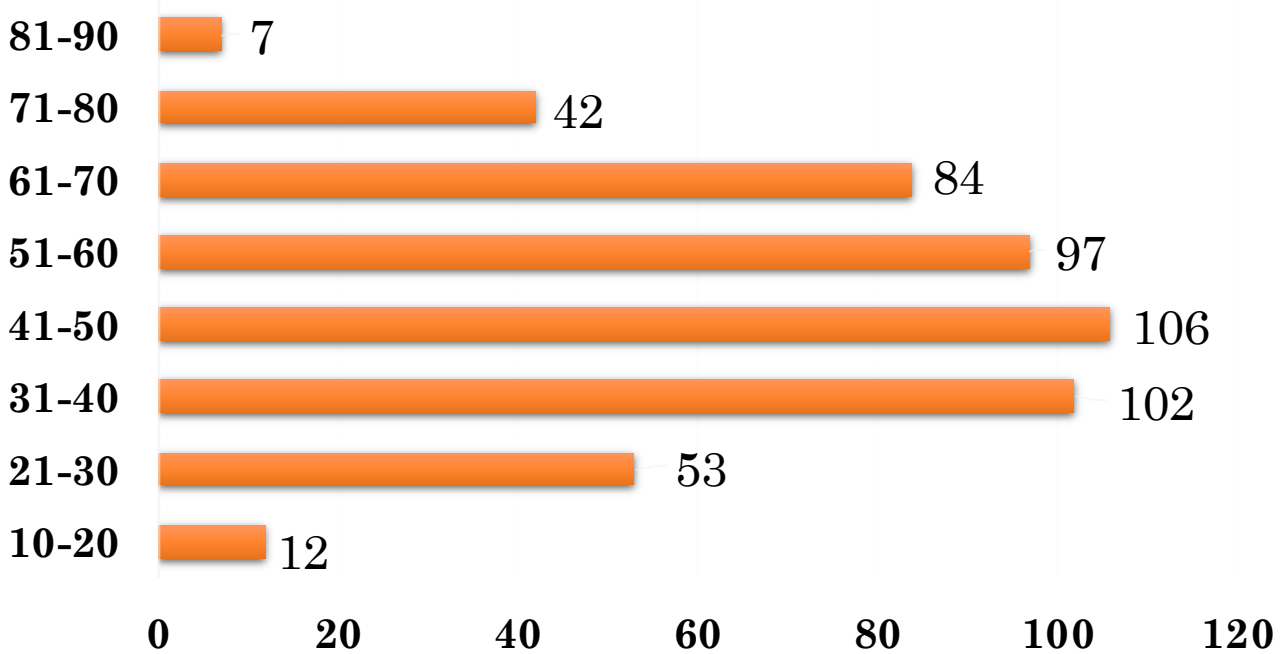
**2020**

# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION

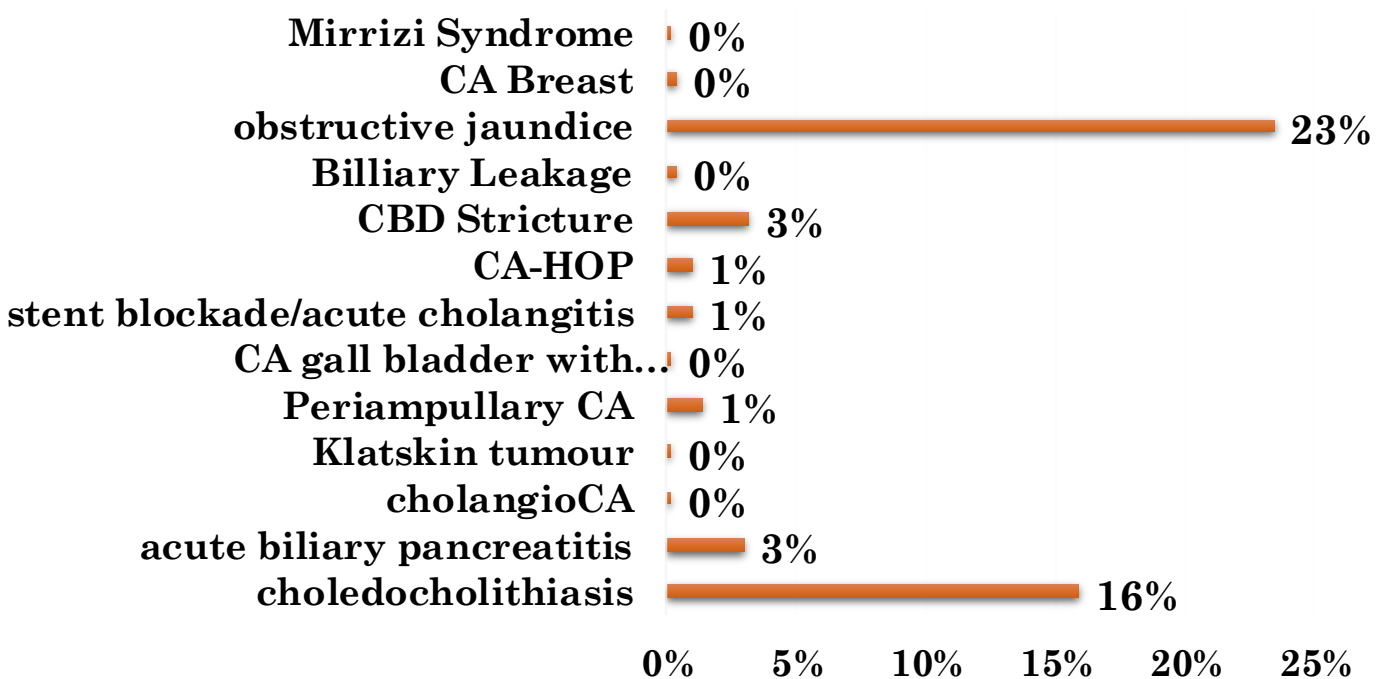
<b>Total Patient:</b>	<b>503</b>
Male	207
Female	296



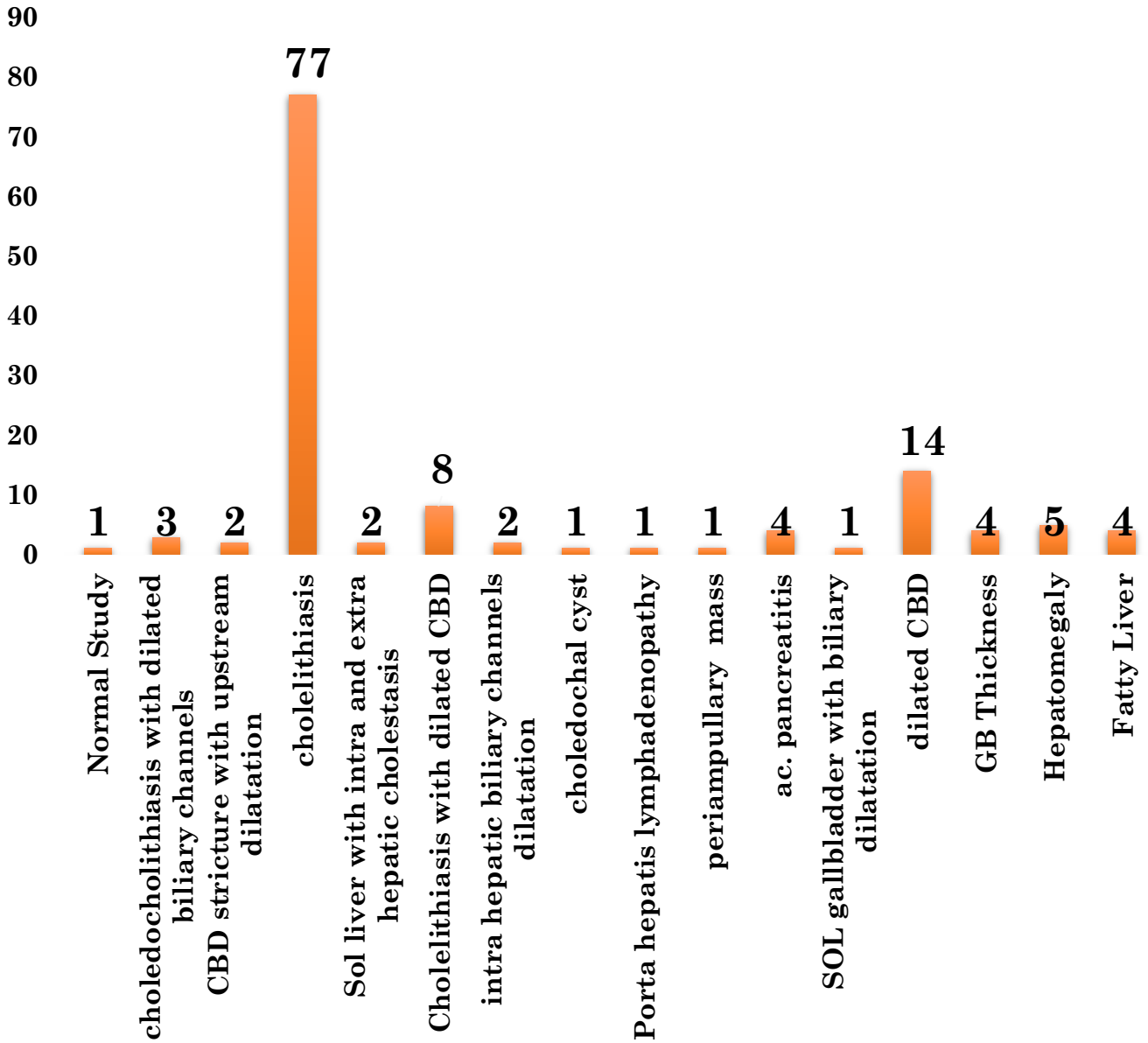
# AGE WISE DISTRIBUTION

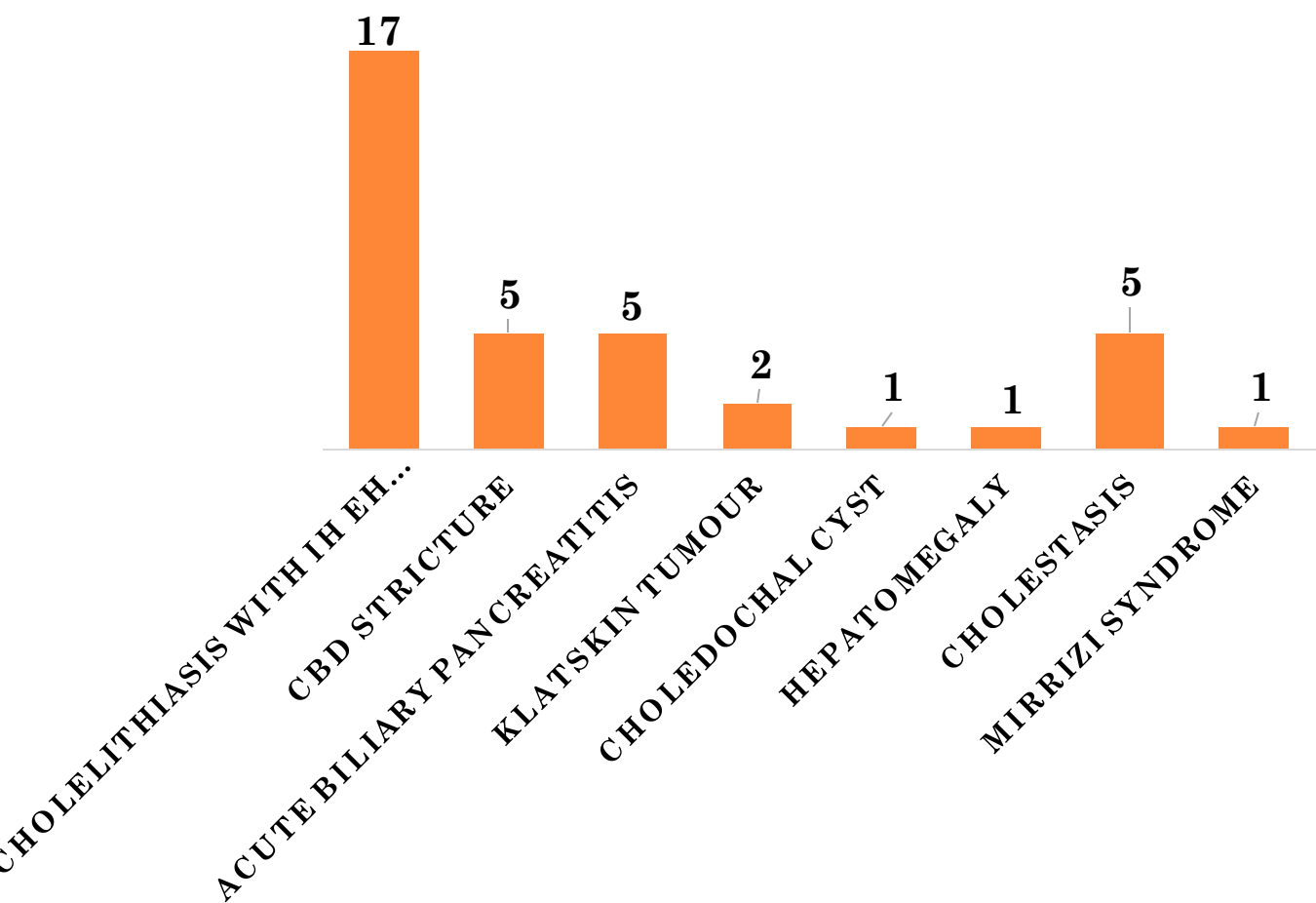


# ERCp INDICATION

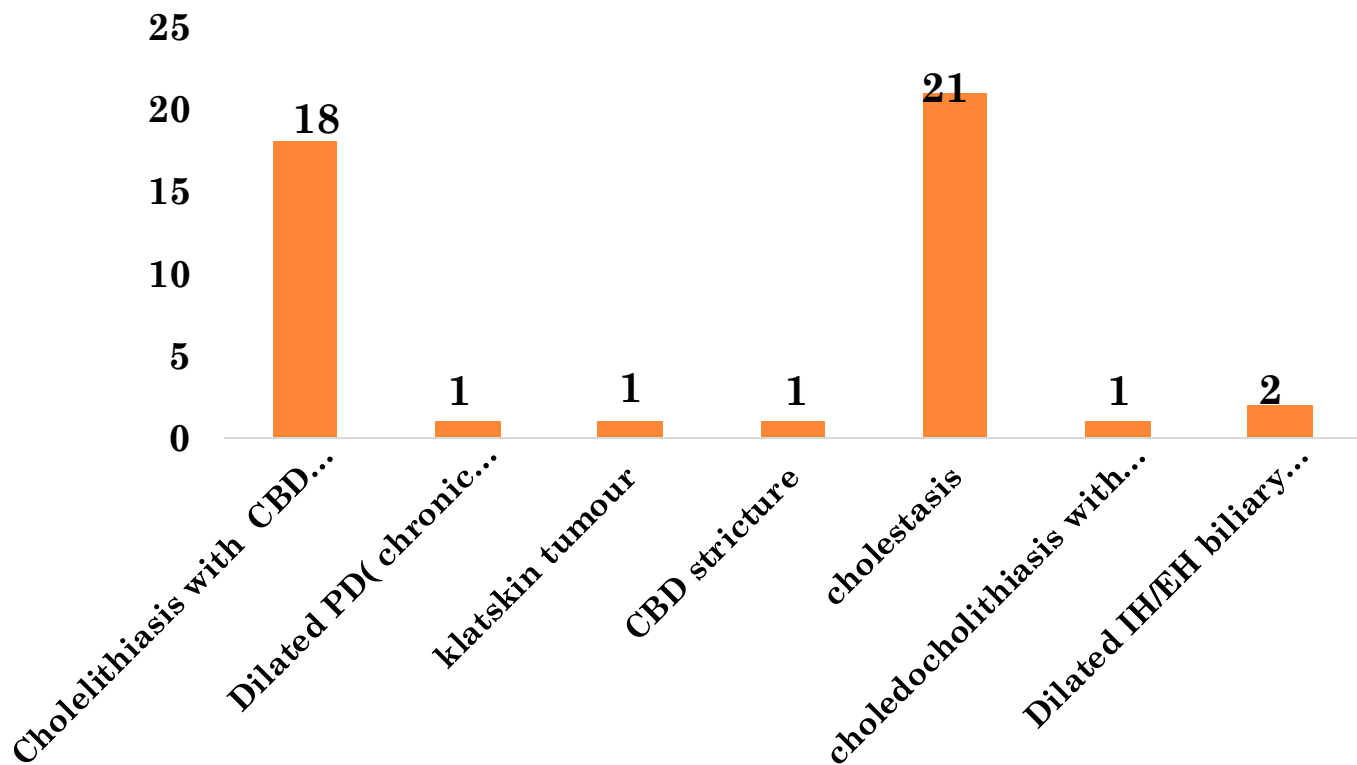


# USG FINDINGS



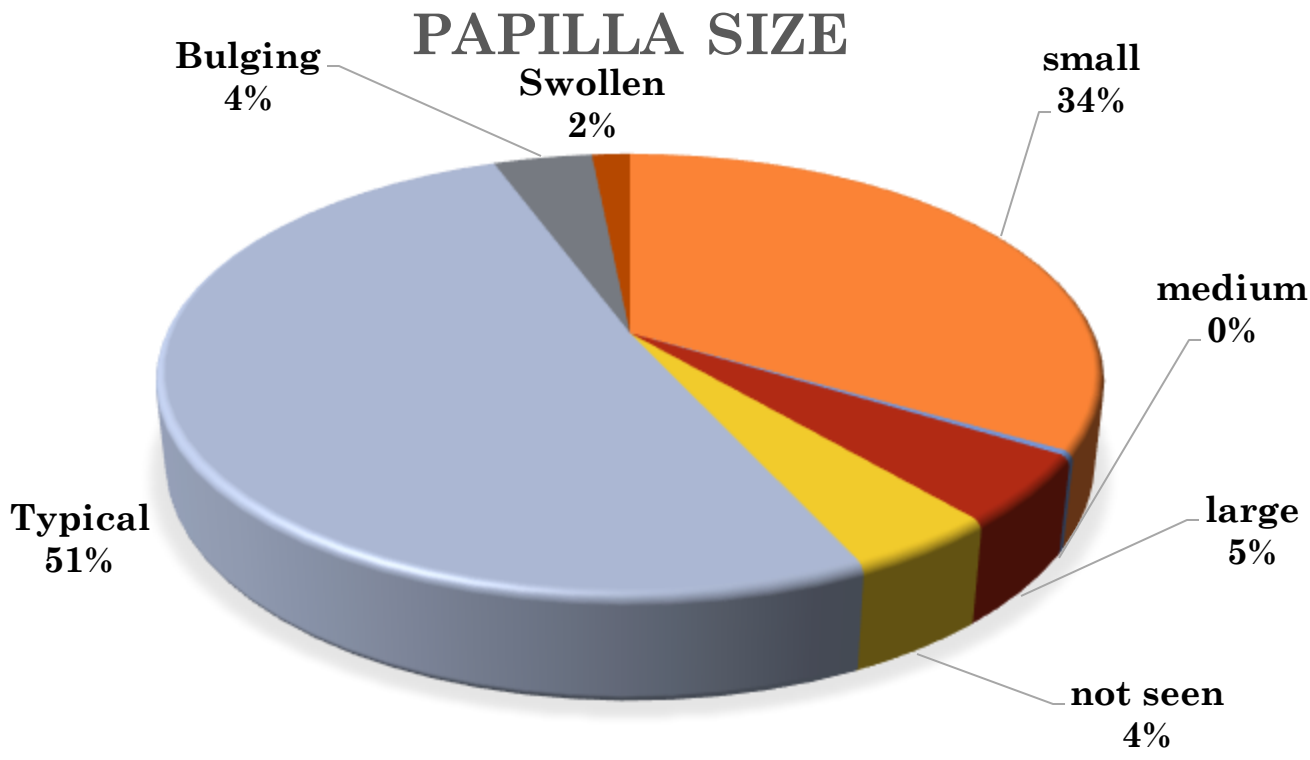
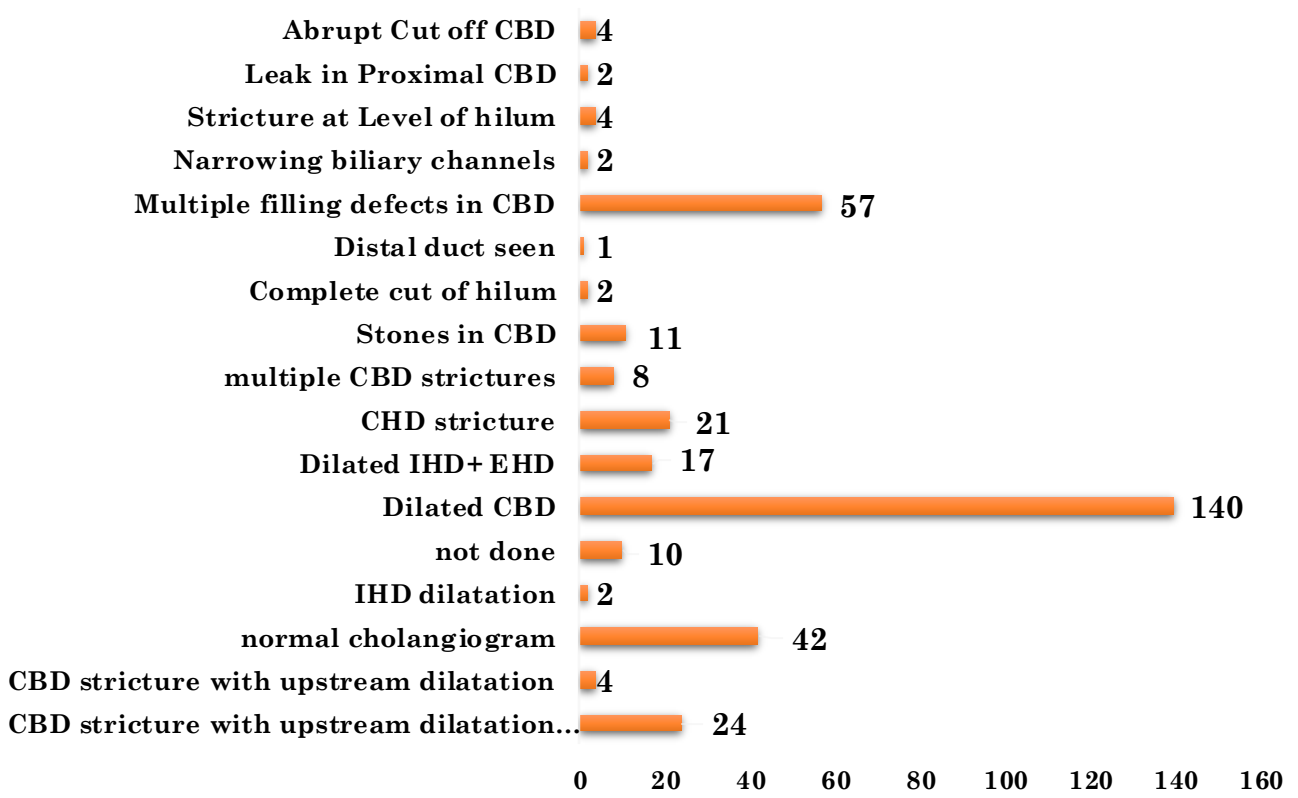


## MRCP FINDINGS

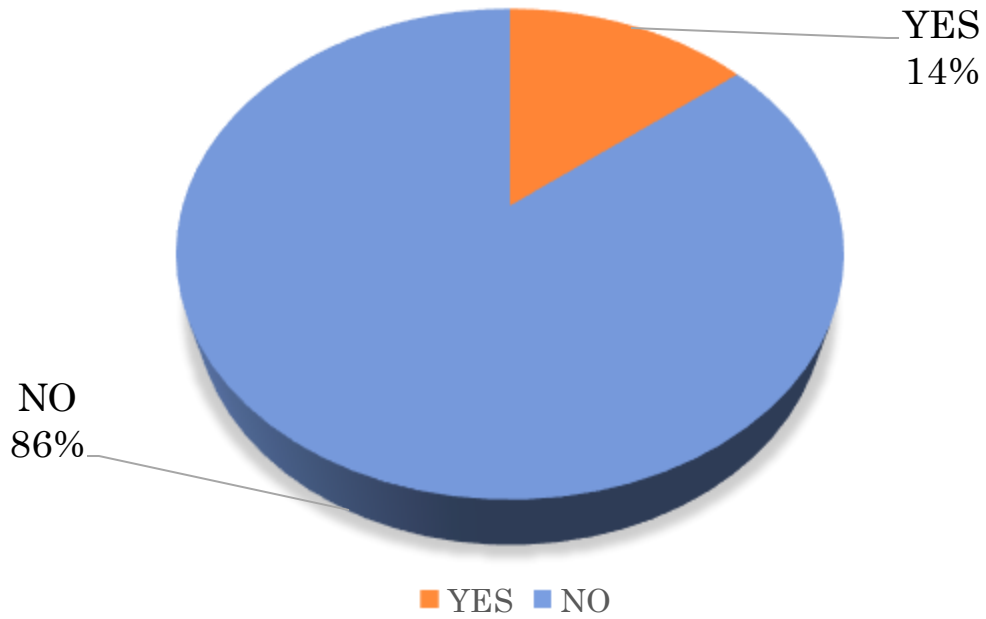




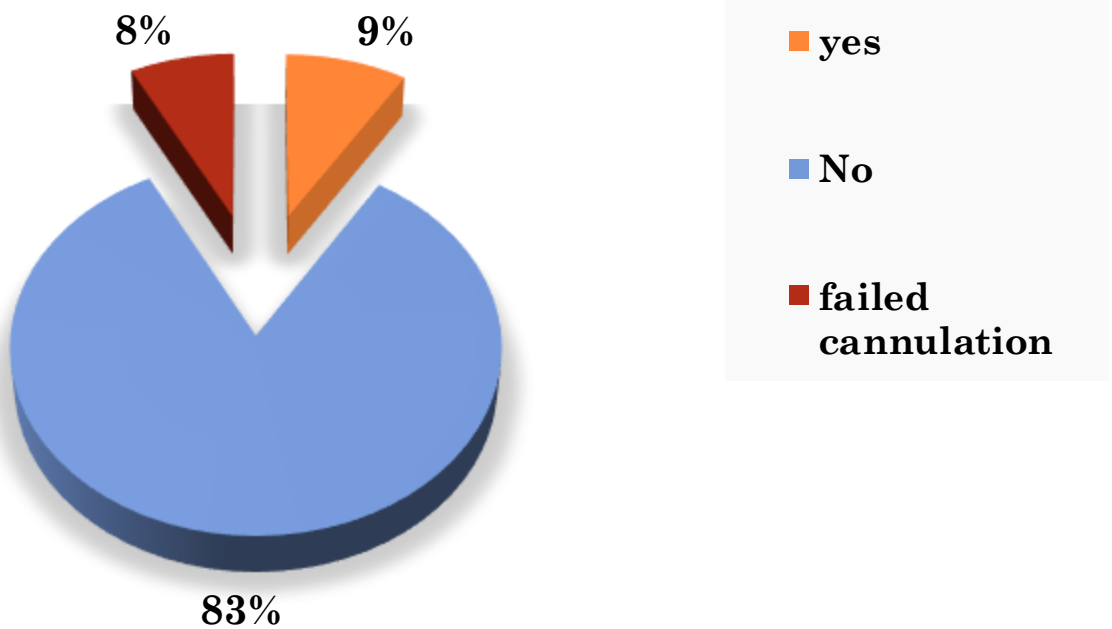
# CHOLANGIOGRAM FINDINGS



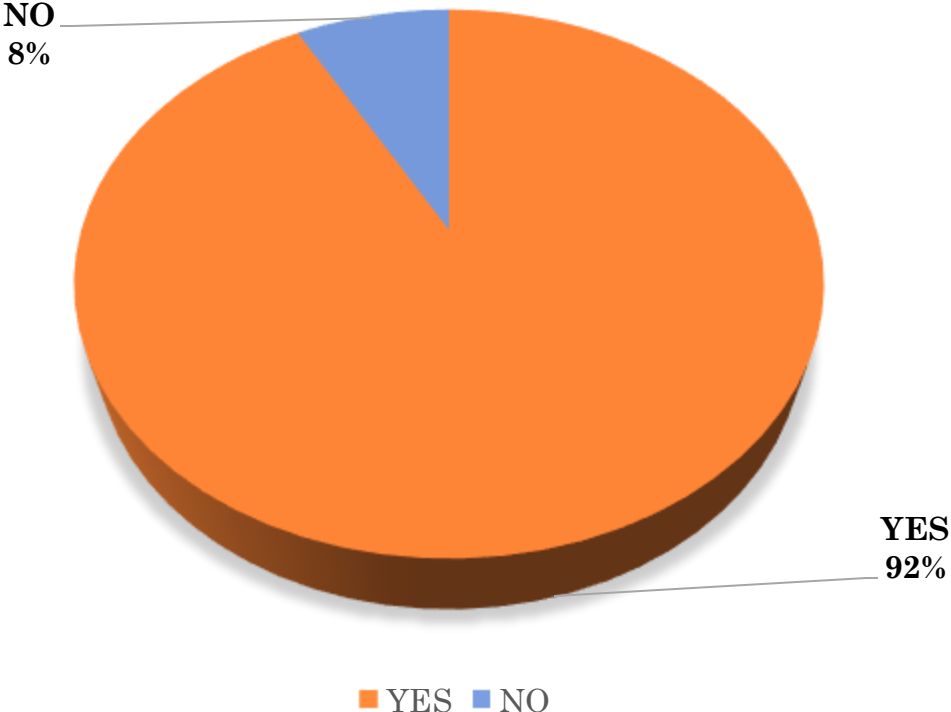
# BILE FLOW PRESENT



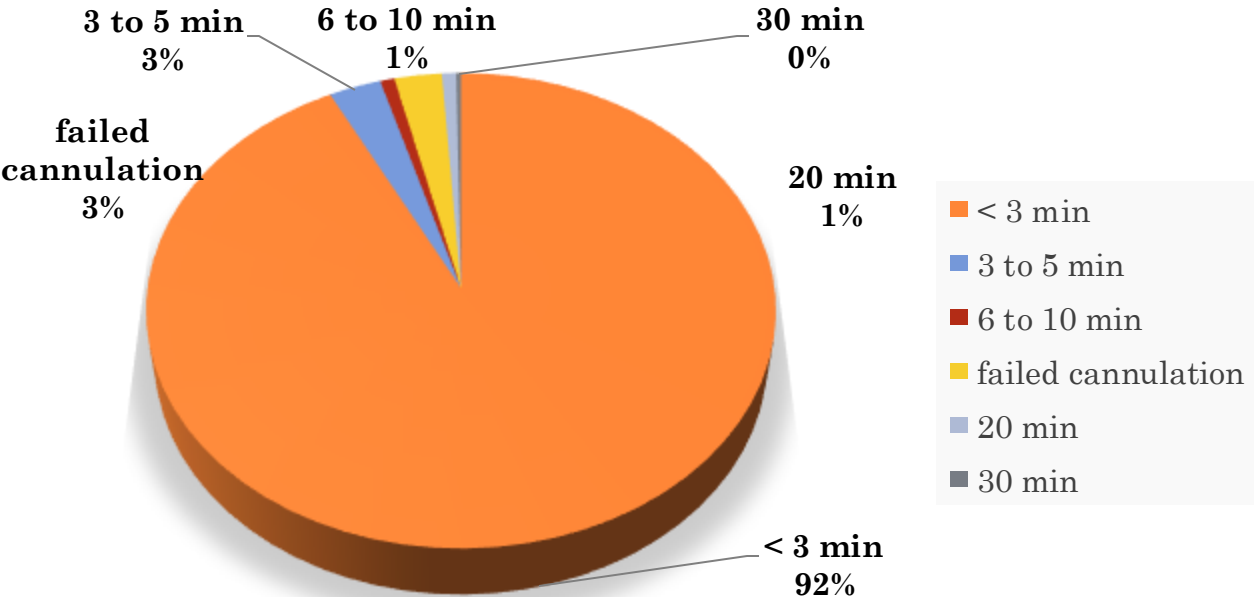
# Difficult Cannulation



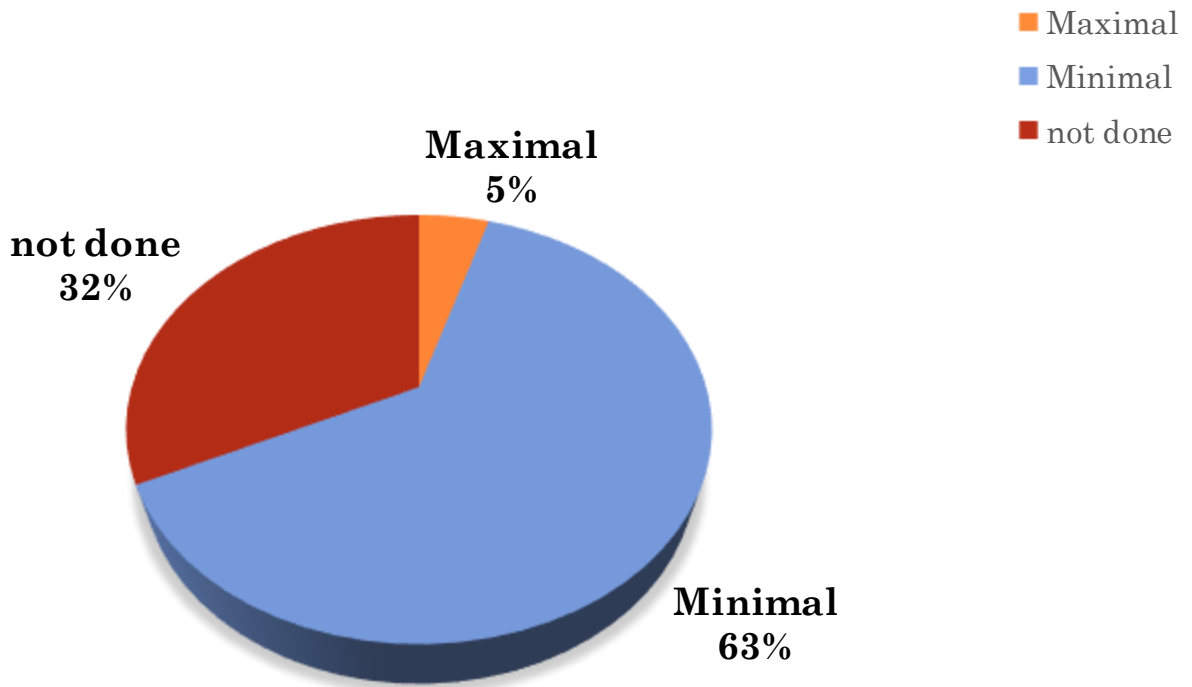
# CANNULATION SUCCESSFUL



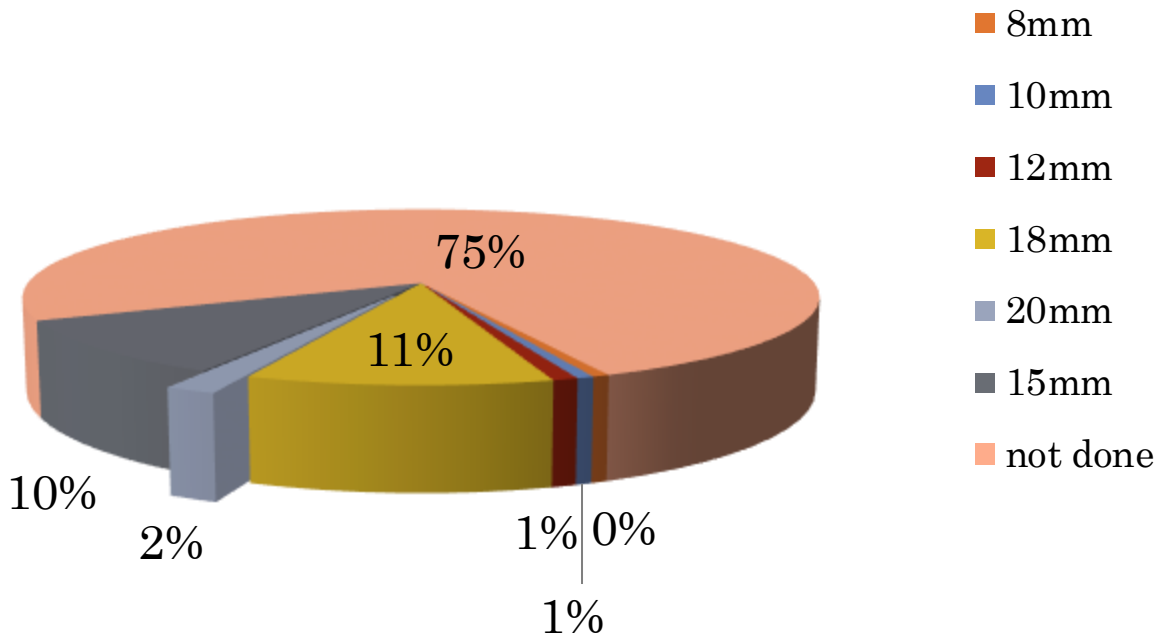
# CANNULATION TIME IN MINUTES



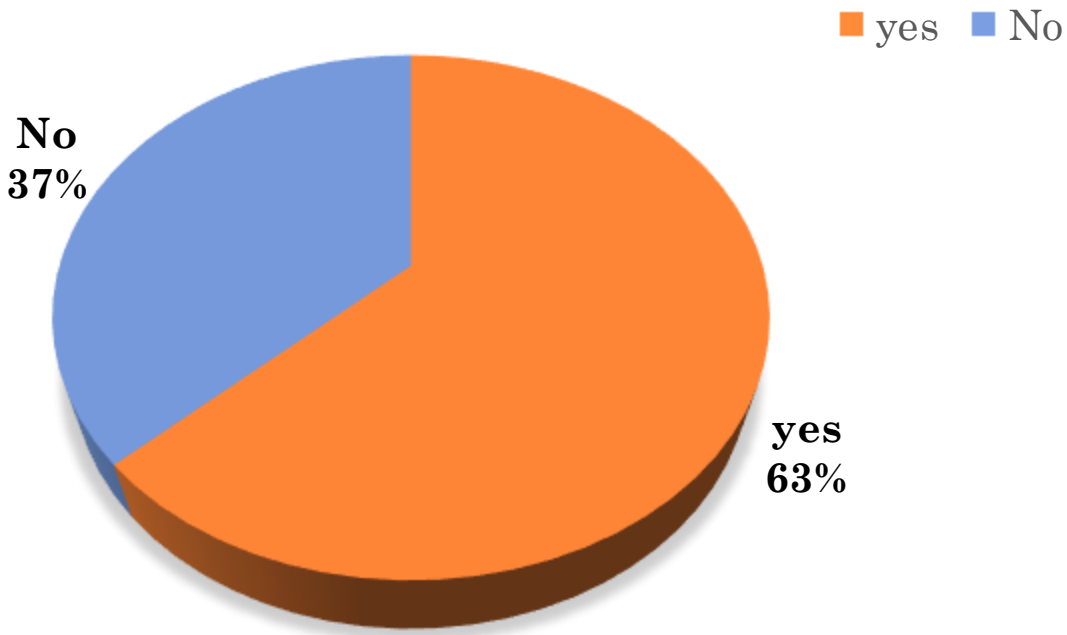
# SPHINCTEROTOMY



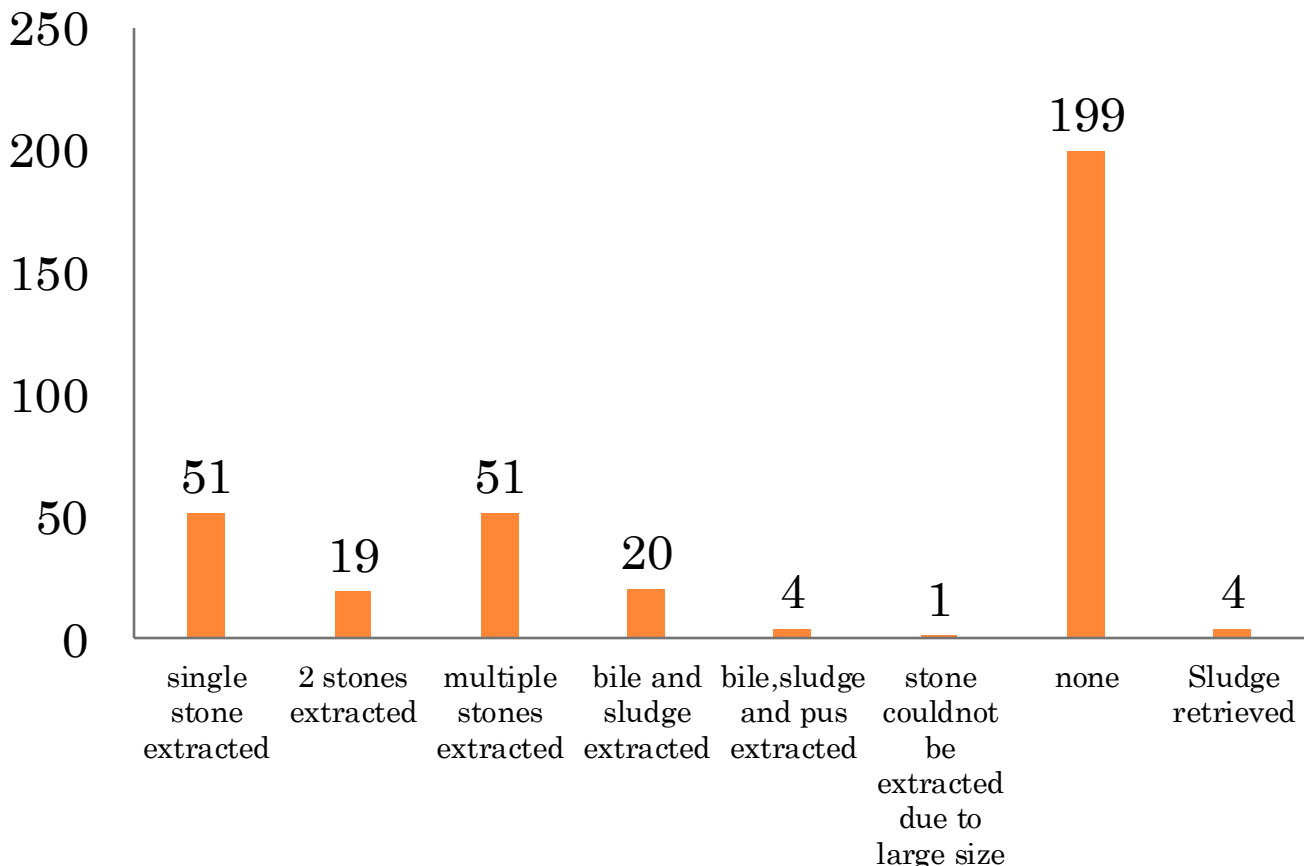
## Balloon Dilation diameter



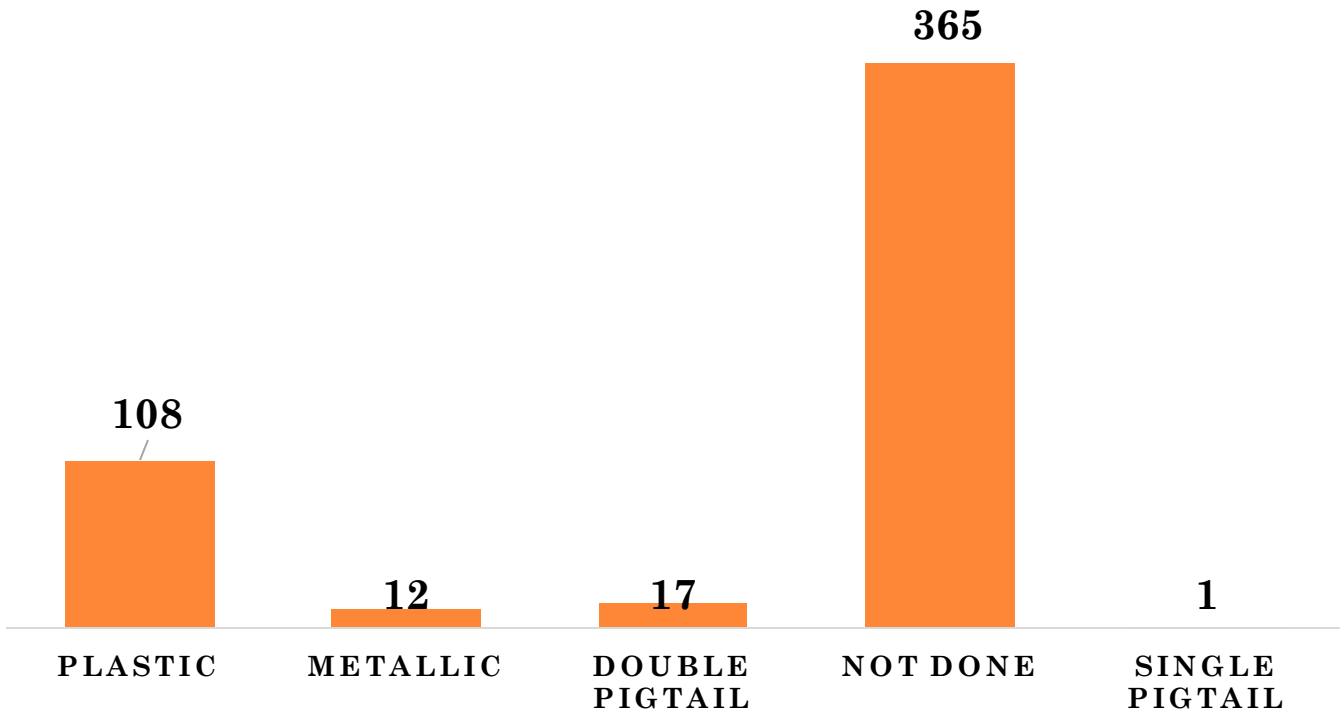
# BALLOON SWEEP PERFORMED



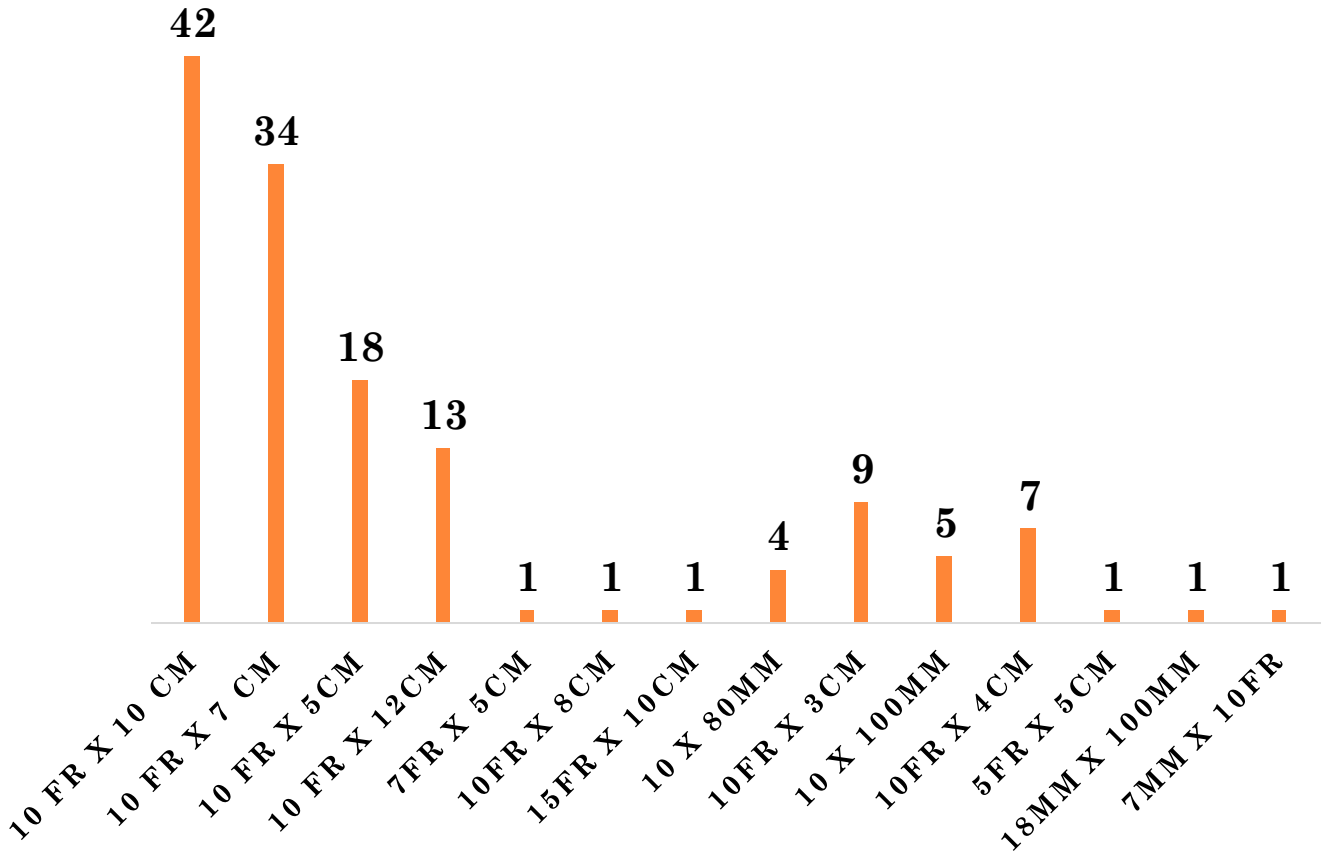
## Stone or Sludge Extraction



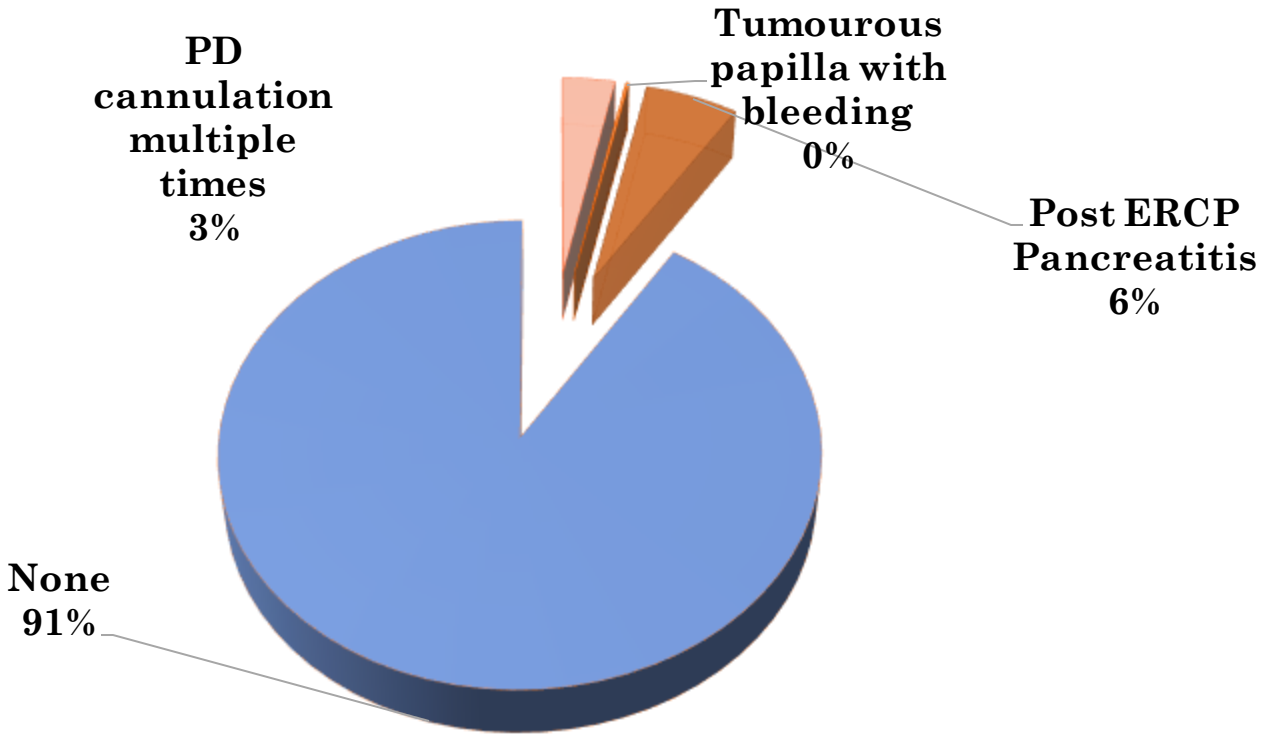
# TYPE OF STENT



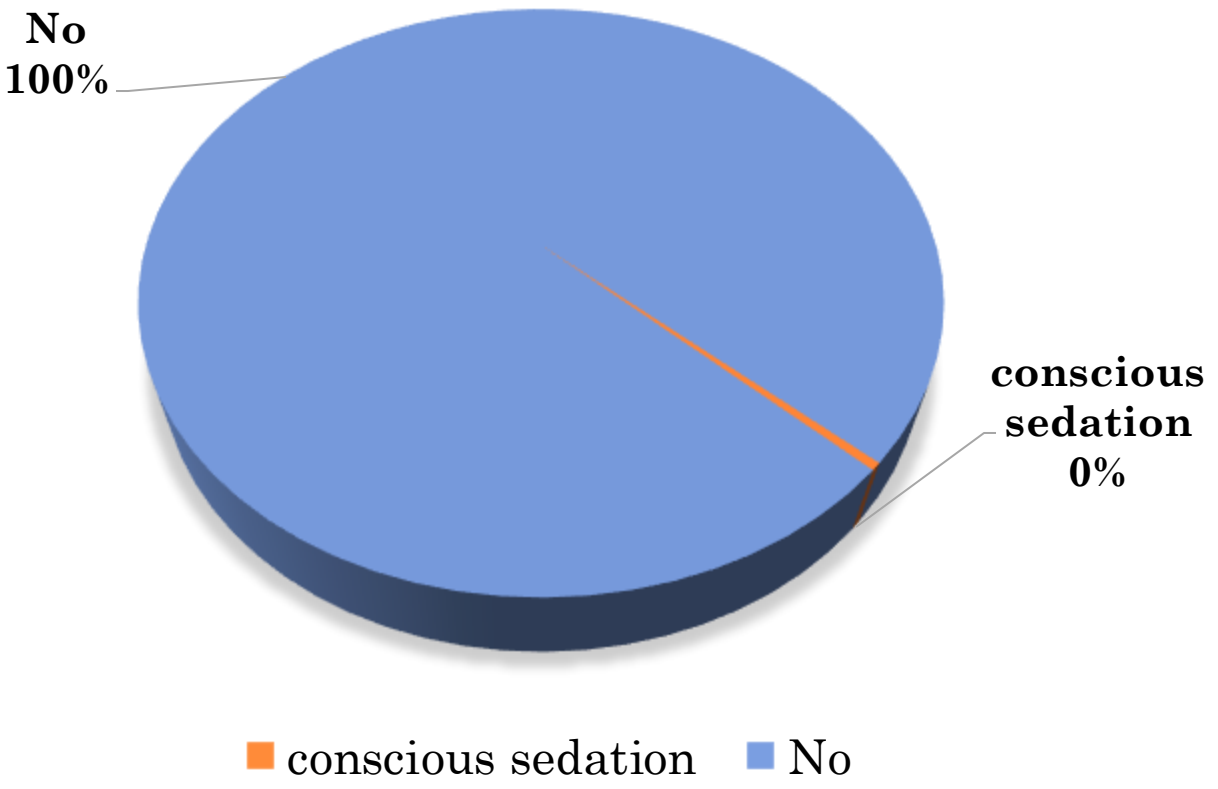
# SIZE OF STENTS



# COMPLICATION



# Sedation Type

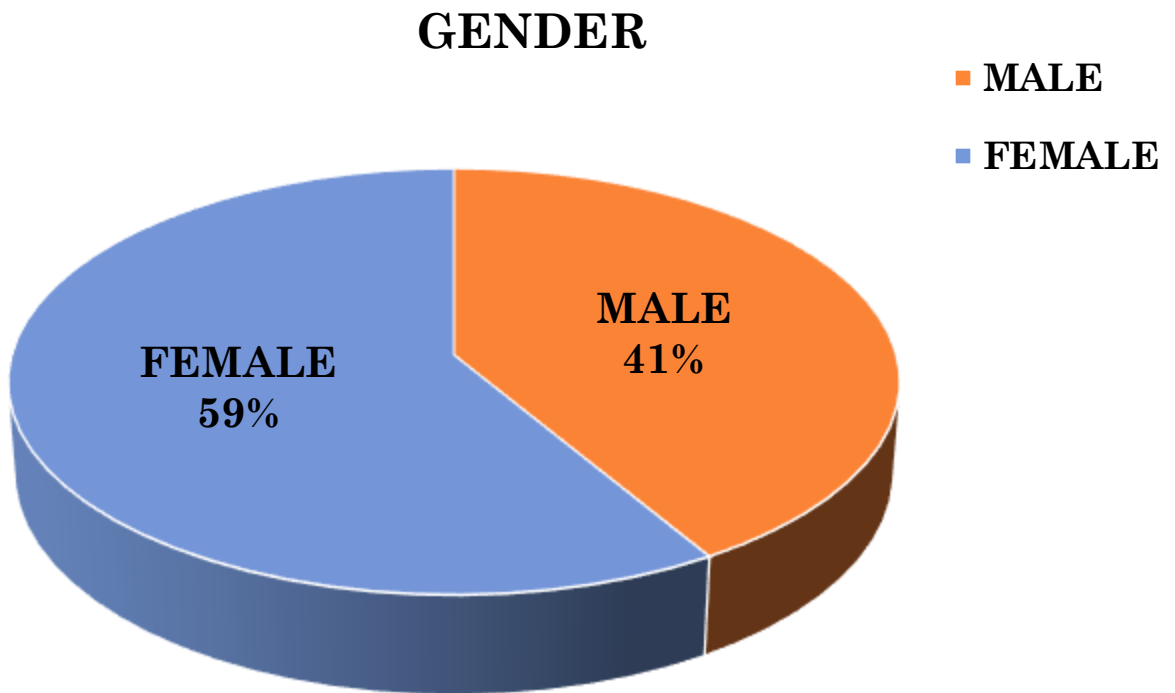


**2021**

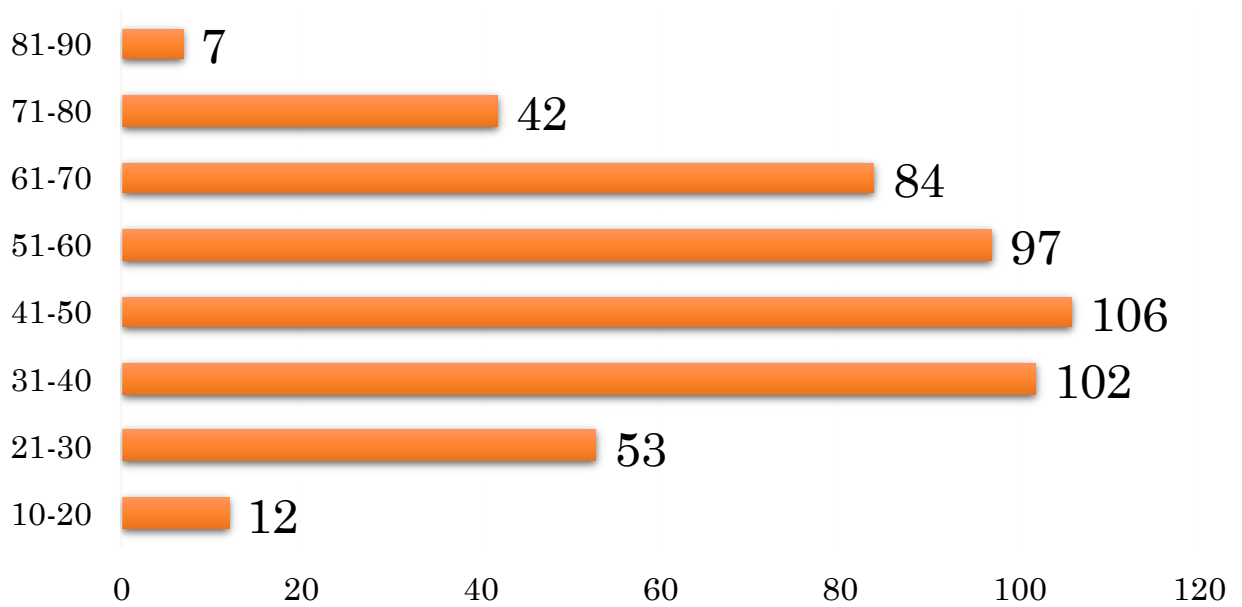


# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION

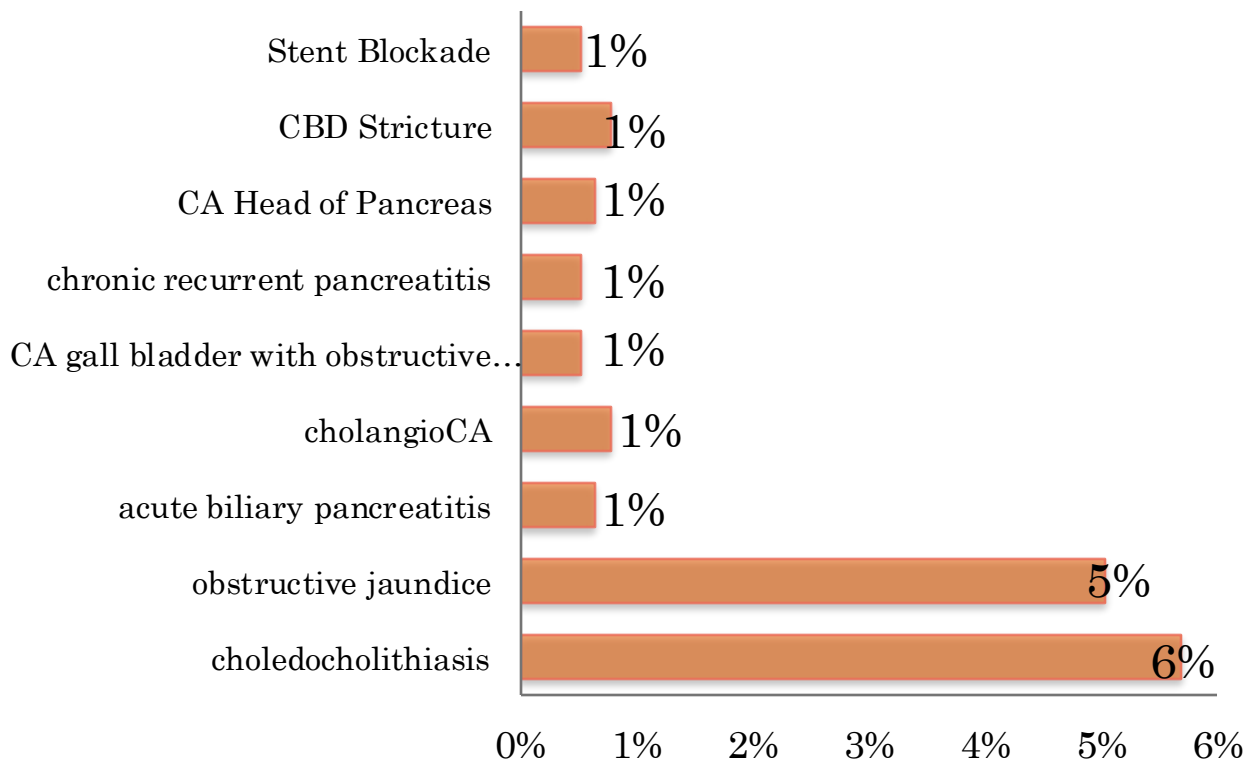
<b>Total No of Patients</b>	<b>773</b>
Male	320
Female	453



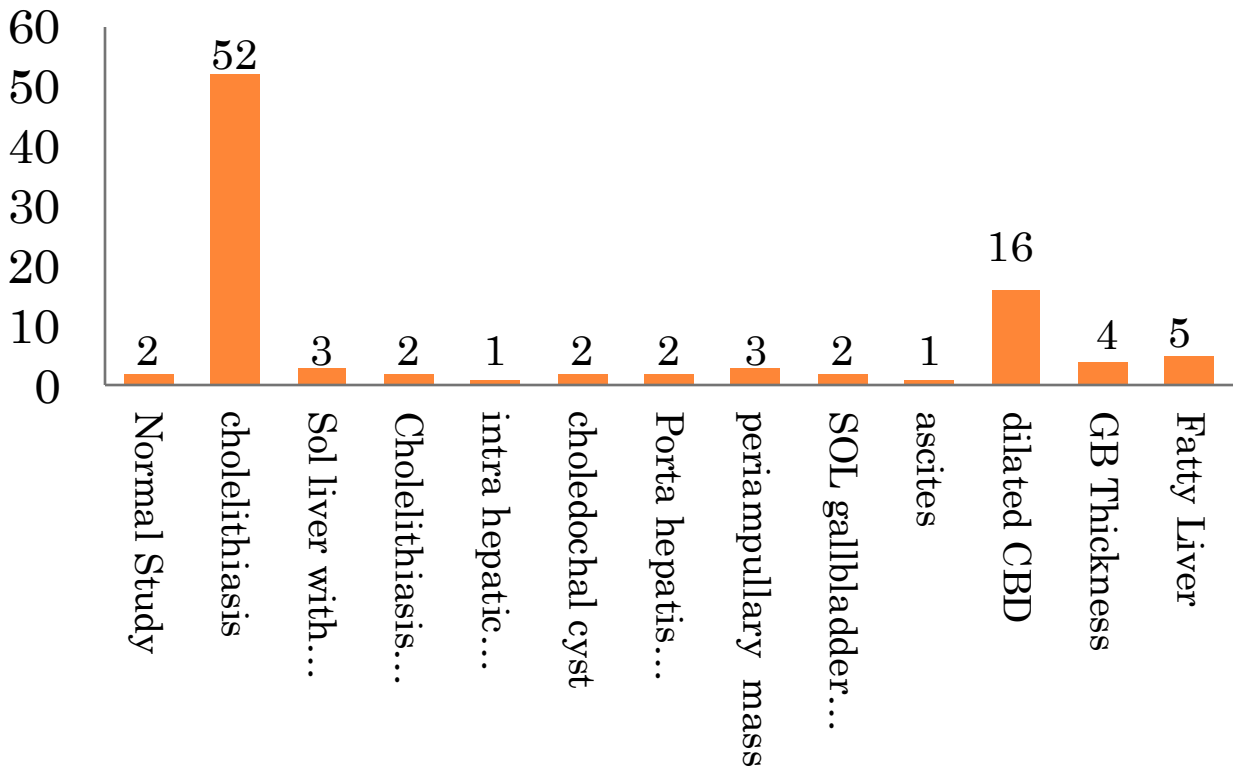
# AGE WISE DISTRIBUTION



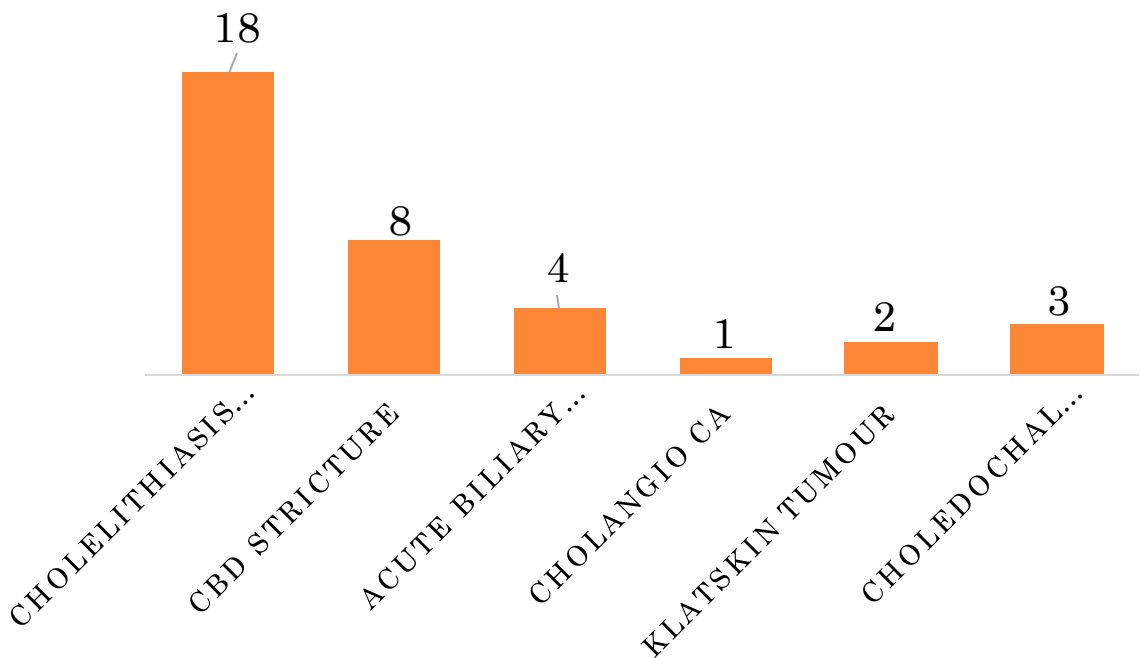
# ERCP INDICATION



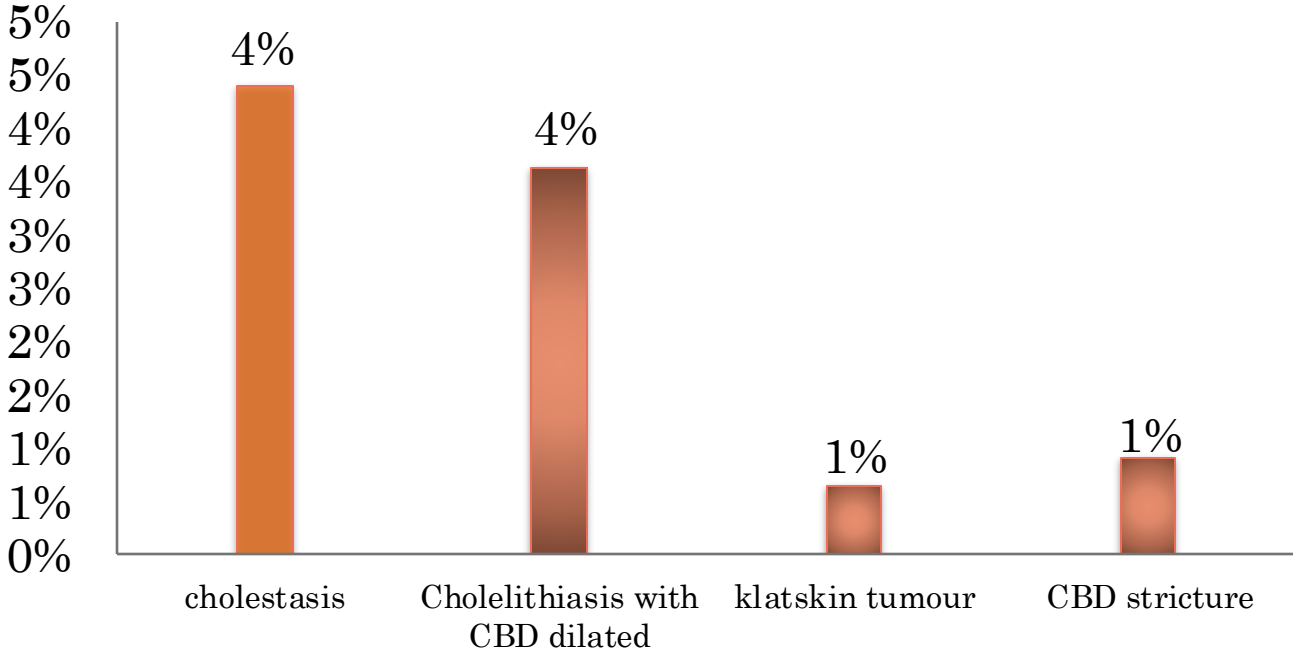
# USG FINDINGS



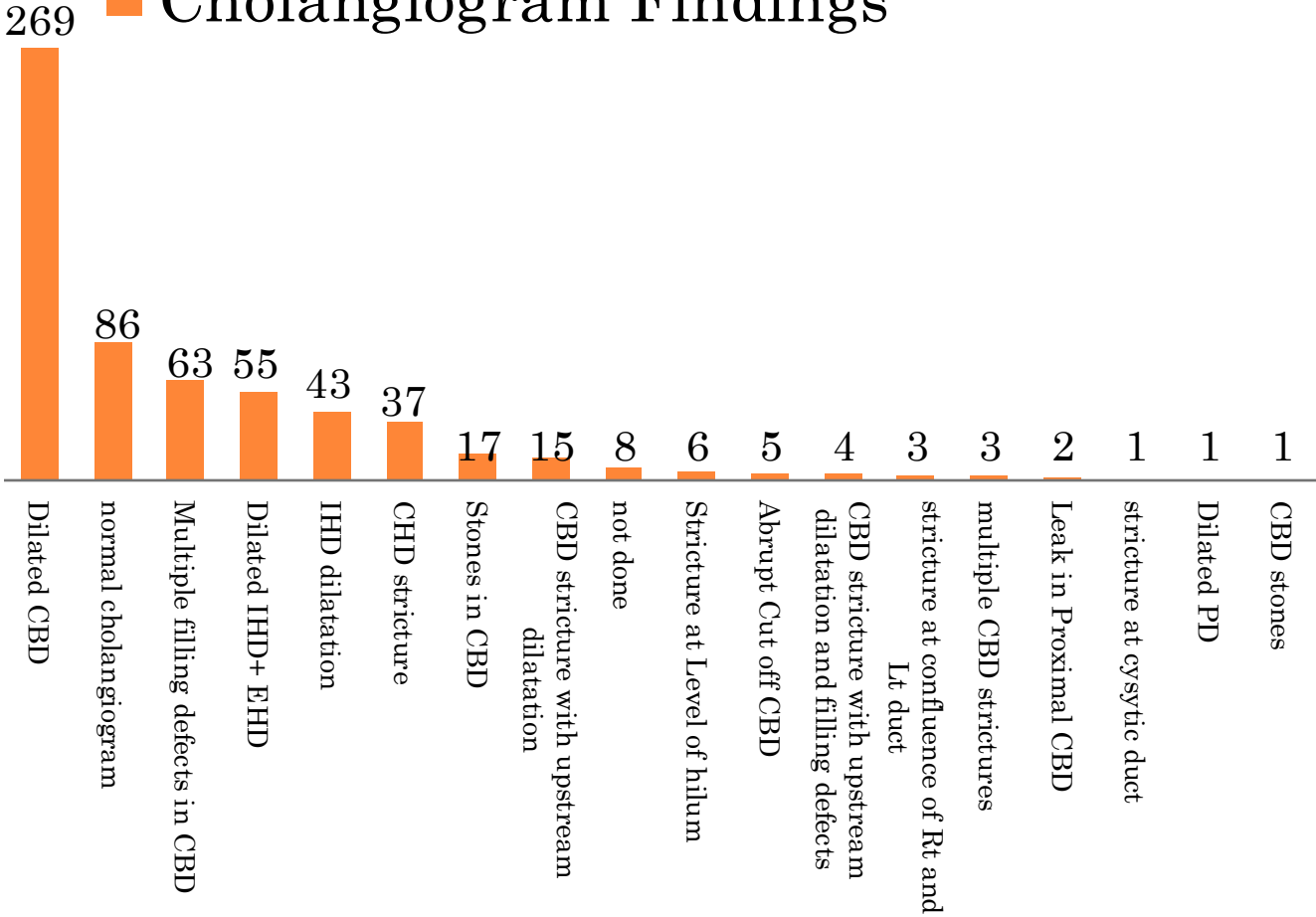
# CT SCAN FINDINGS



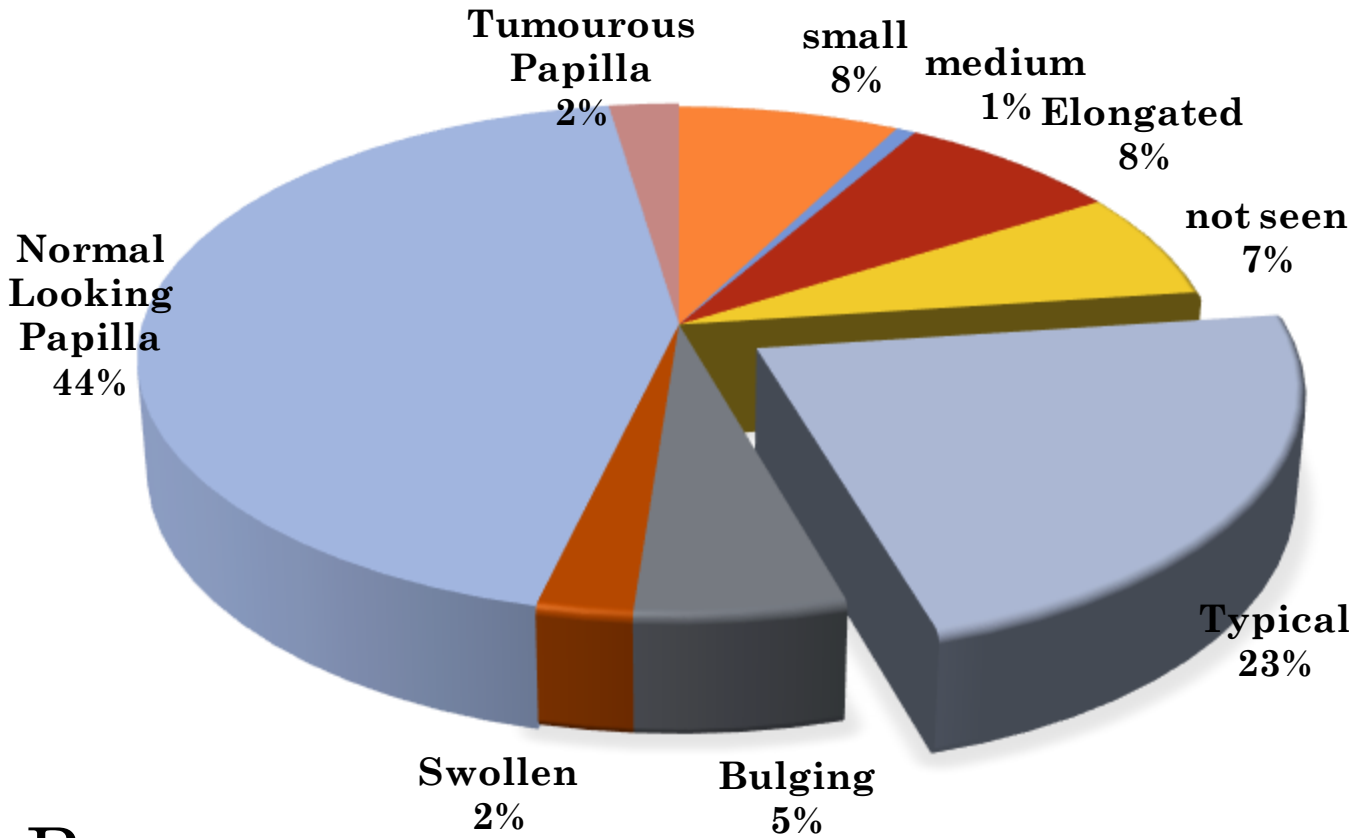
# MRCP FINDINGS



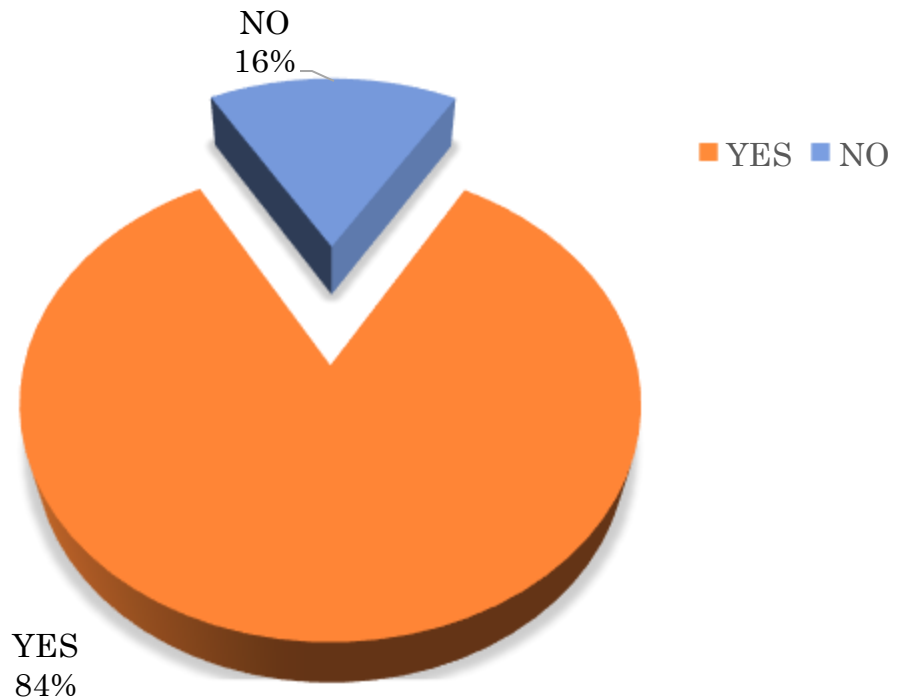
## Cholangiogram Findings



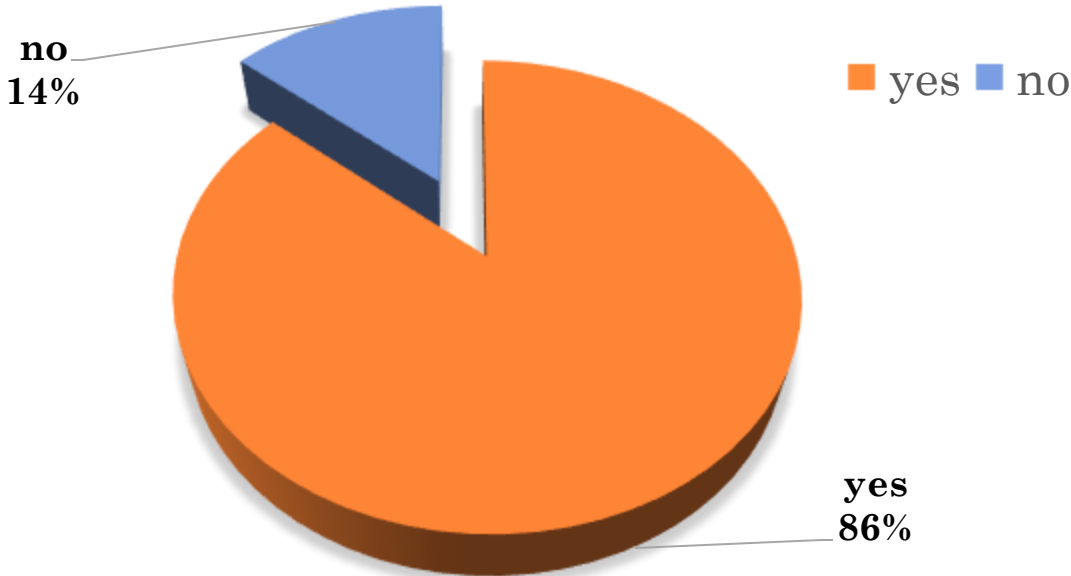
# TYPE OF PAPILLA



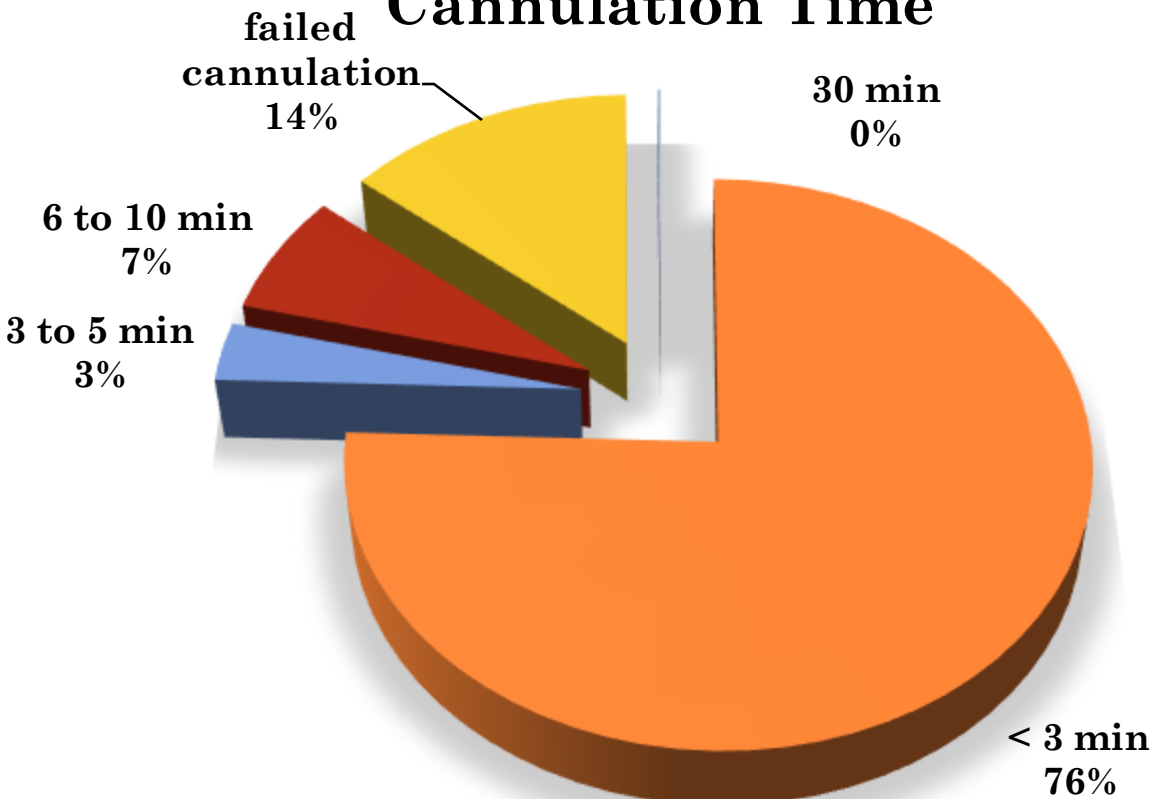
# BILE FLOW PRESENT



# CANNULATION SUCCESSFUL

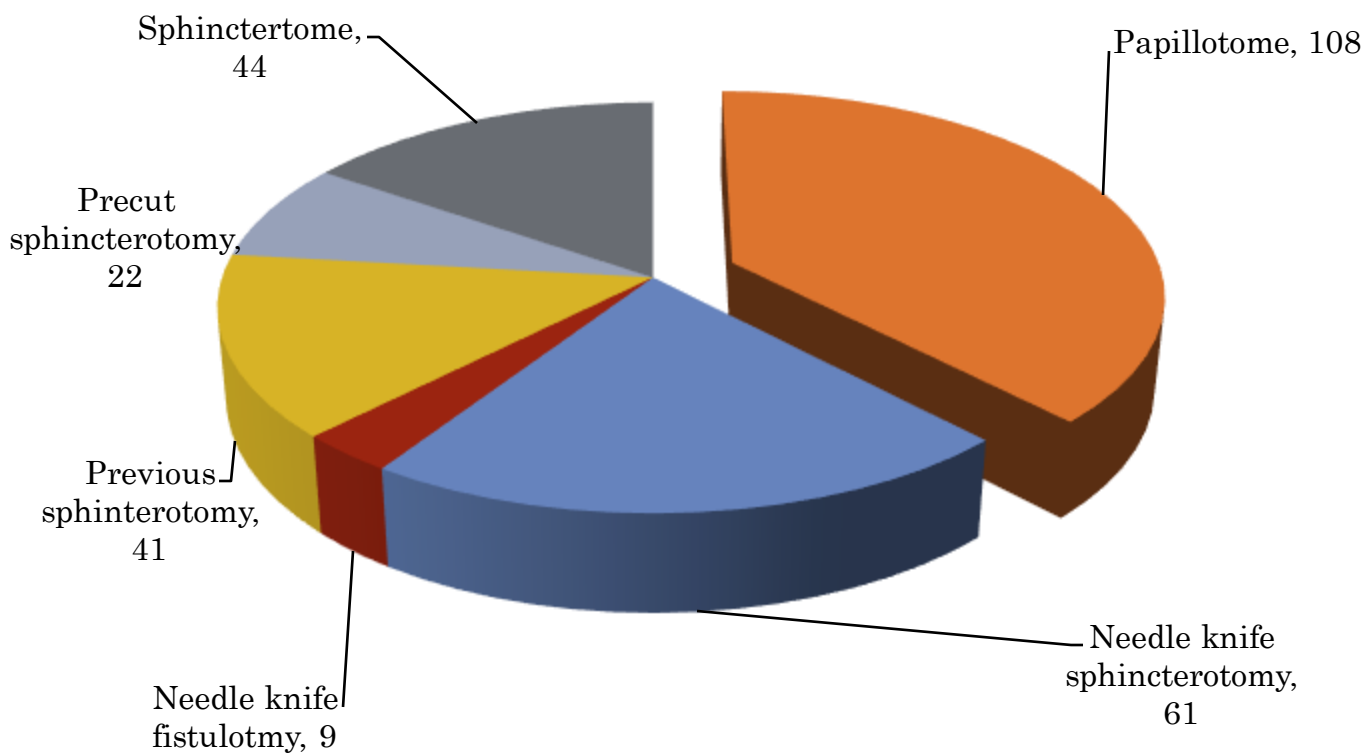
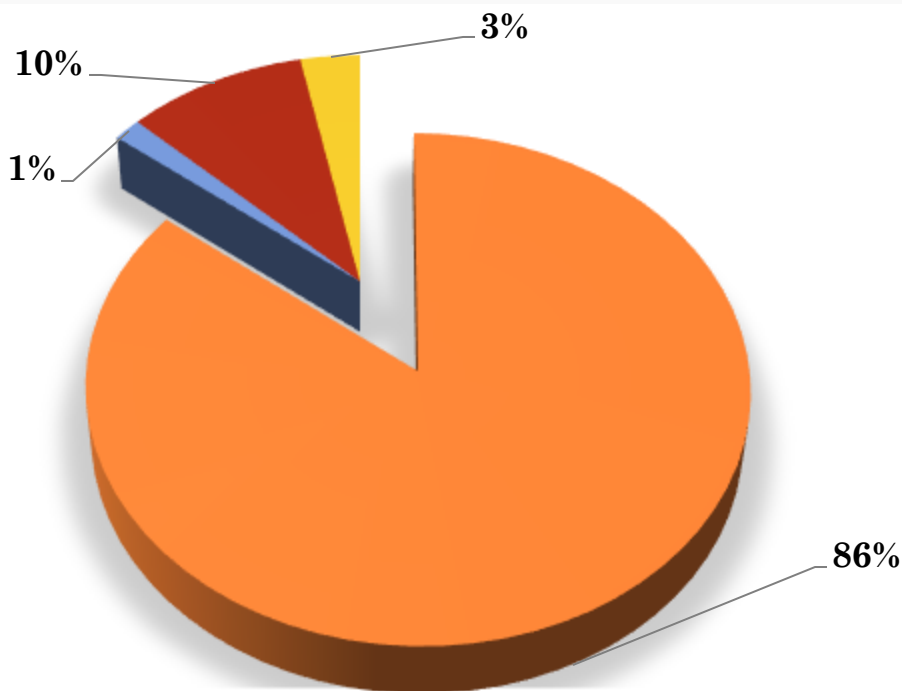


## Cannulation Time

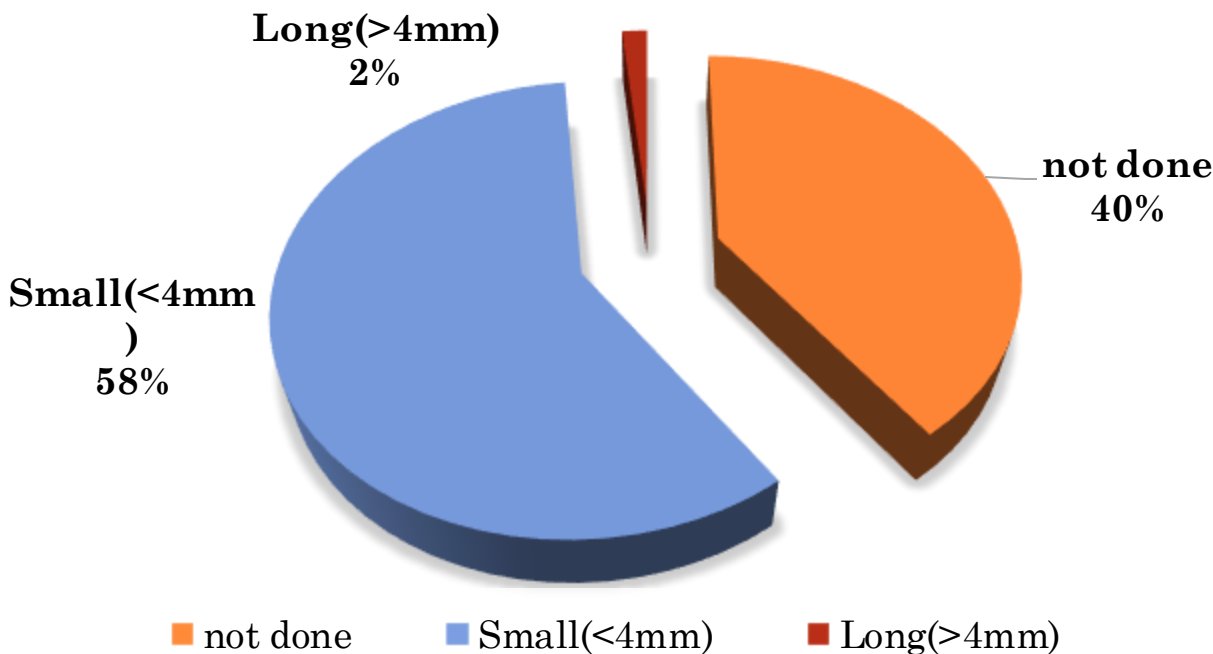


# DIFFICULT CANNULATION

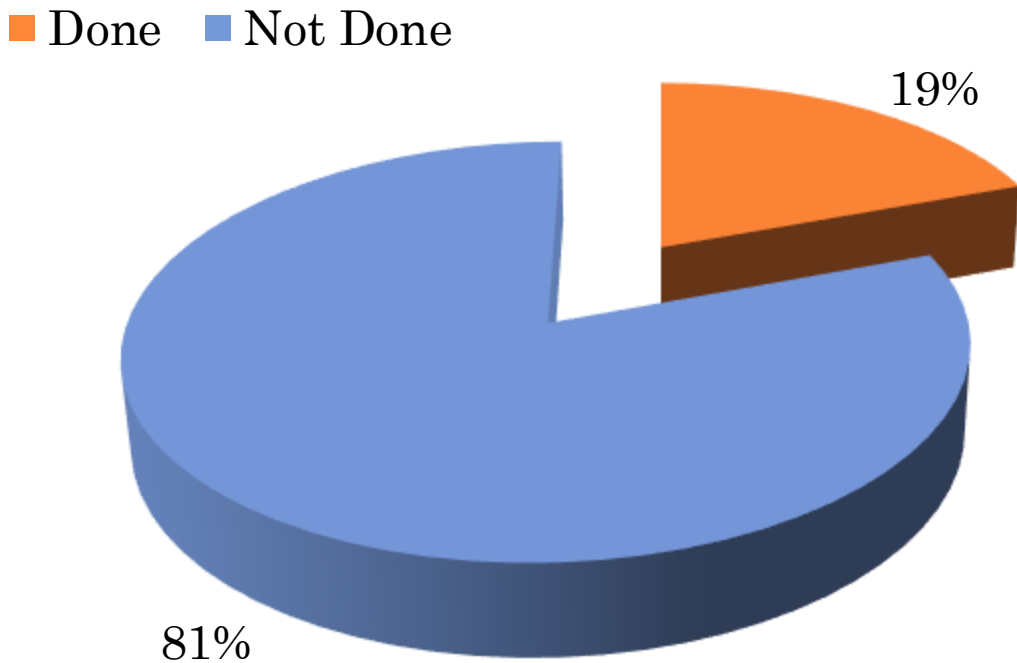
Easy Medium Difficult Failed



# SPHINCTEROTOMY

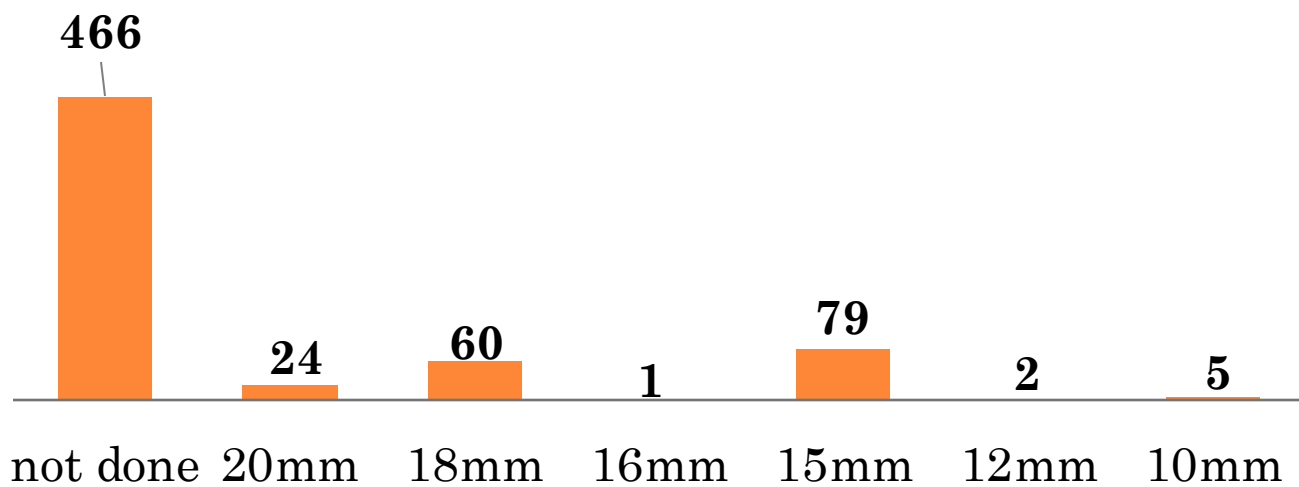


# Sphincteroplasty





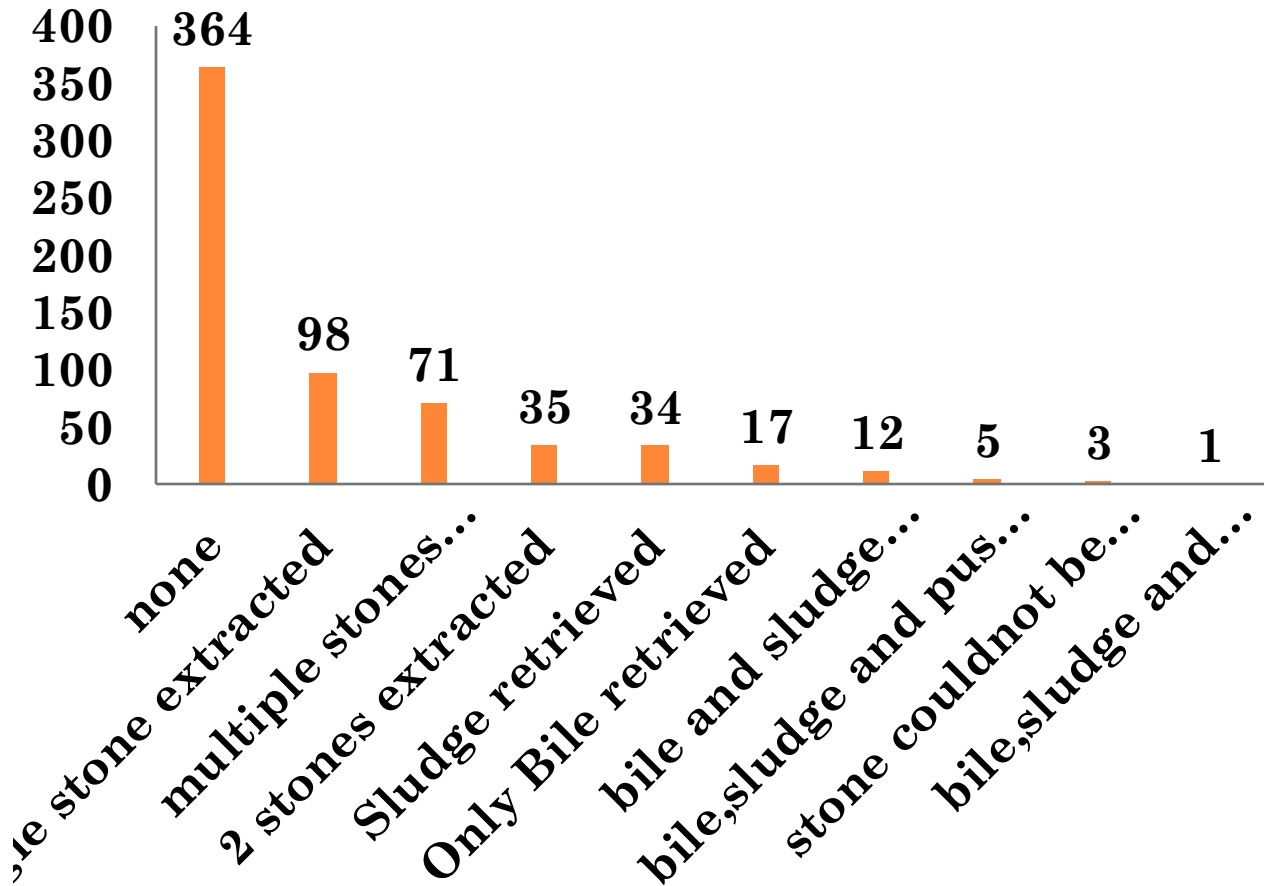
# BALLOON DILATION DIAMETER



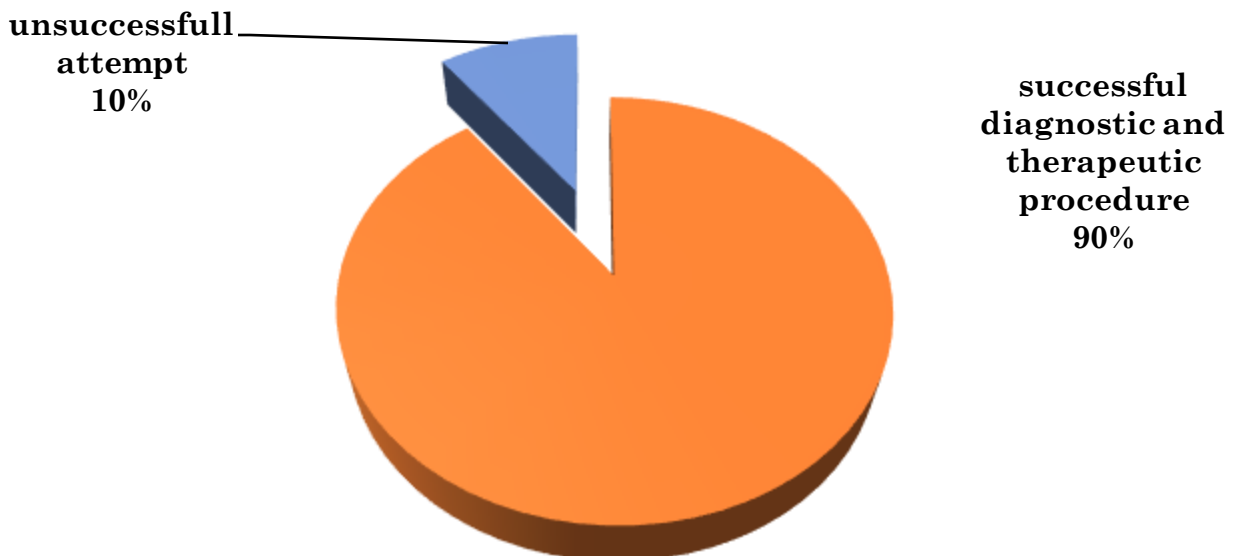
# Balloon Sweep Performed



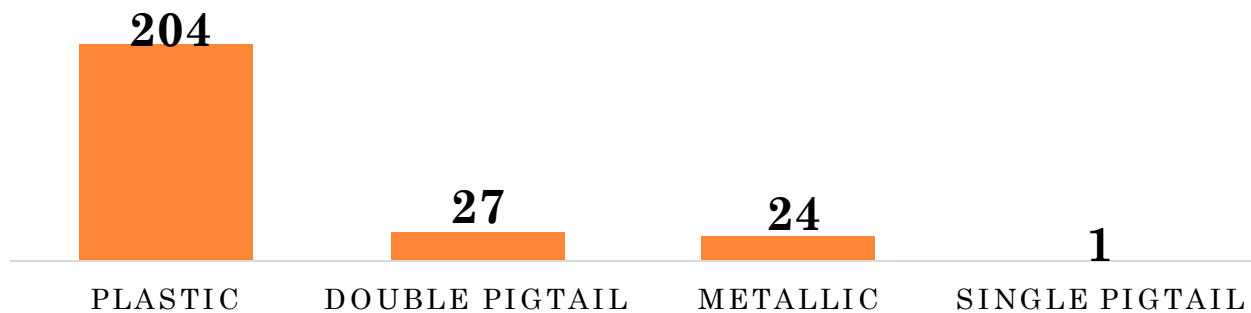
# STONE AND SLUDGE EXTRACTION



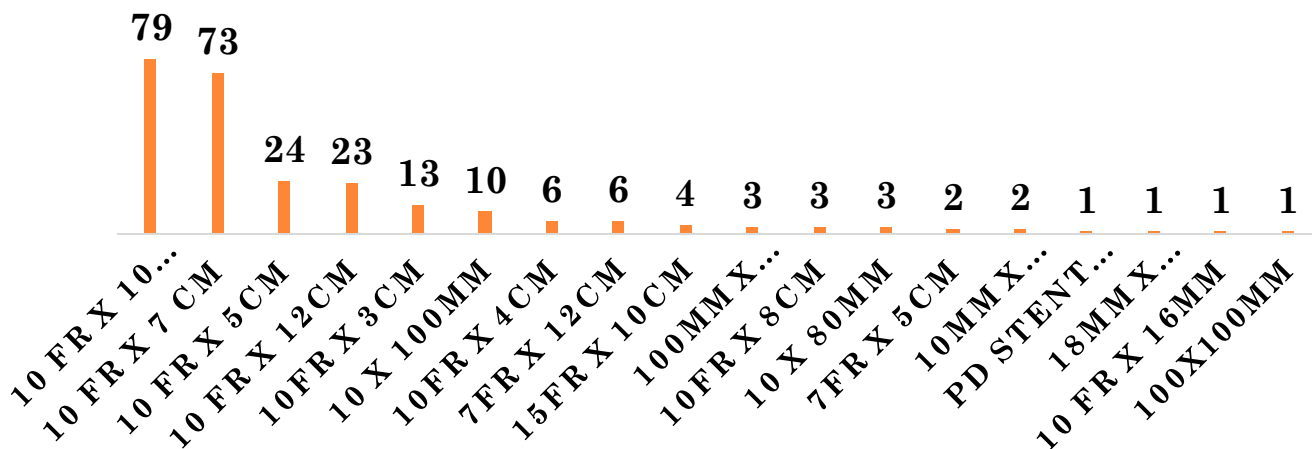
## Procedure Successful Rate



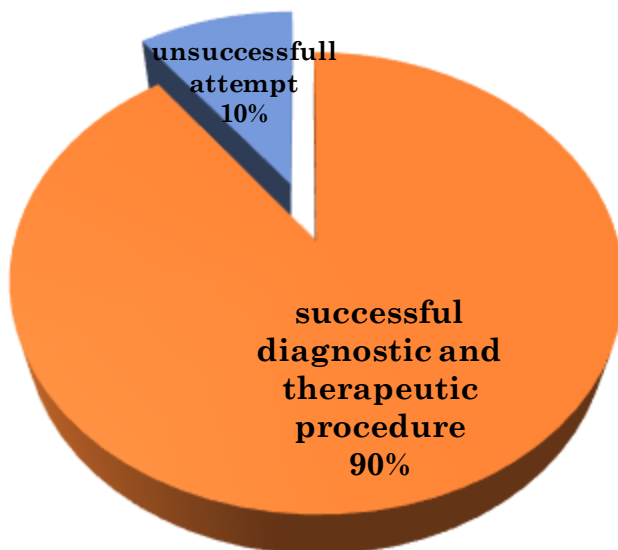
# STENT PLACED



# SIZE OF STENTS



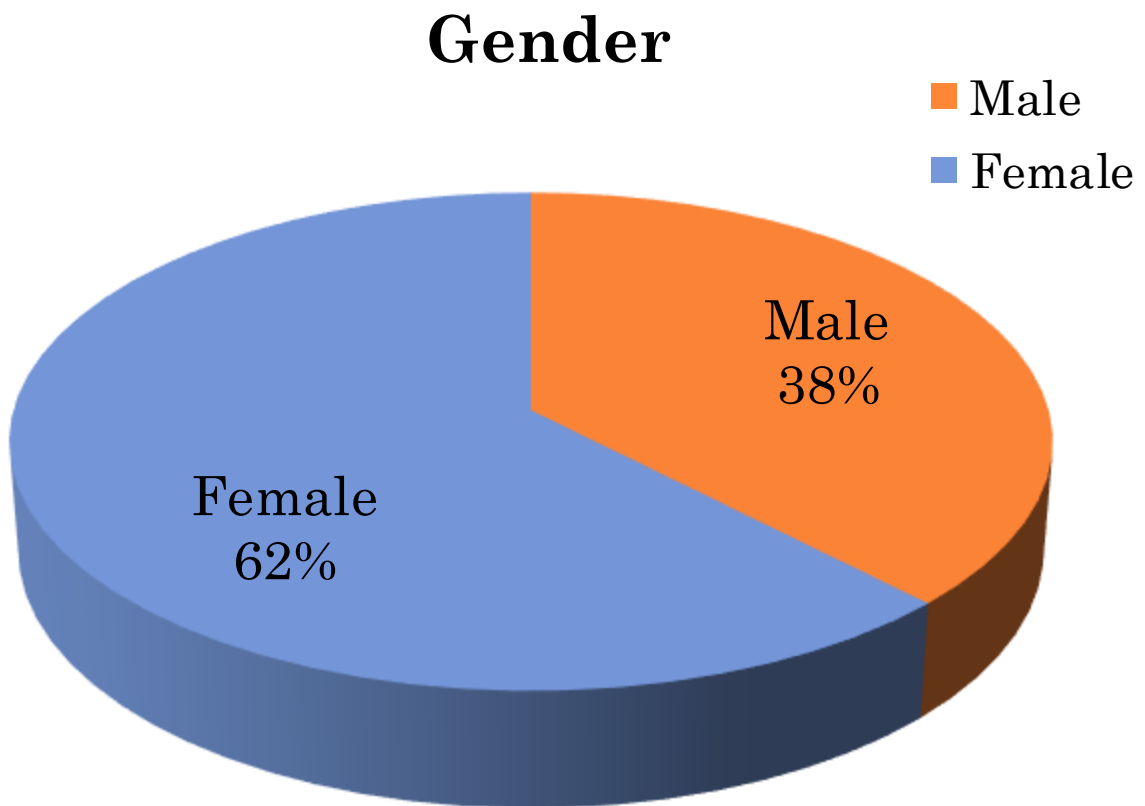
# PROCEDURE SUCCESSFUL RATE



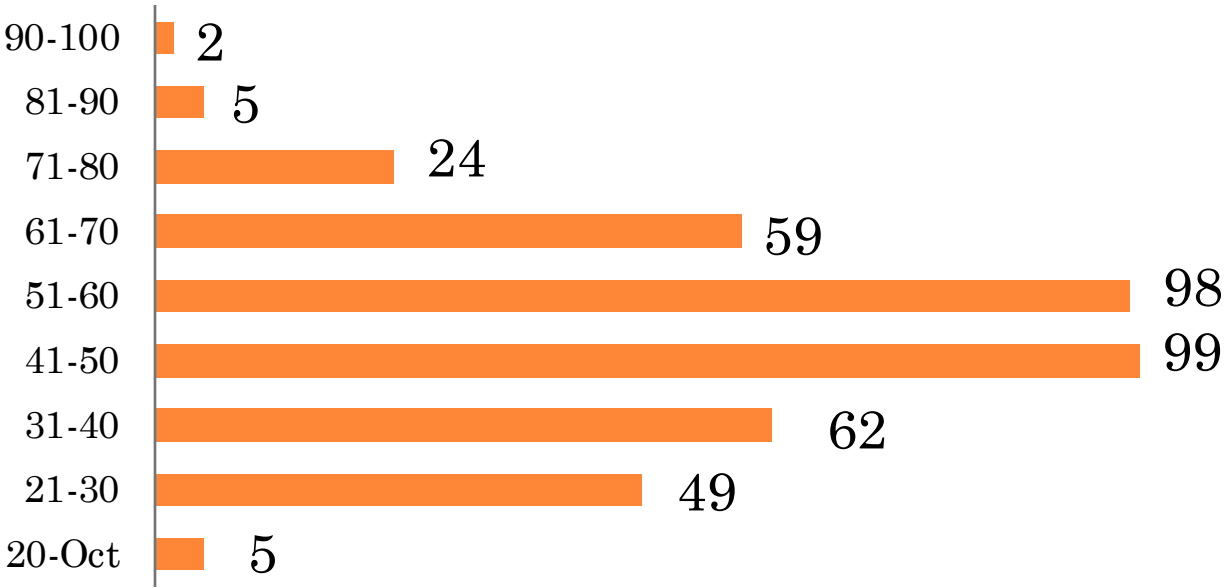
**2022**

# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION.

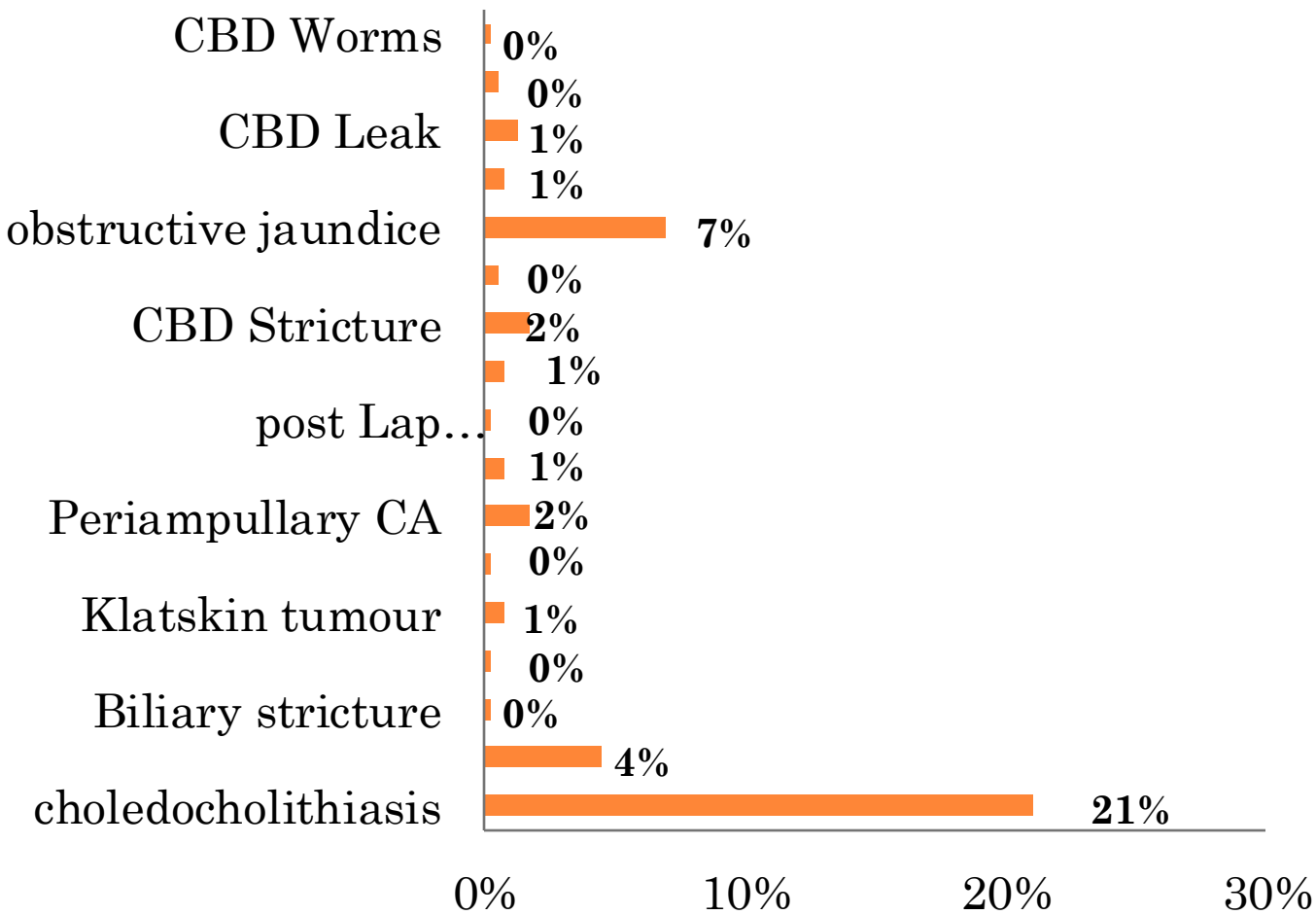
<b>Total No of Patients</b>	<b>403</b>
Male	152
Female	251



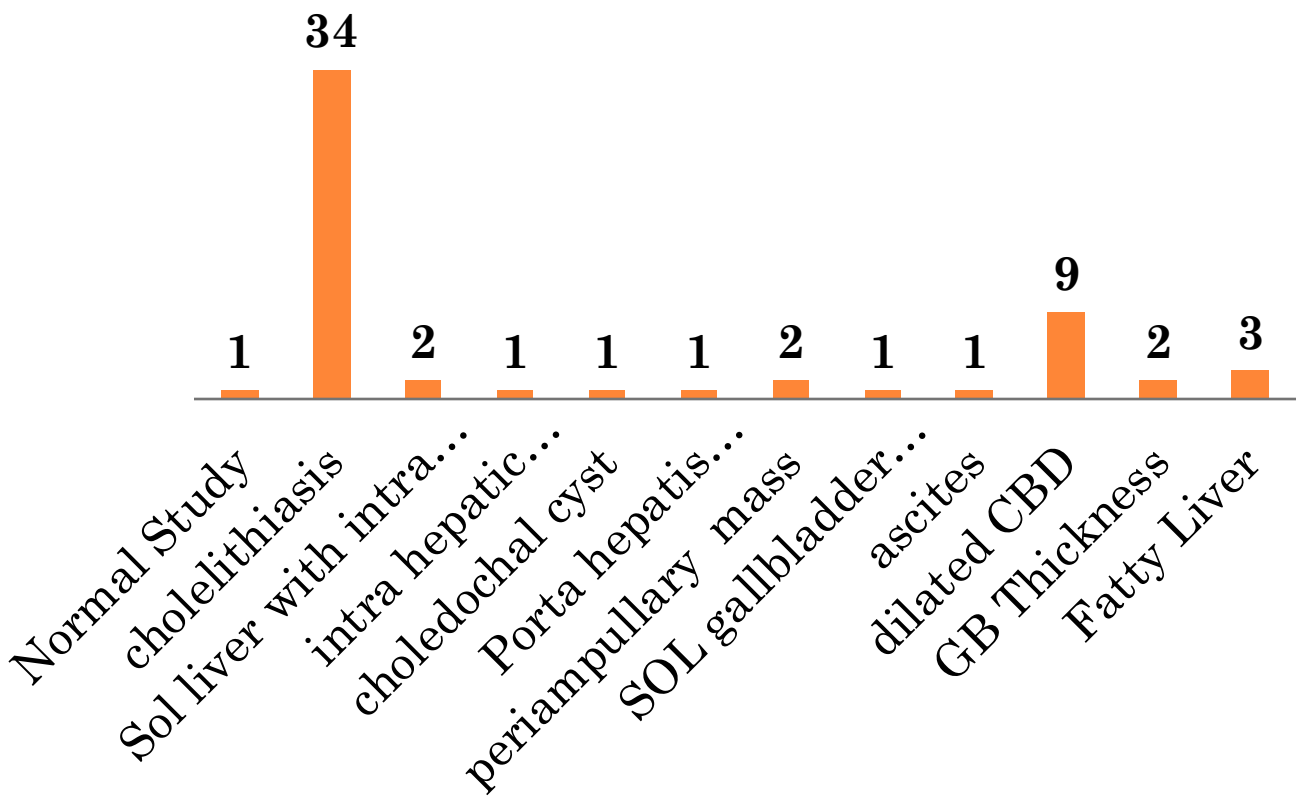
# AGE WISE DISTRIBUTION



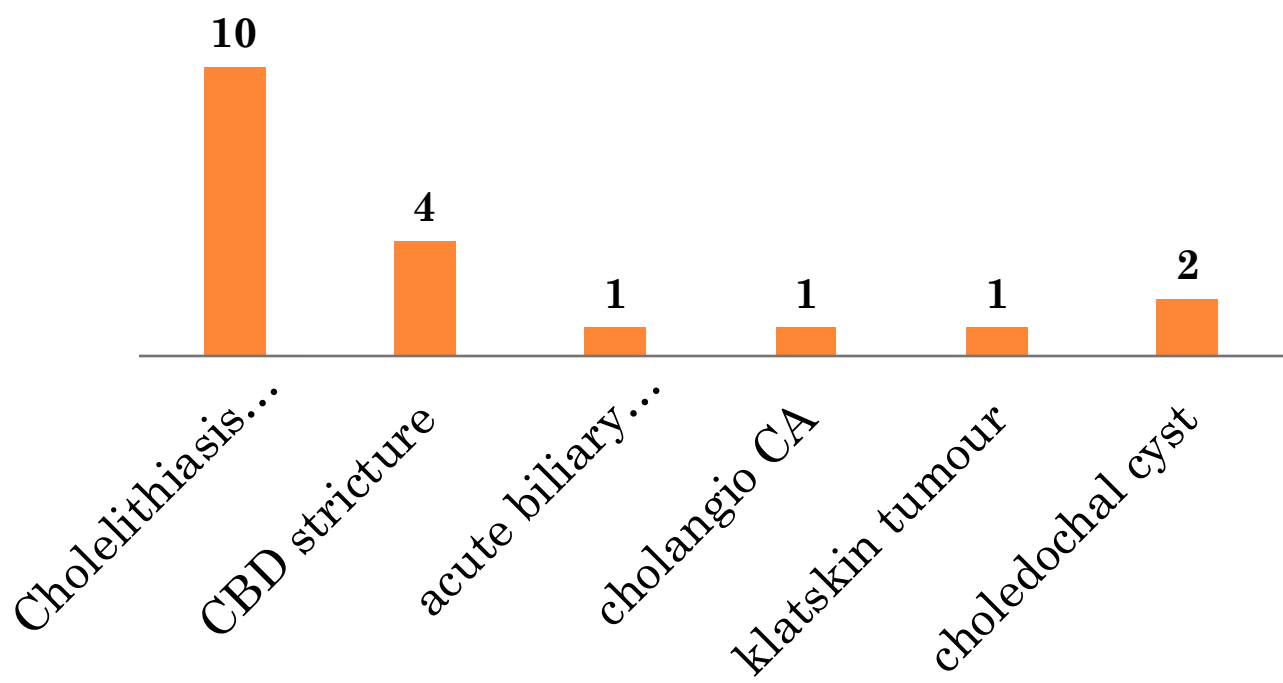
# ERCP INDICATION



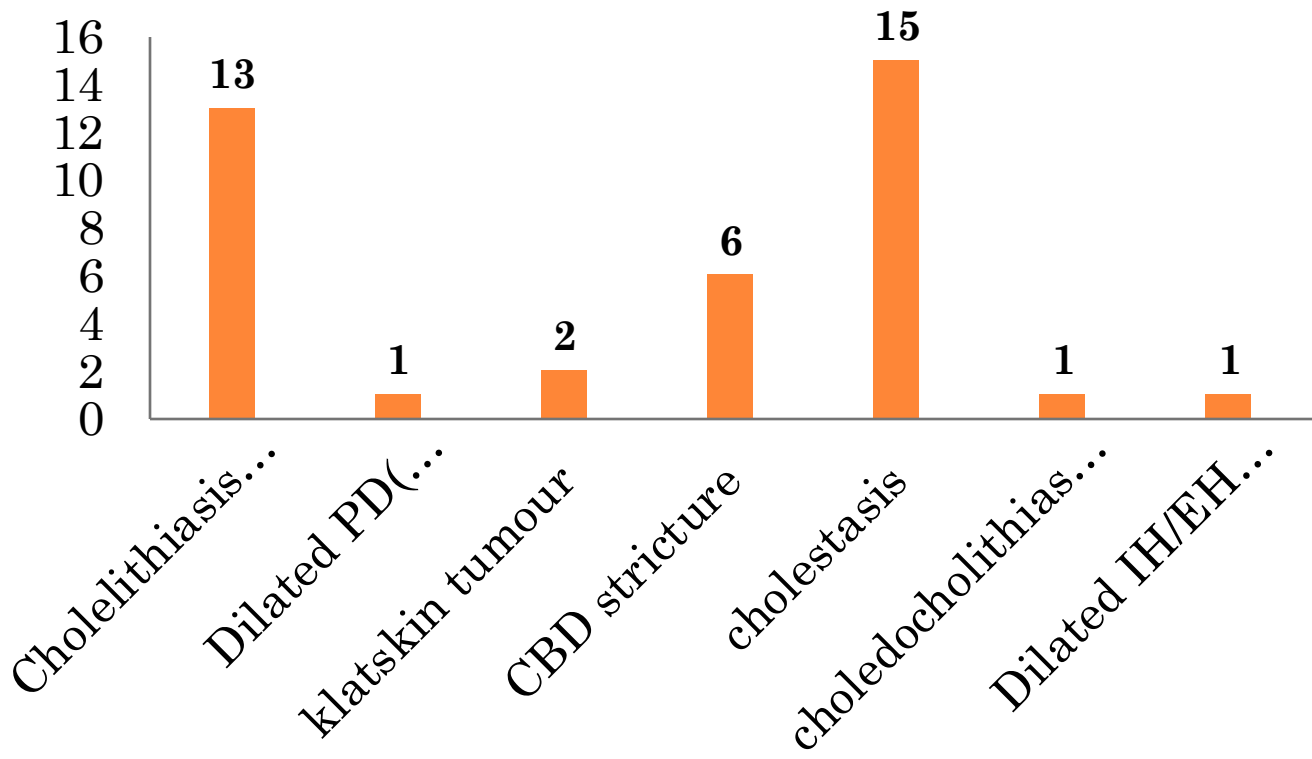
# USG AND CT SCAN FINDINGS



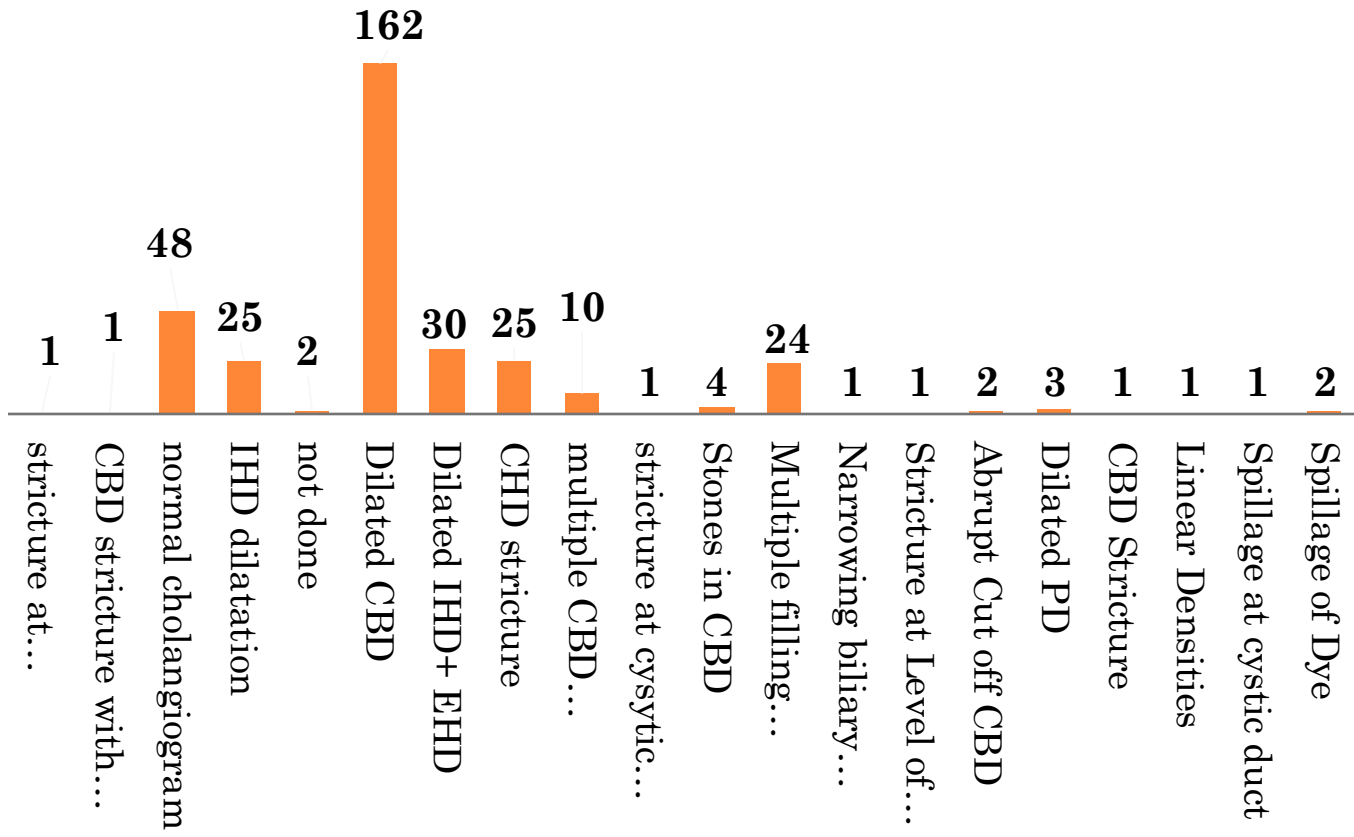
## CT Scan



# MRCP FINDINGS

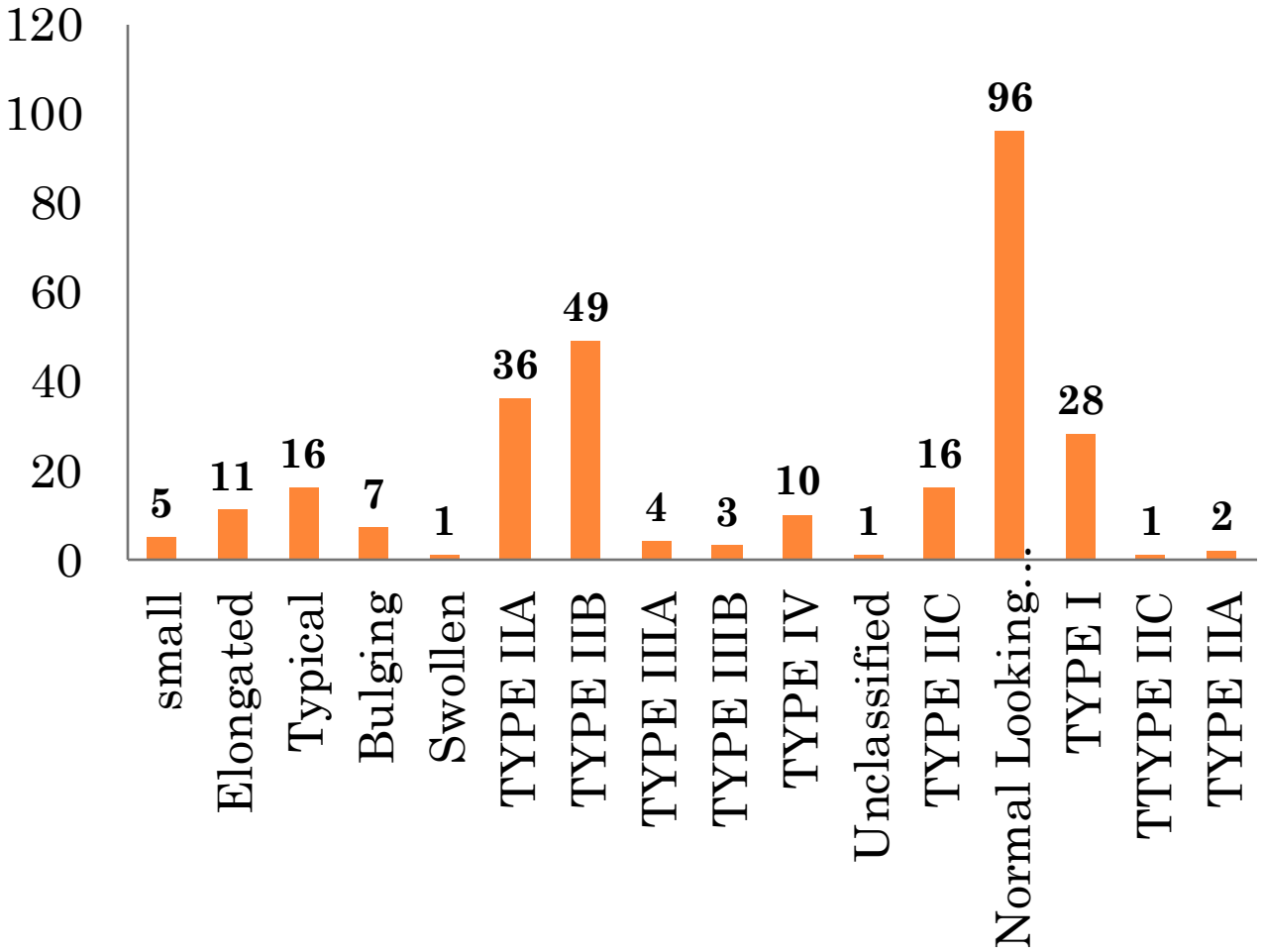


# Cholangiogram Findings

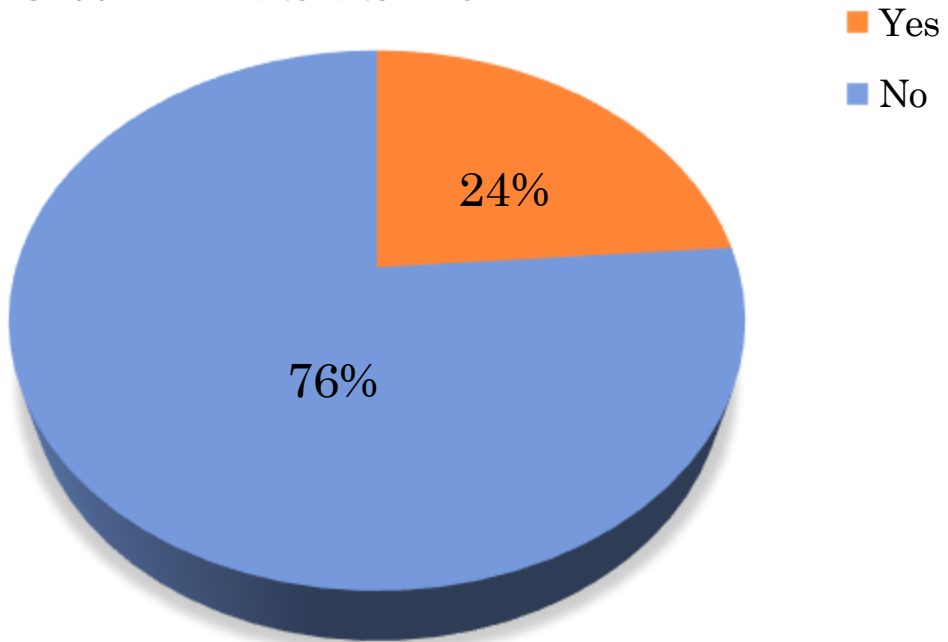




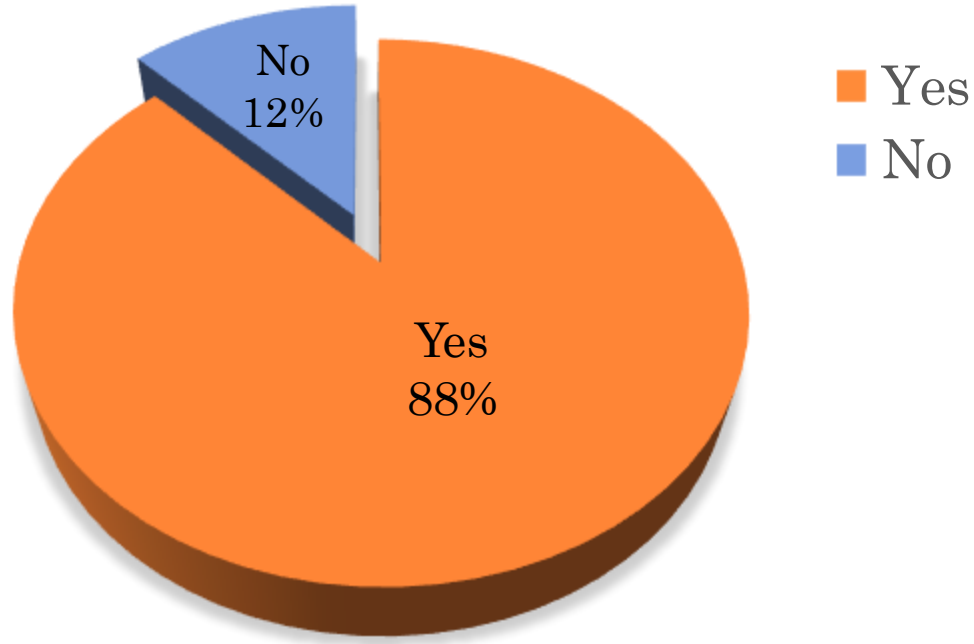
# TYPE OF PAPILLA



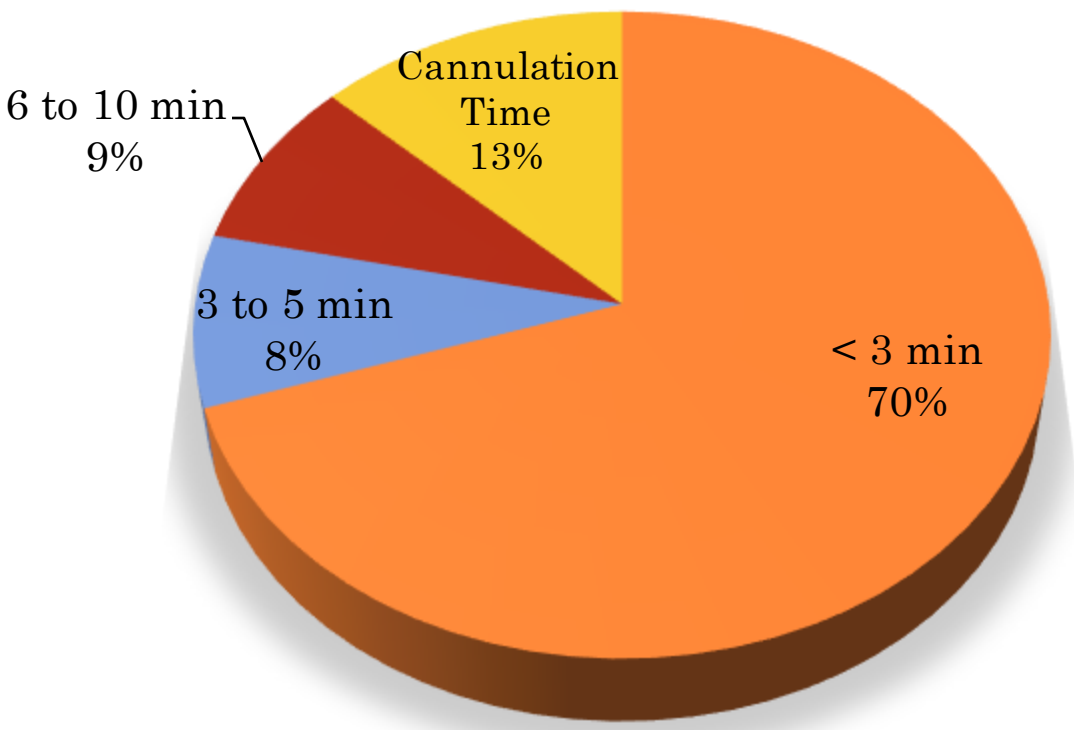
# Bile Flow Presesnt



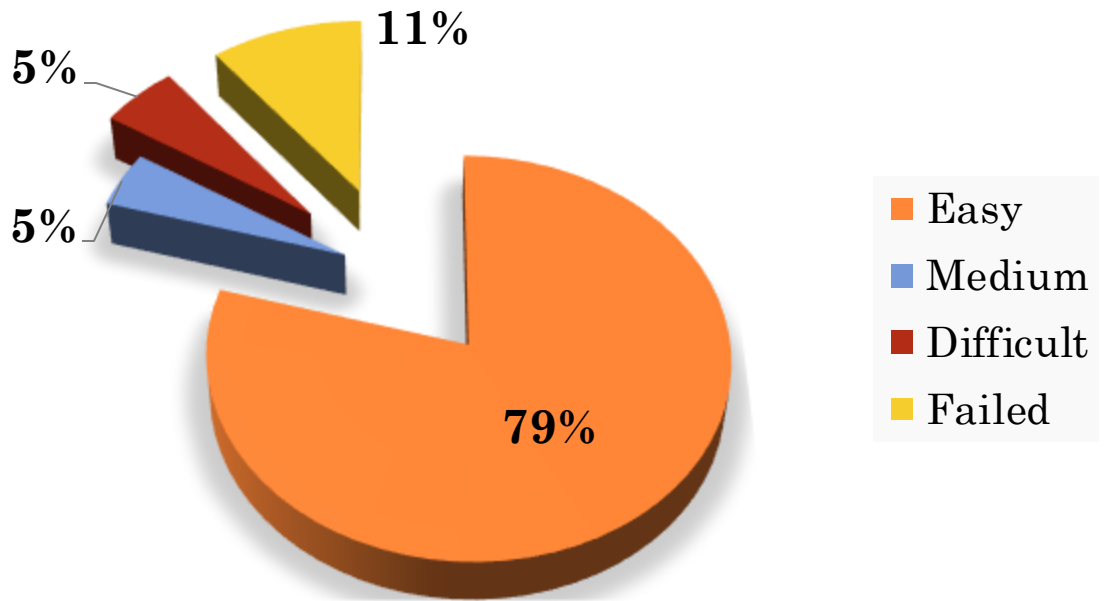
# CANNULATION SUCCESSFUL



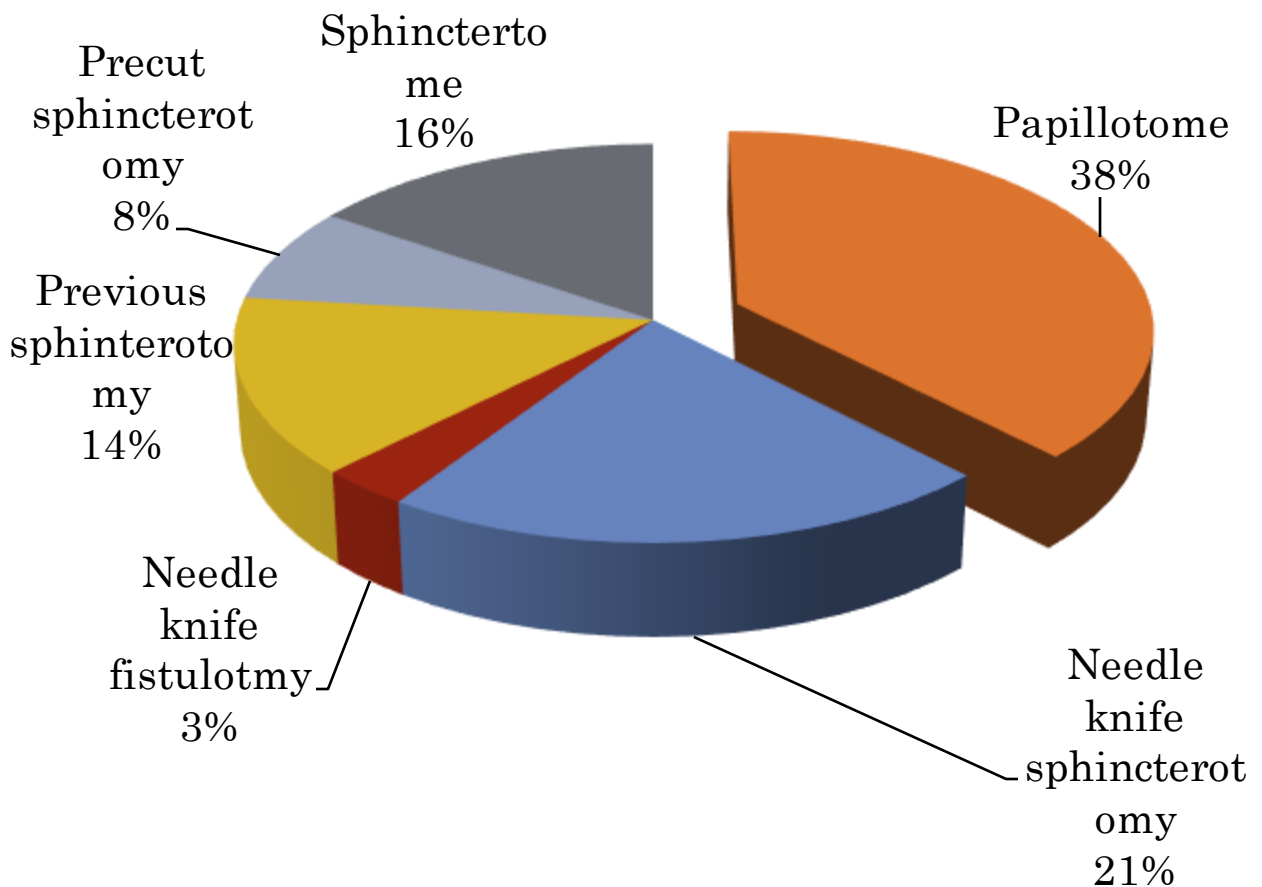
# CANNULATION TIME IN MINUTES



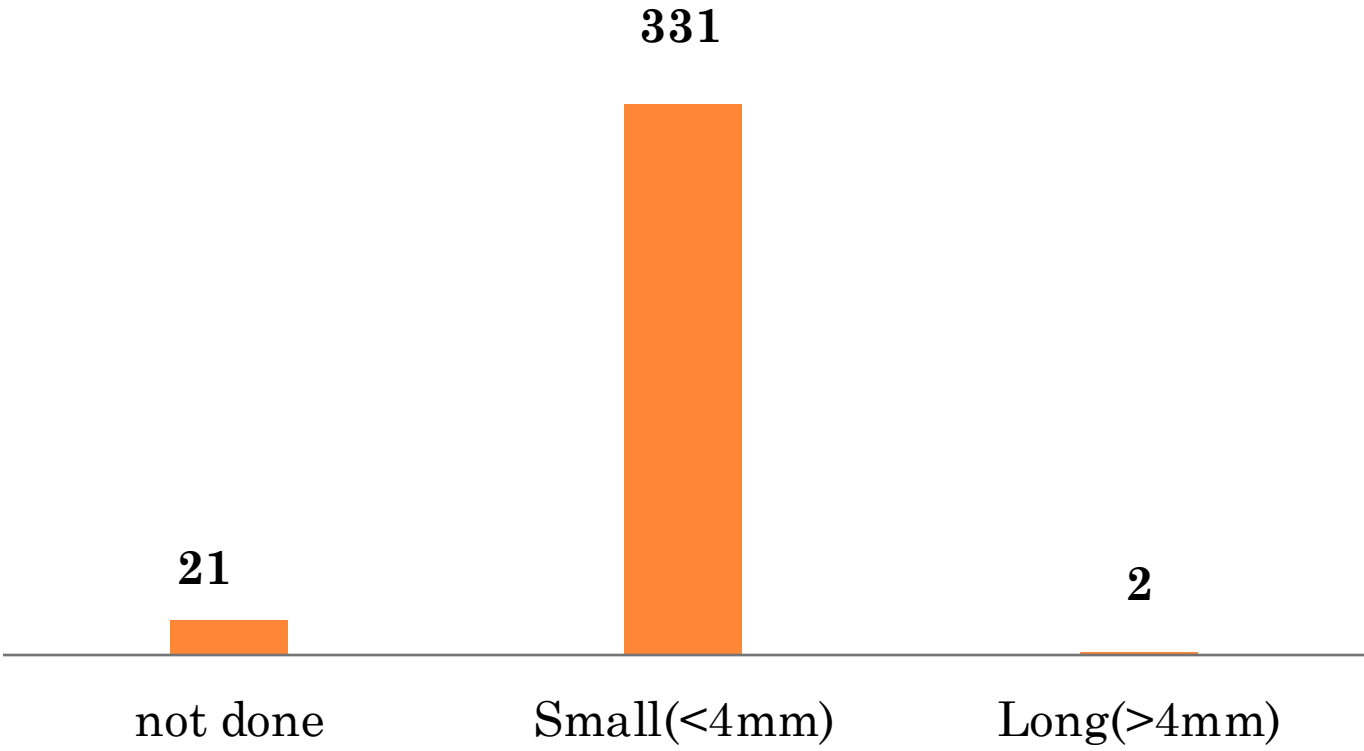
# DIFFICULT CANNULATION



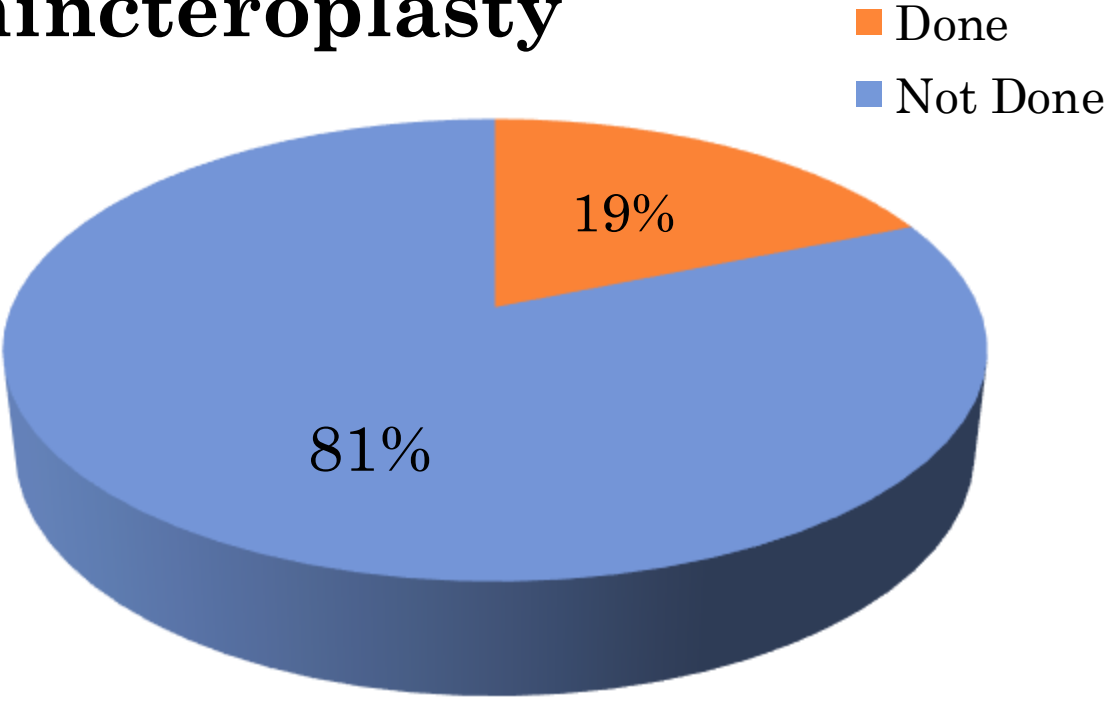
# CANNULATION INSTRUMENT



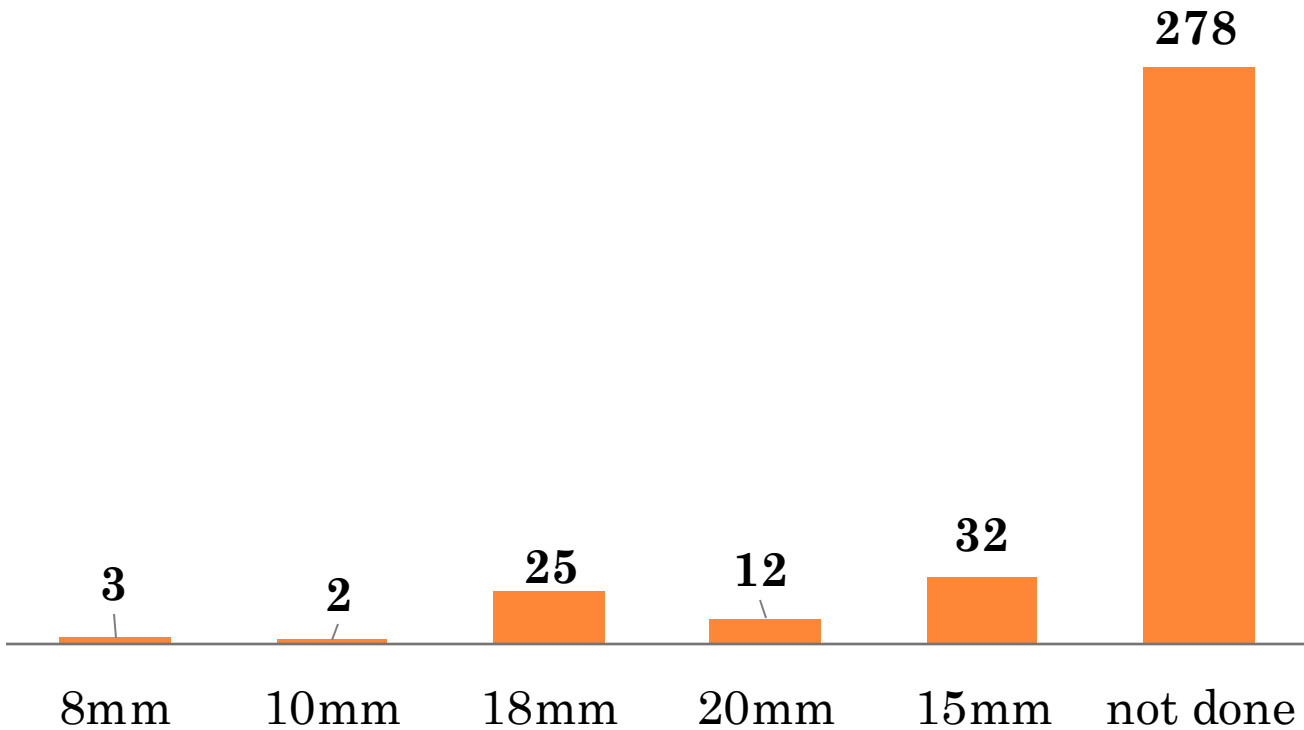
# SPHINCTEROTOMY



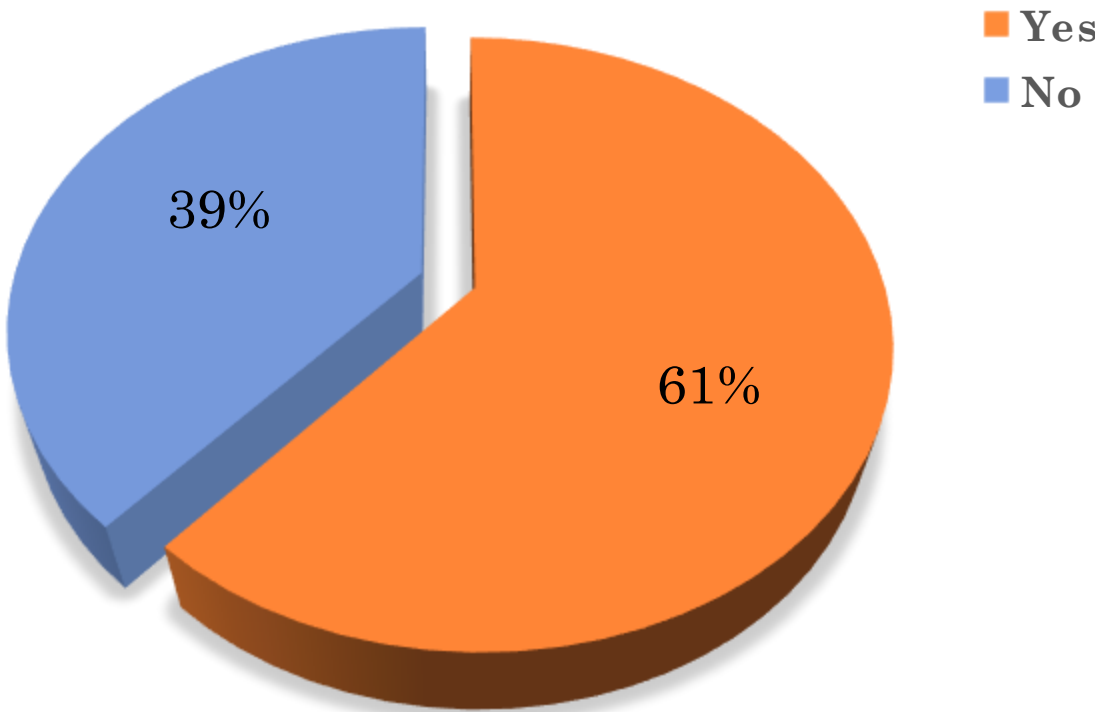
# Sphincteroplasty



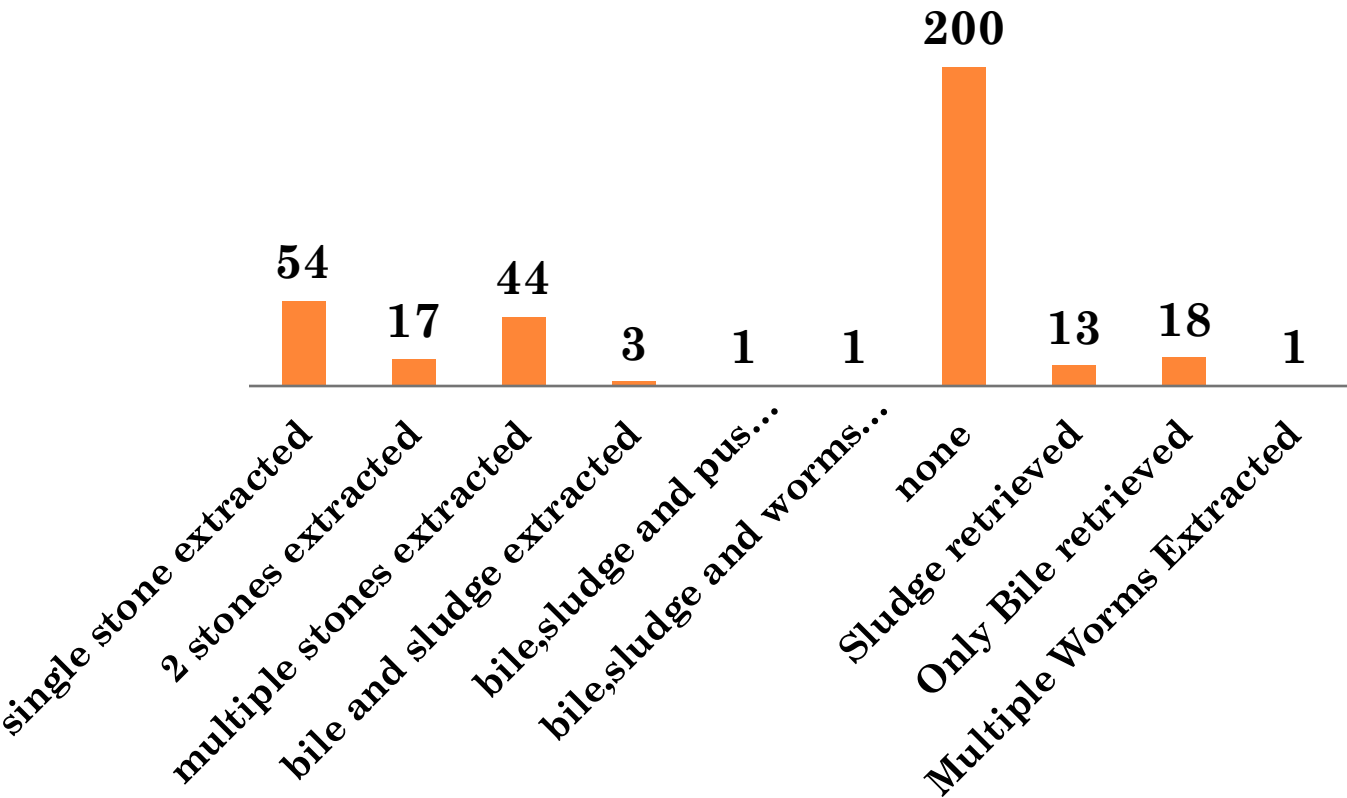
# BALLOON DILATION DIAMETER



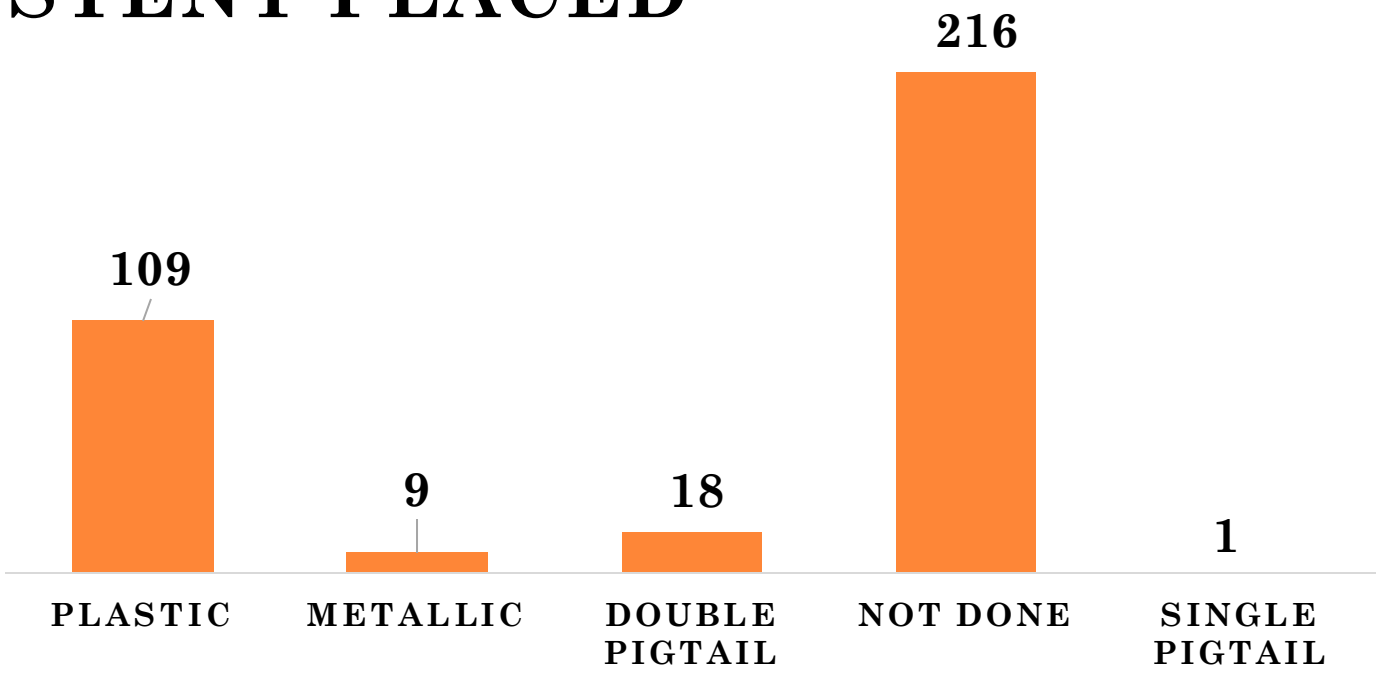
## Balloon Sweep Performed



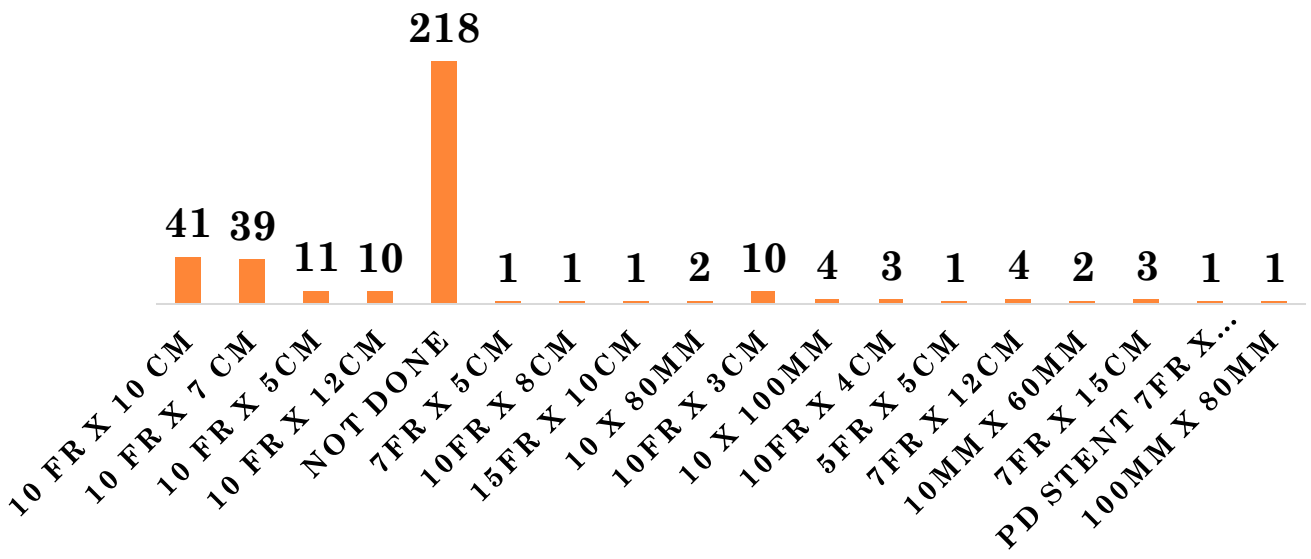
# STONE AND SLUDGE EXTRACTION



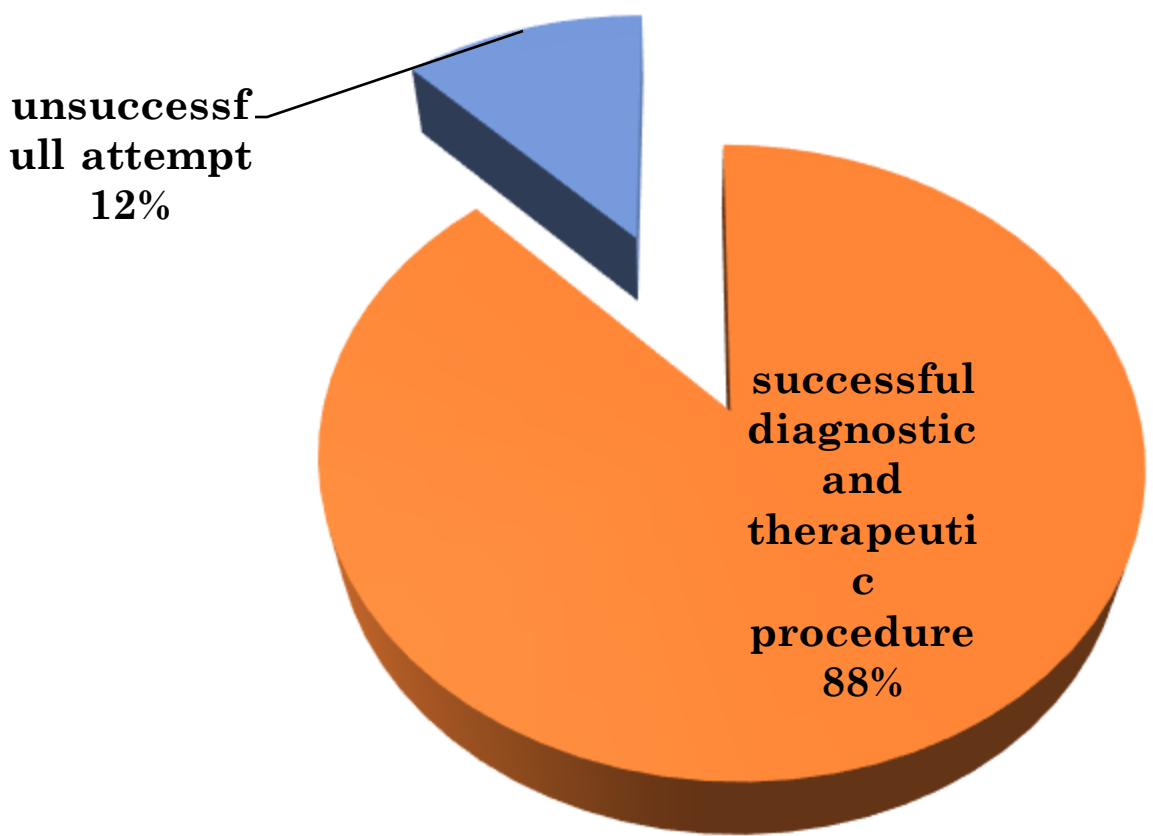
# STENT PLACED



# SIZE OF STENTS



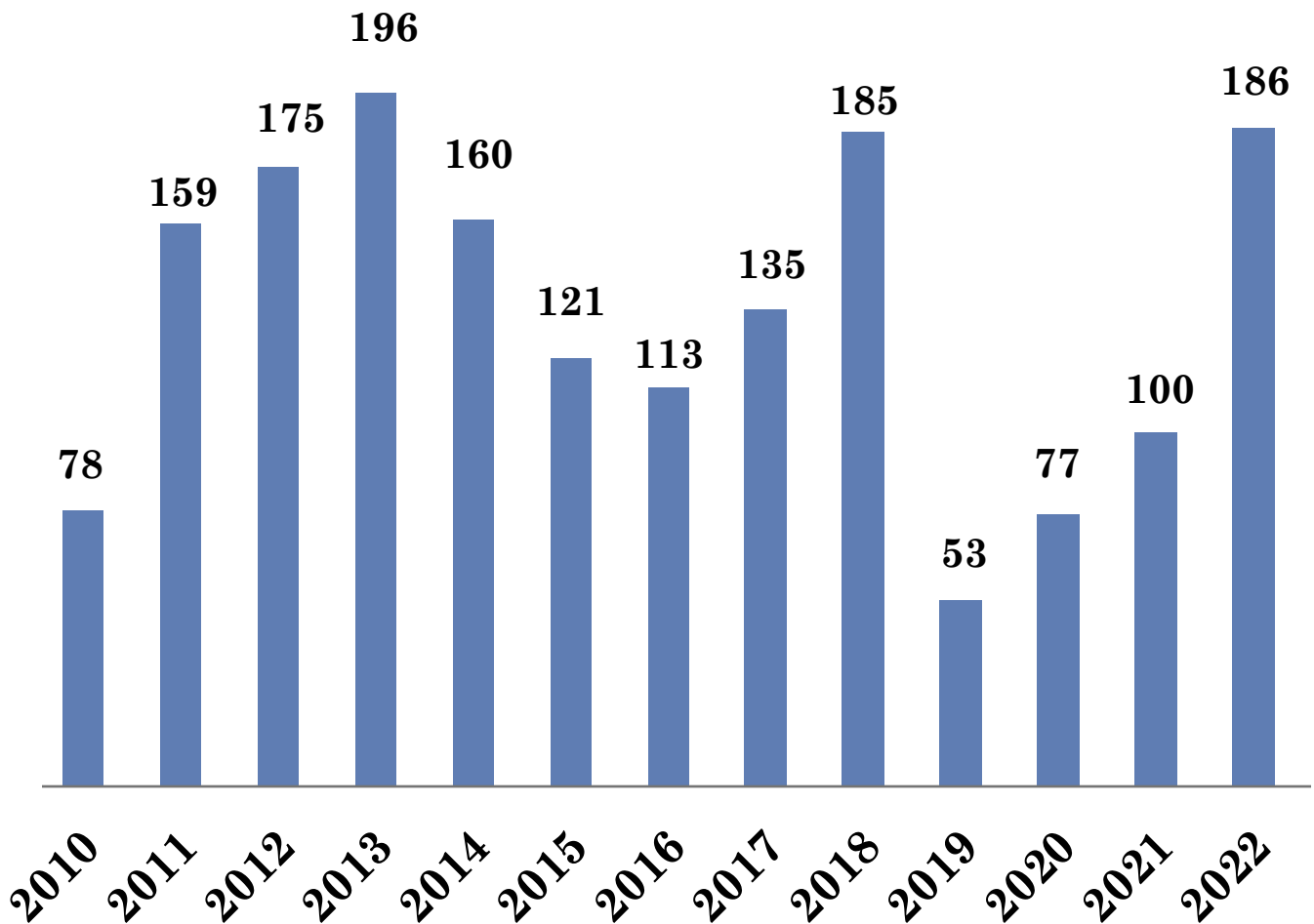
# PROCEDURE SUCCESSFUL RATE



PD CANNULATION 60 TIMES

# EUS Audit

- EUS is a novel minimally invasive technique with very limited availability in Pakistan. Our center is one of the oldest center providing this facility free of cost in public sector of Pakistan. More than 1700 patients took advantage of this procedure since its availability in our center. Our center has also the availability of onsite Histology by consultant histopathologist. During the COVID year the center facilitated 77 patients in 2020 and 100 patients in 2021. The number again raised to 186 in 2022.



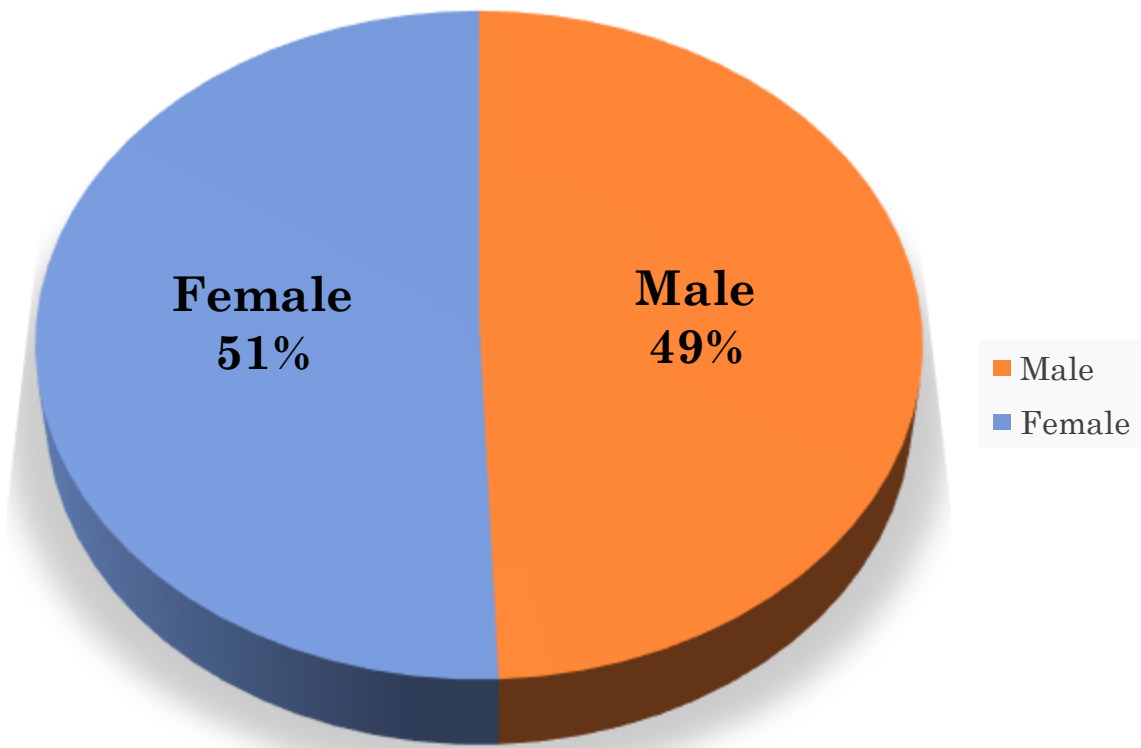


**2020**

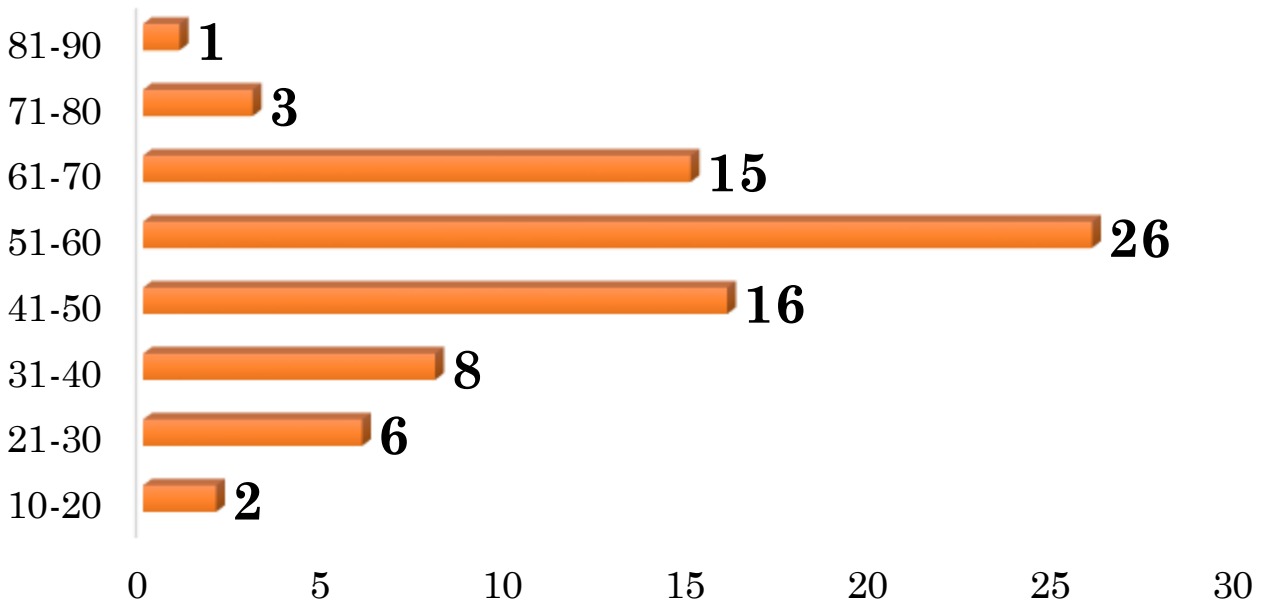
# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION

<b>Total No of Patients</b>	<b>77</b>
Male	38
Female	39

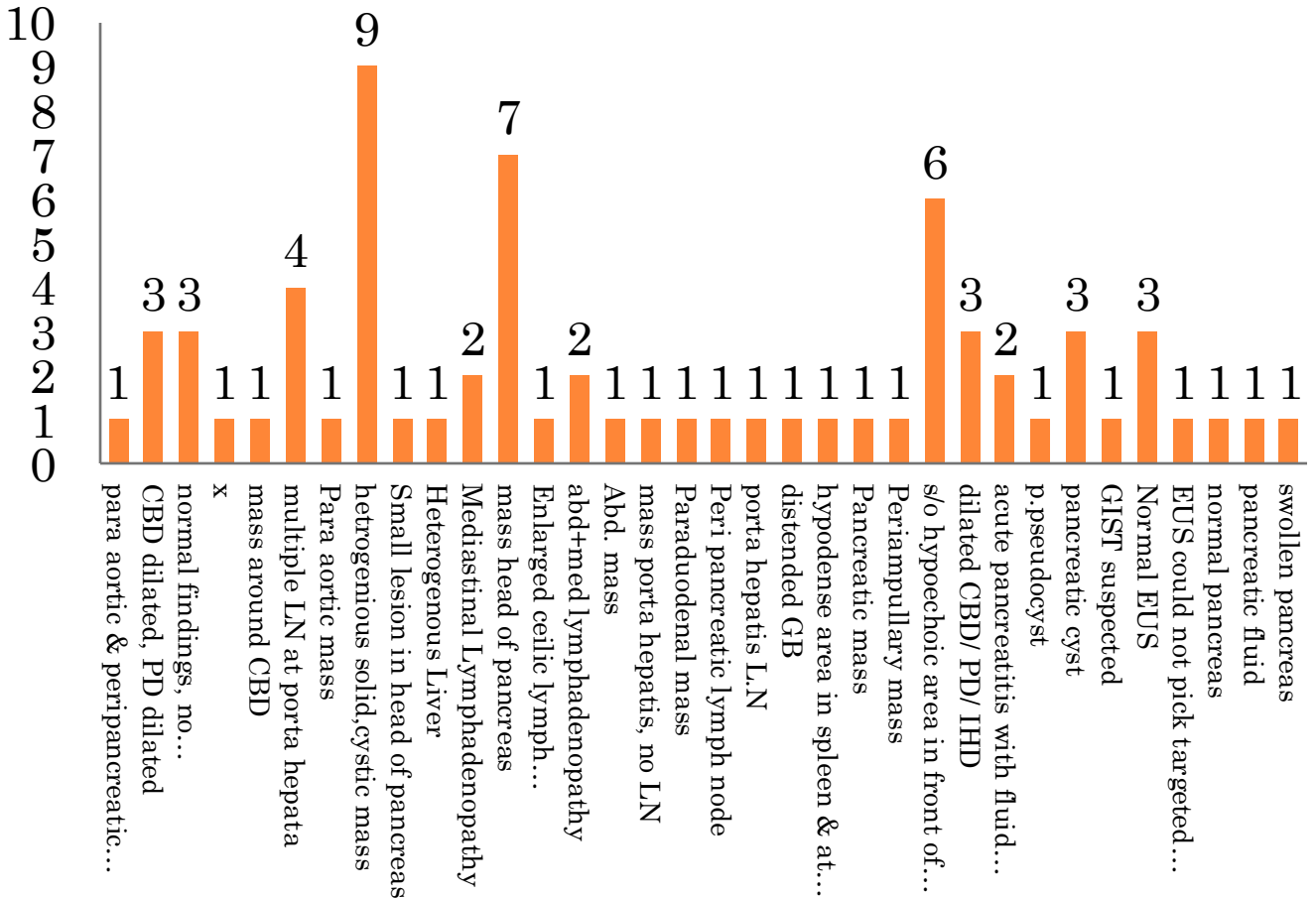
## Gender Distribution



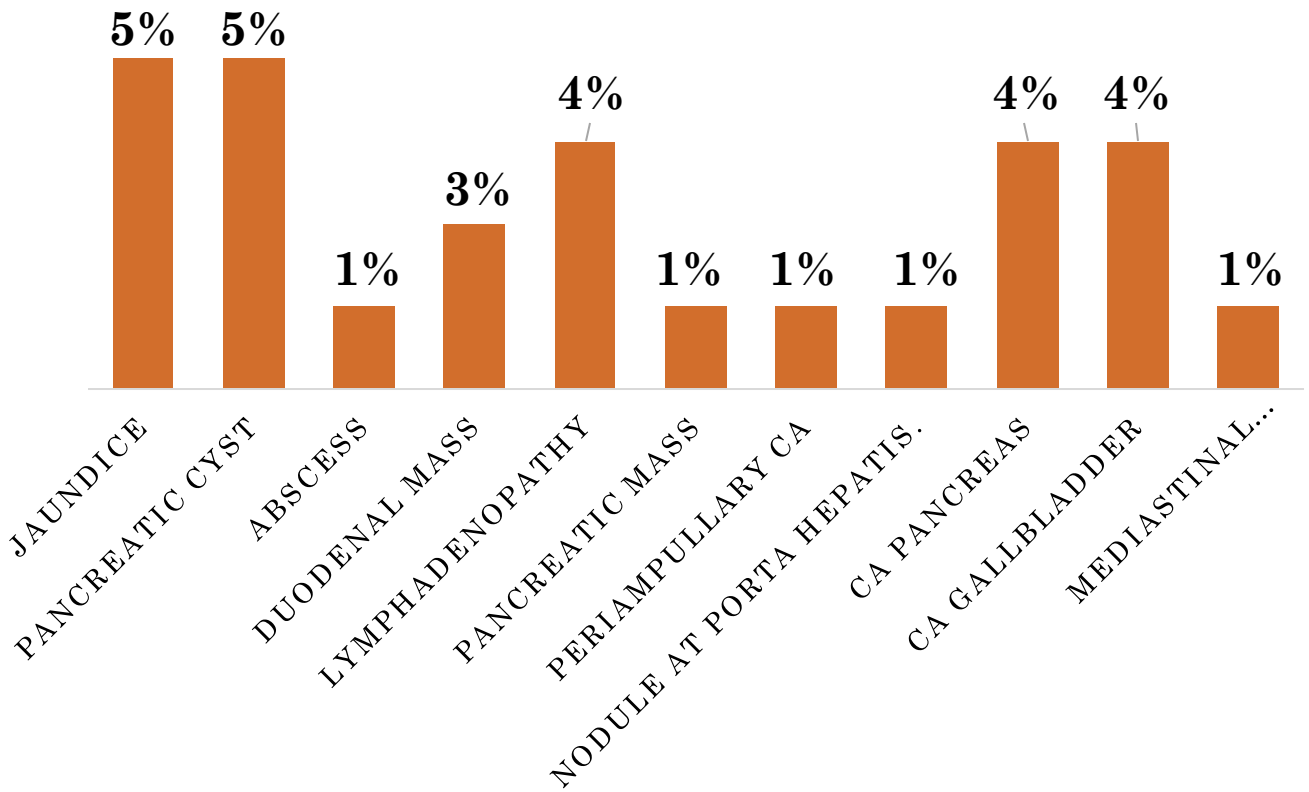
# Age Distribution:



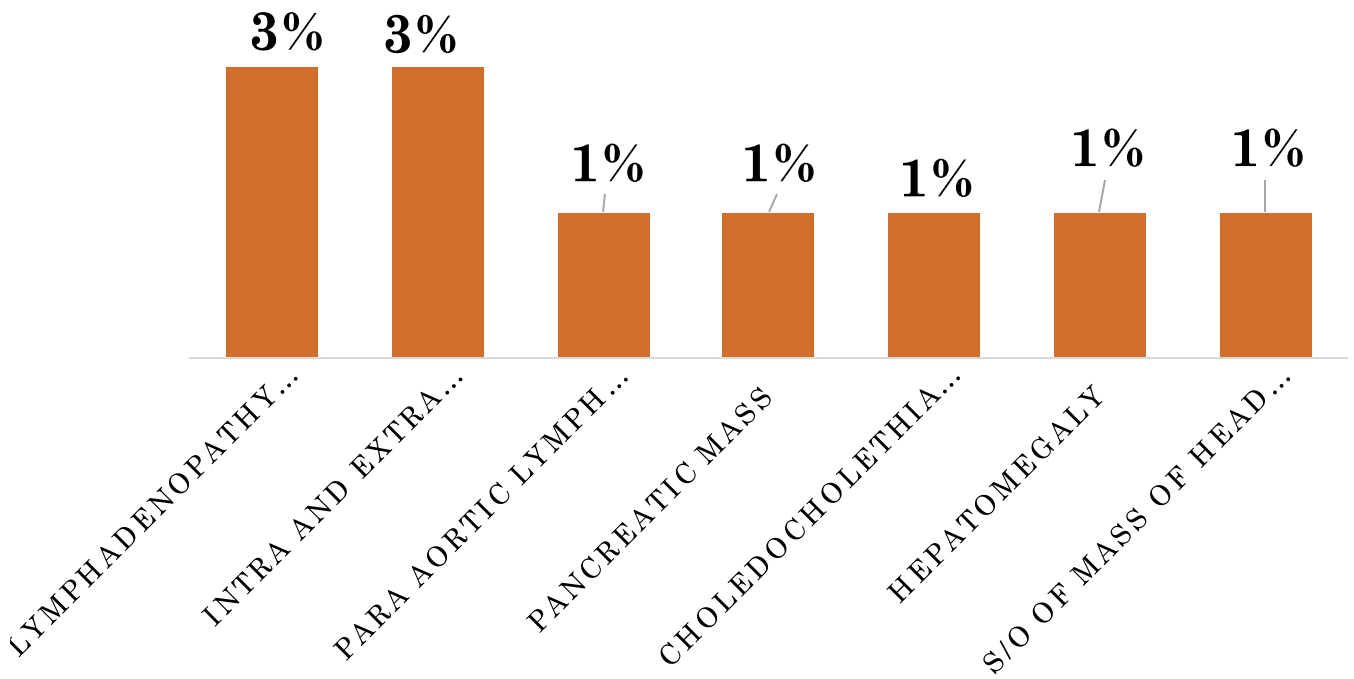
# PROCEDURAL FINDINGS



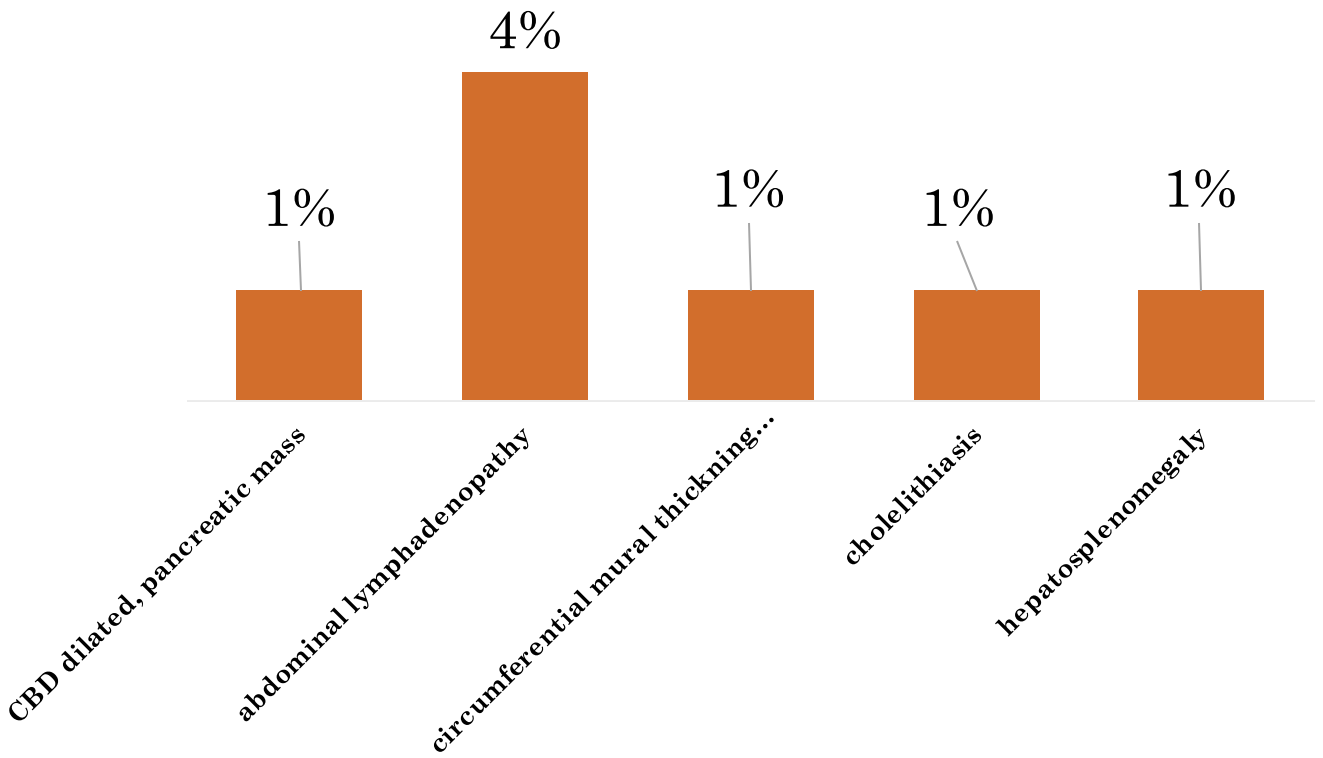
# INDICATION



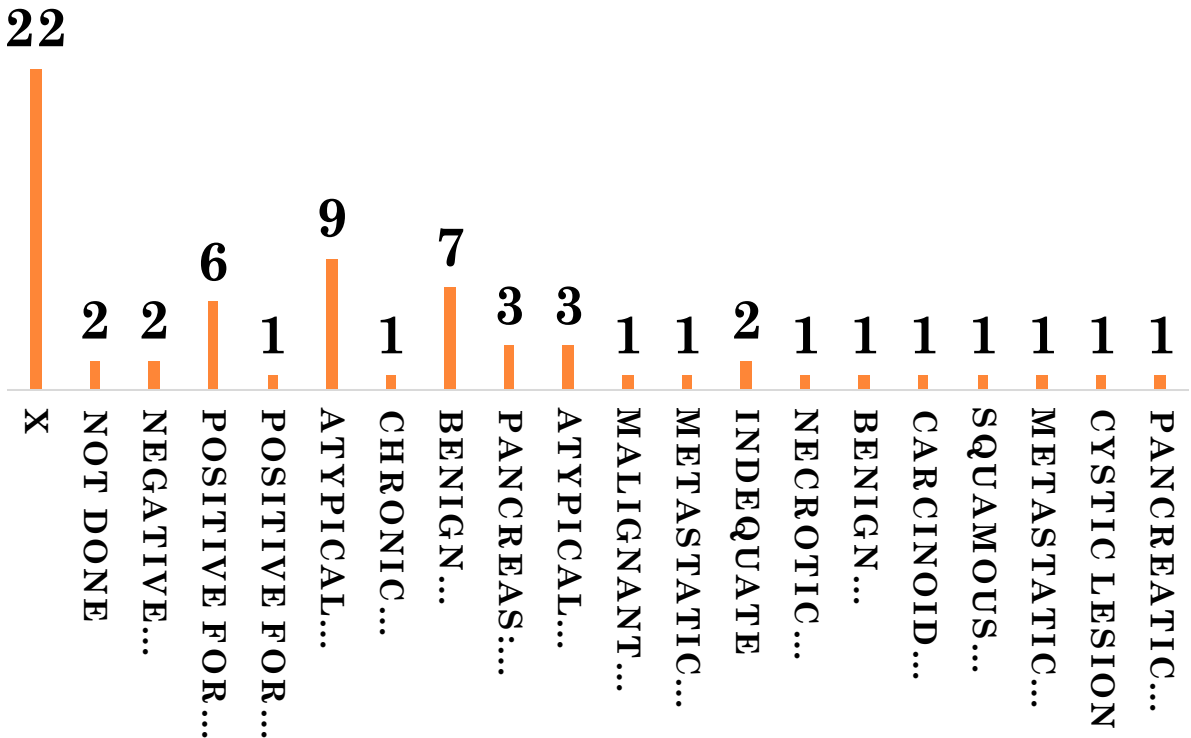
# USG FINDINGS



# CT SCAN FINDINGS

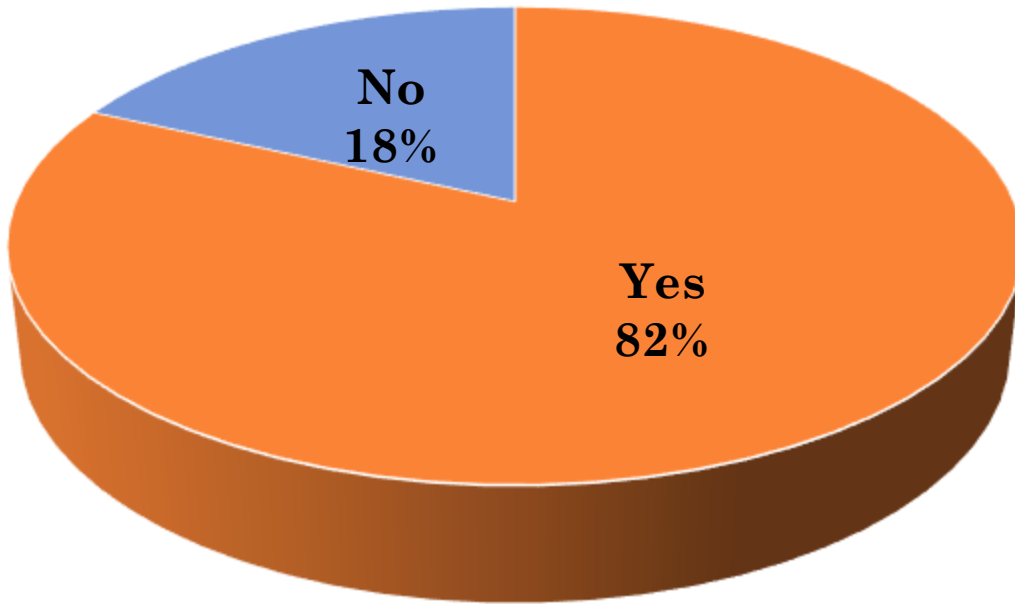


# HISTOPATHOLOGY FINDINGS



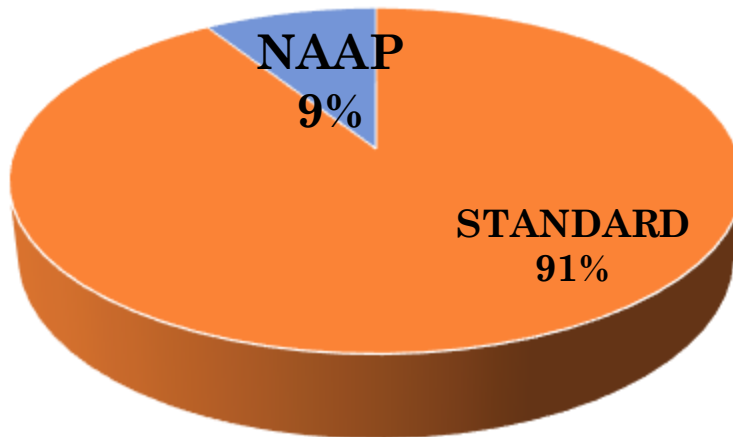
# BIOPSY PROCEDURE

- Yes
- No



# TYPE OF SEDATION

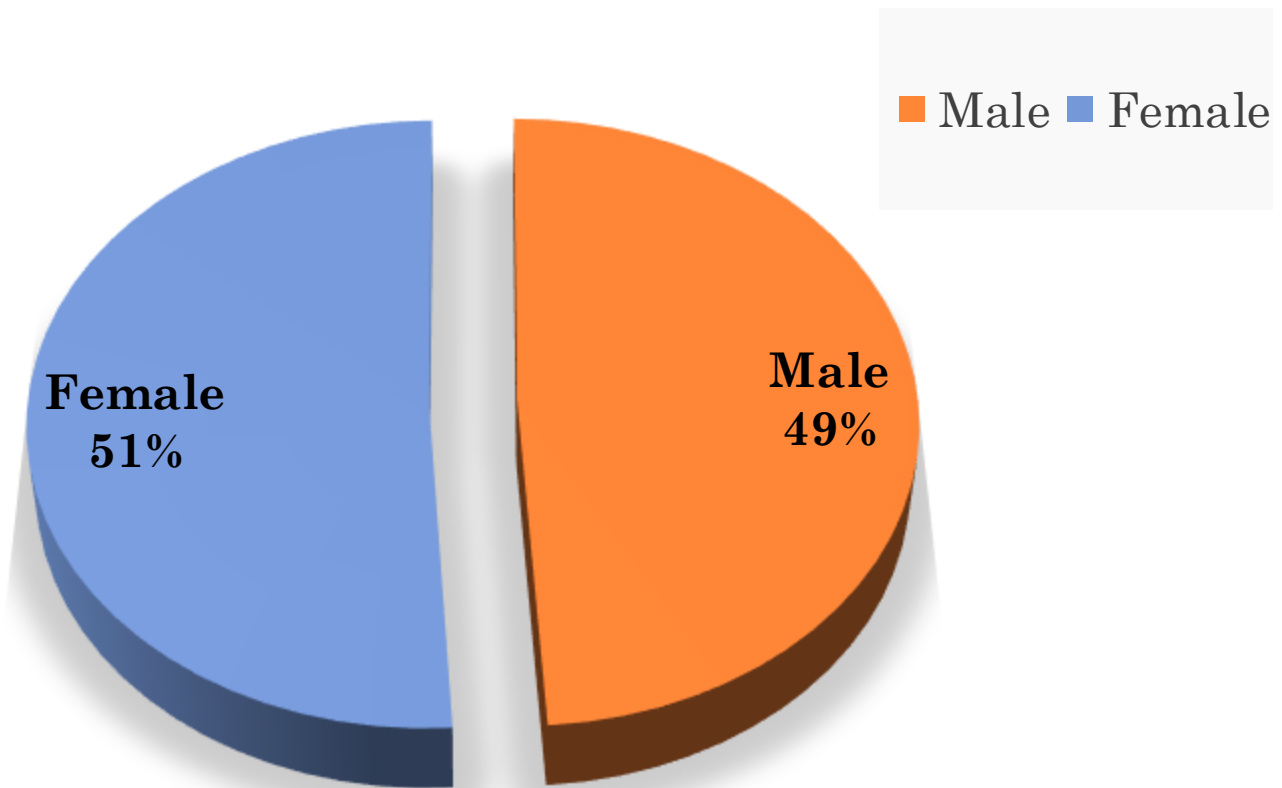
- STANDARD
- NAAP



**2021**

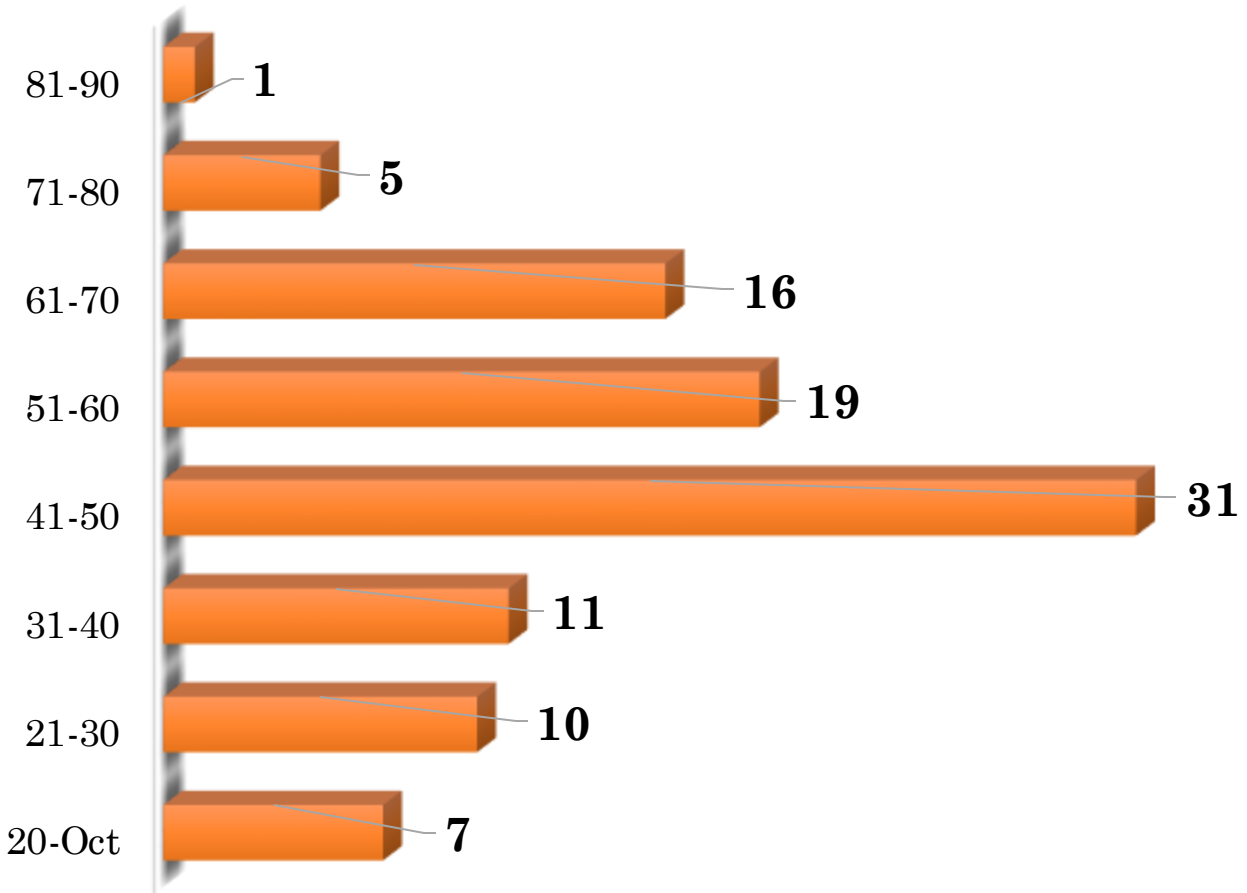
# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION

<b>Total No of Patients</b>	<b>100</b>
Male	49
Female	51

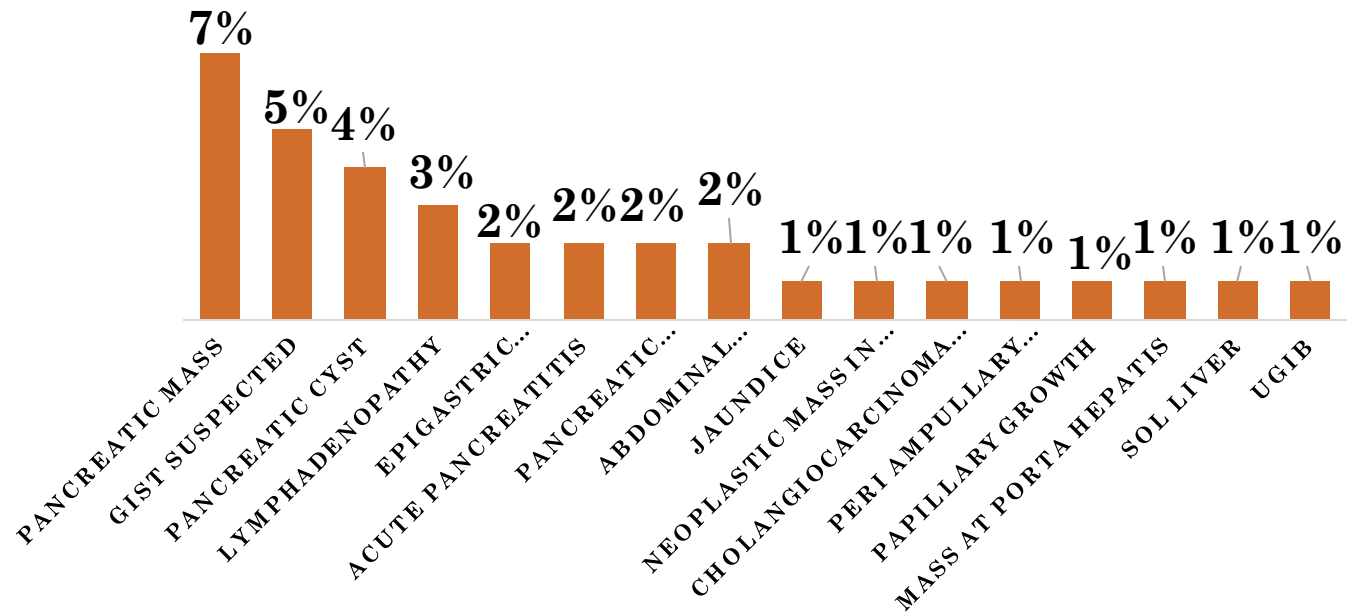




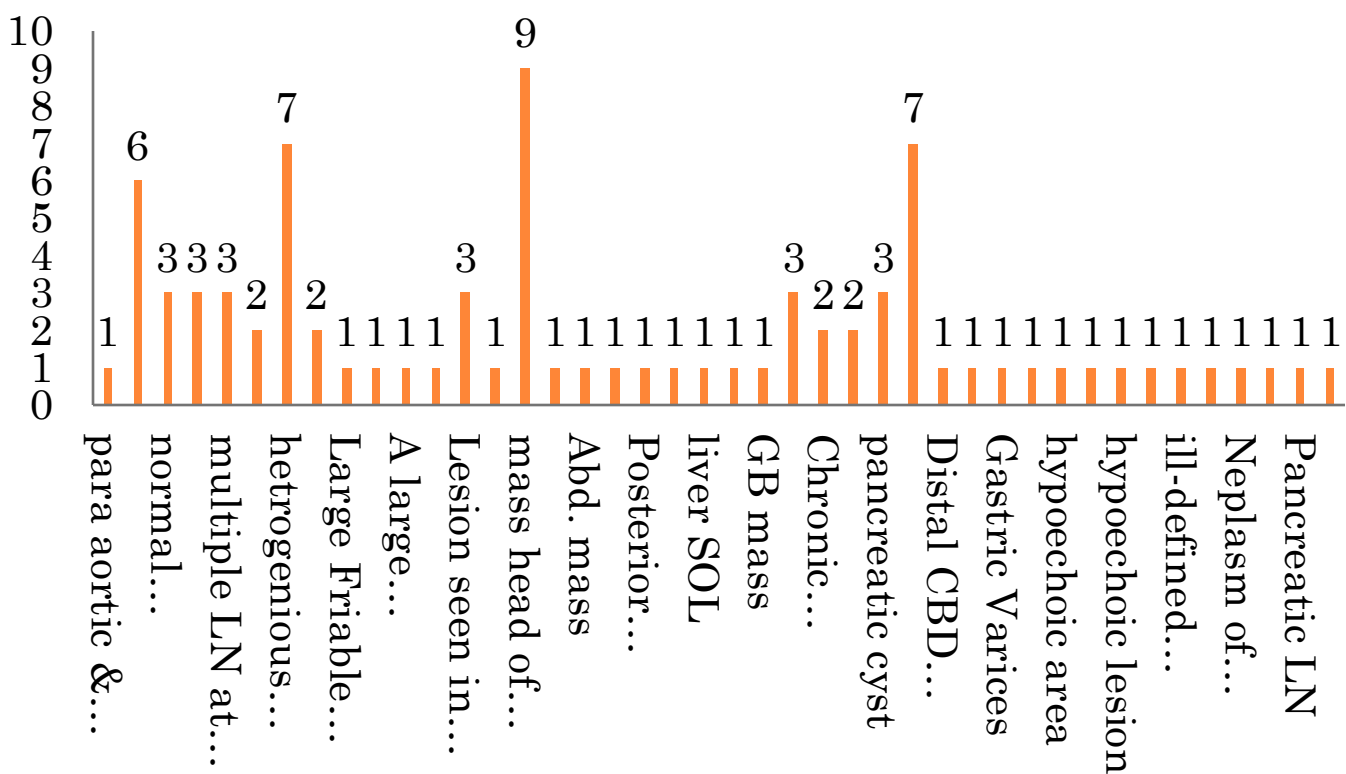
# Age Distribution:



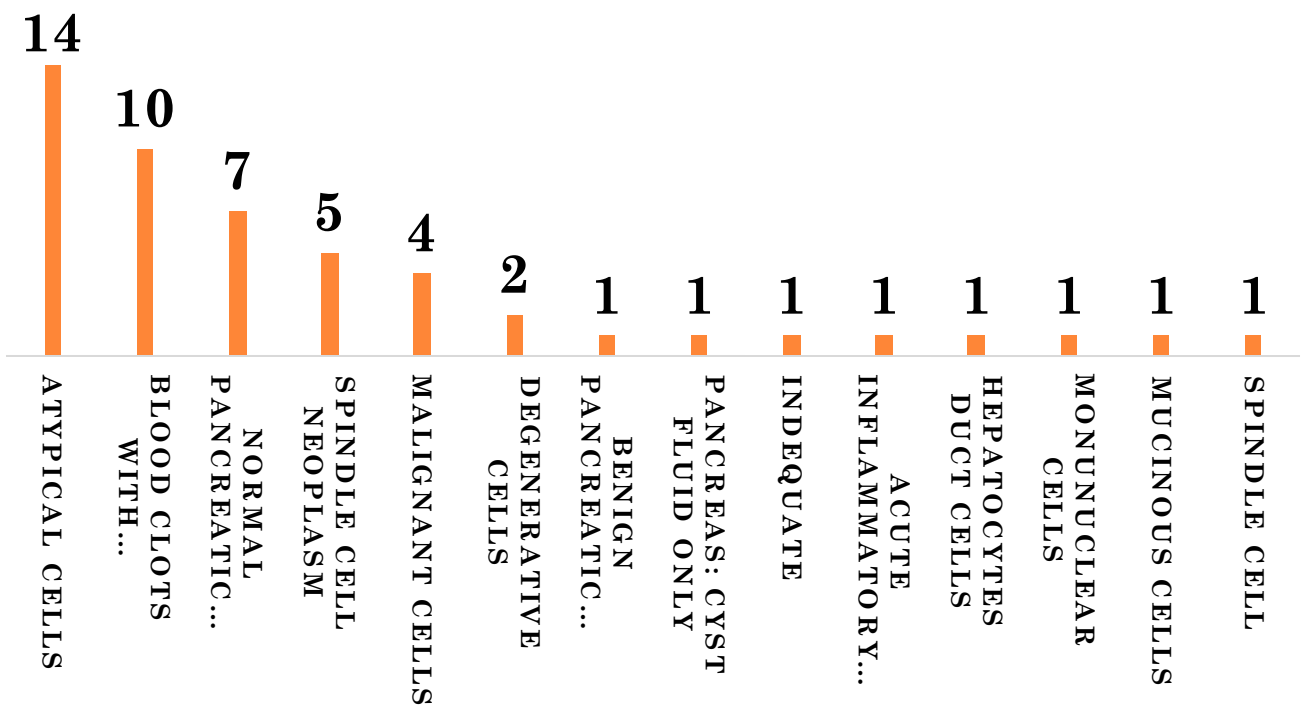
# INDICATION



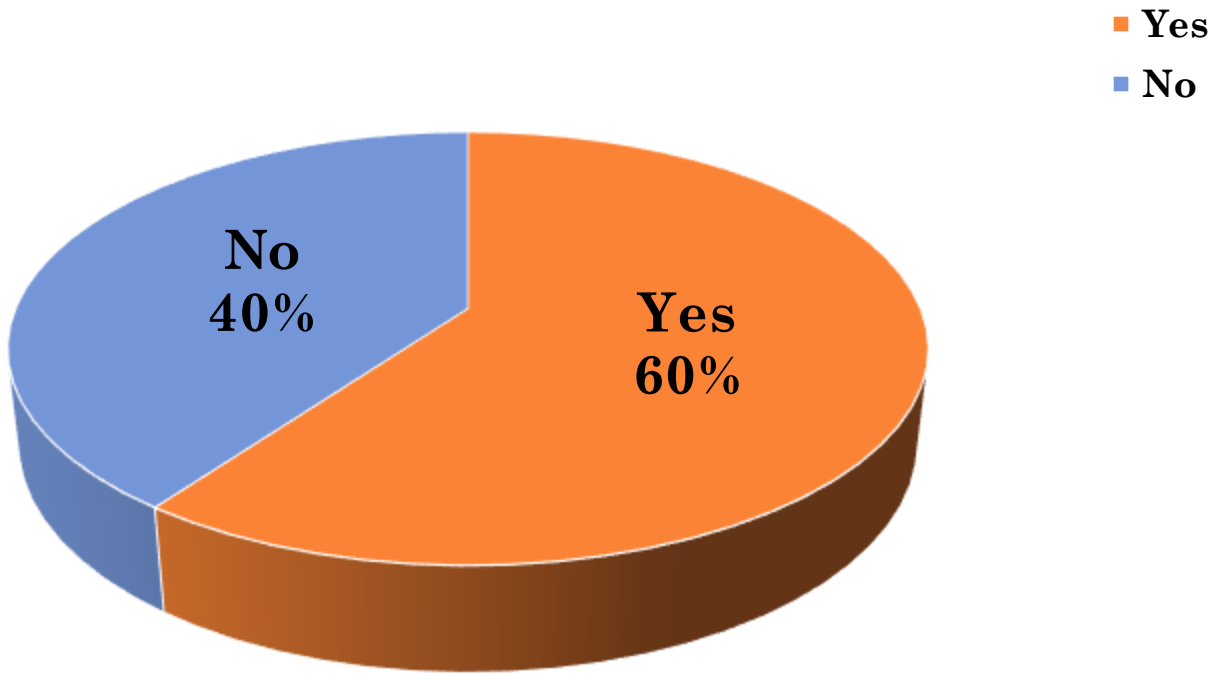
# PROCEDURAL FINDINGS



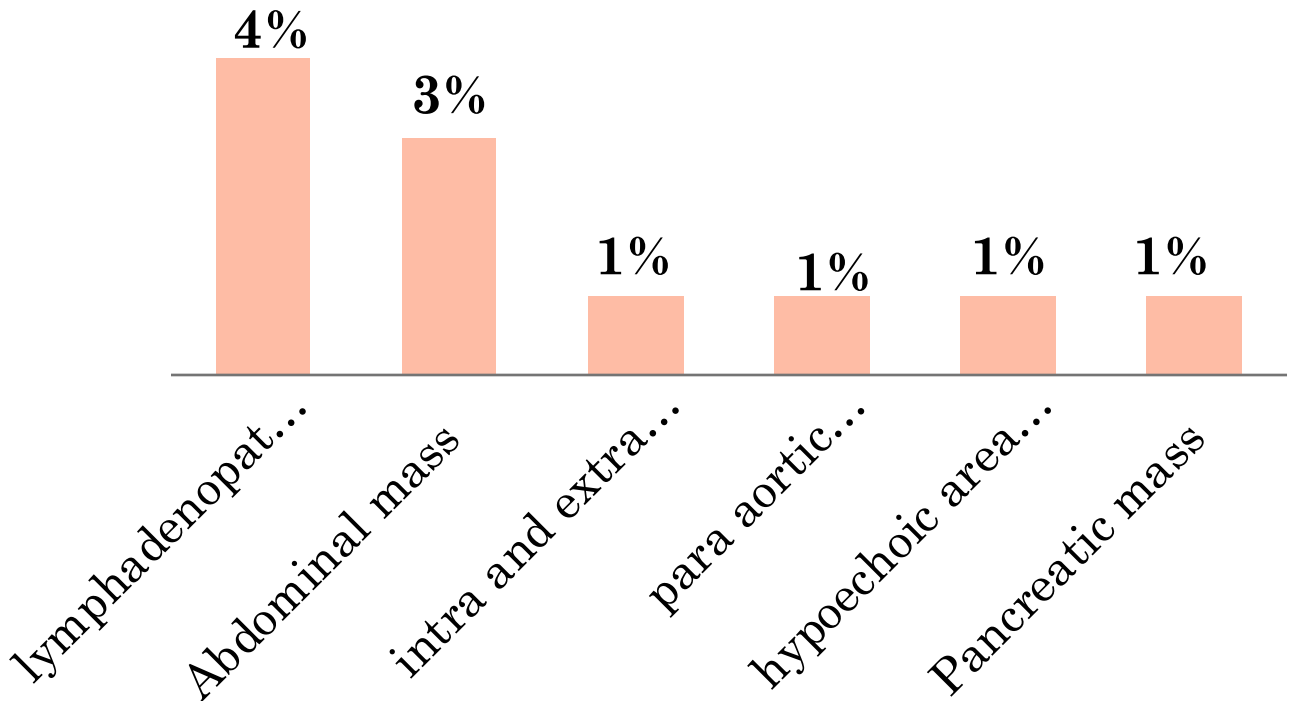
# HISTOPATHOLOGY FINDINGS



# BIOPSY PROCEDURE



# USG FINDINGS

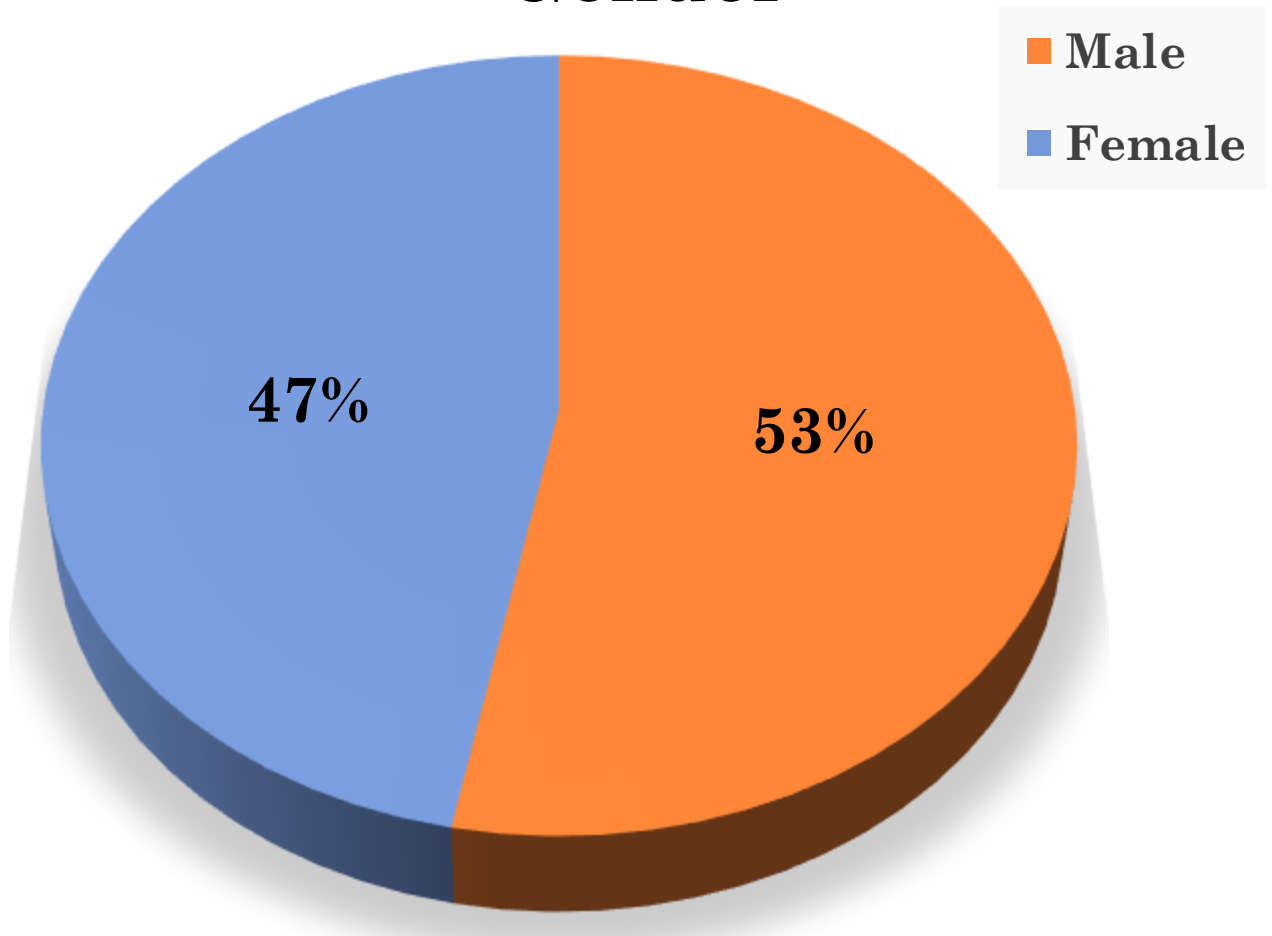


**2022**

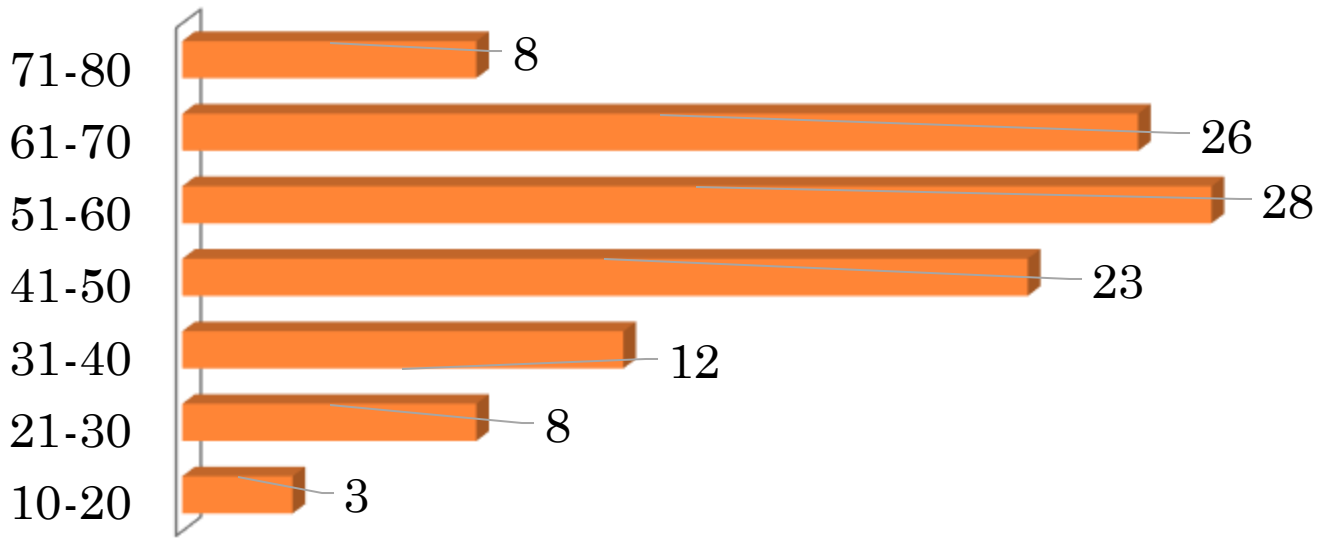
# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION

<b>Total No of Patients</b>	<b>181</b>
Male	96
Female	85

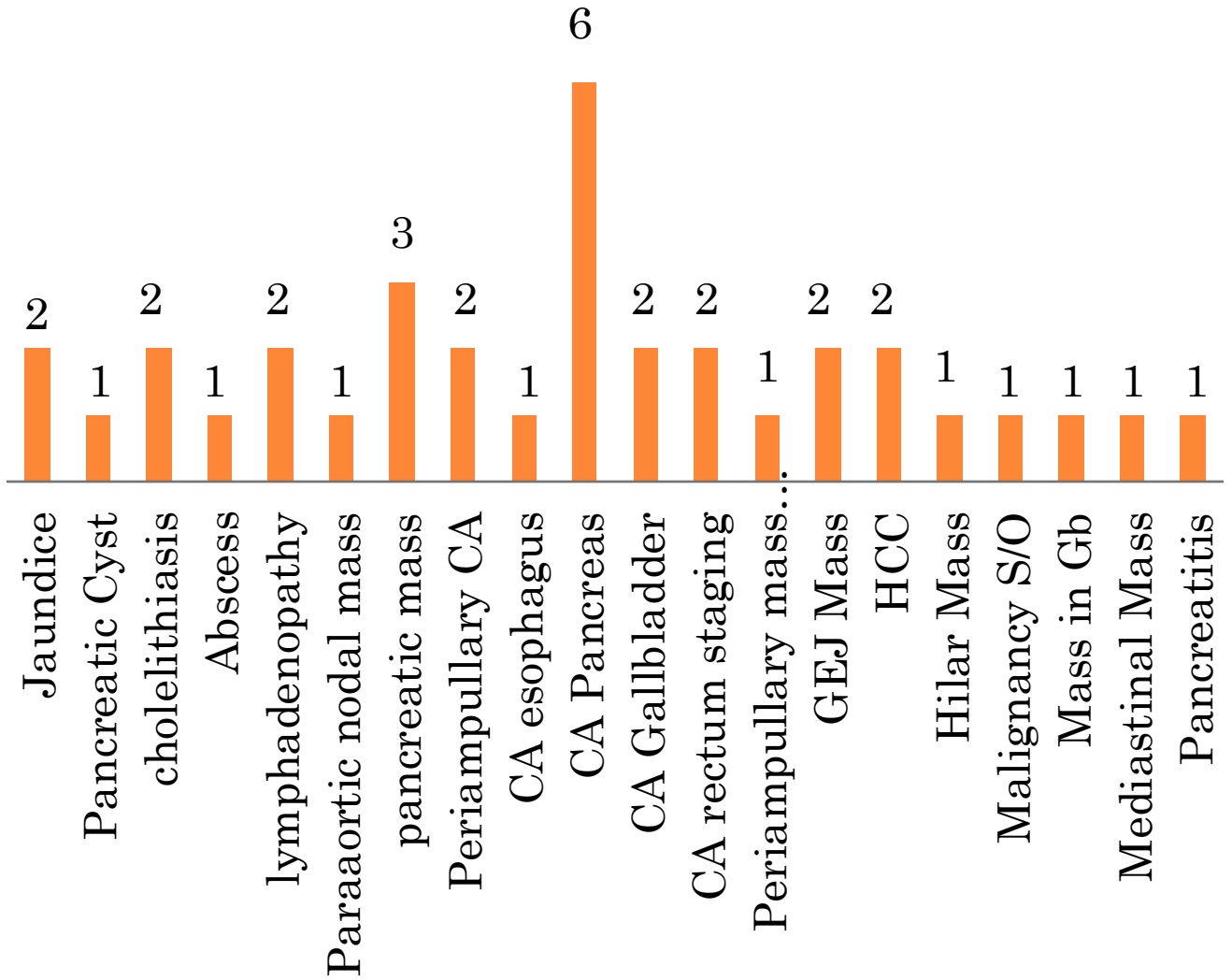
## Gender



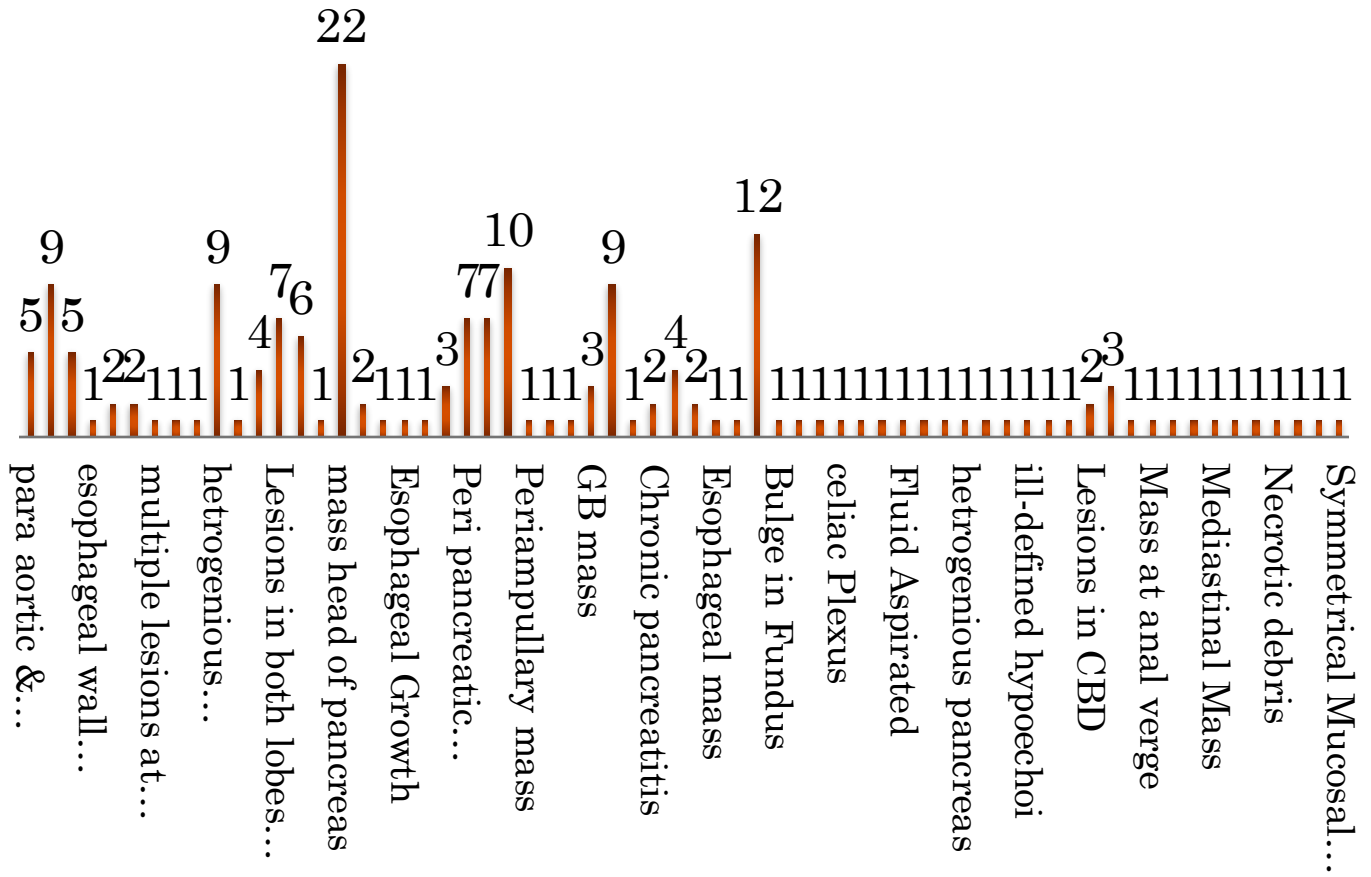
# Age Distribution:



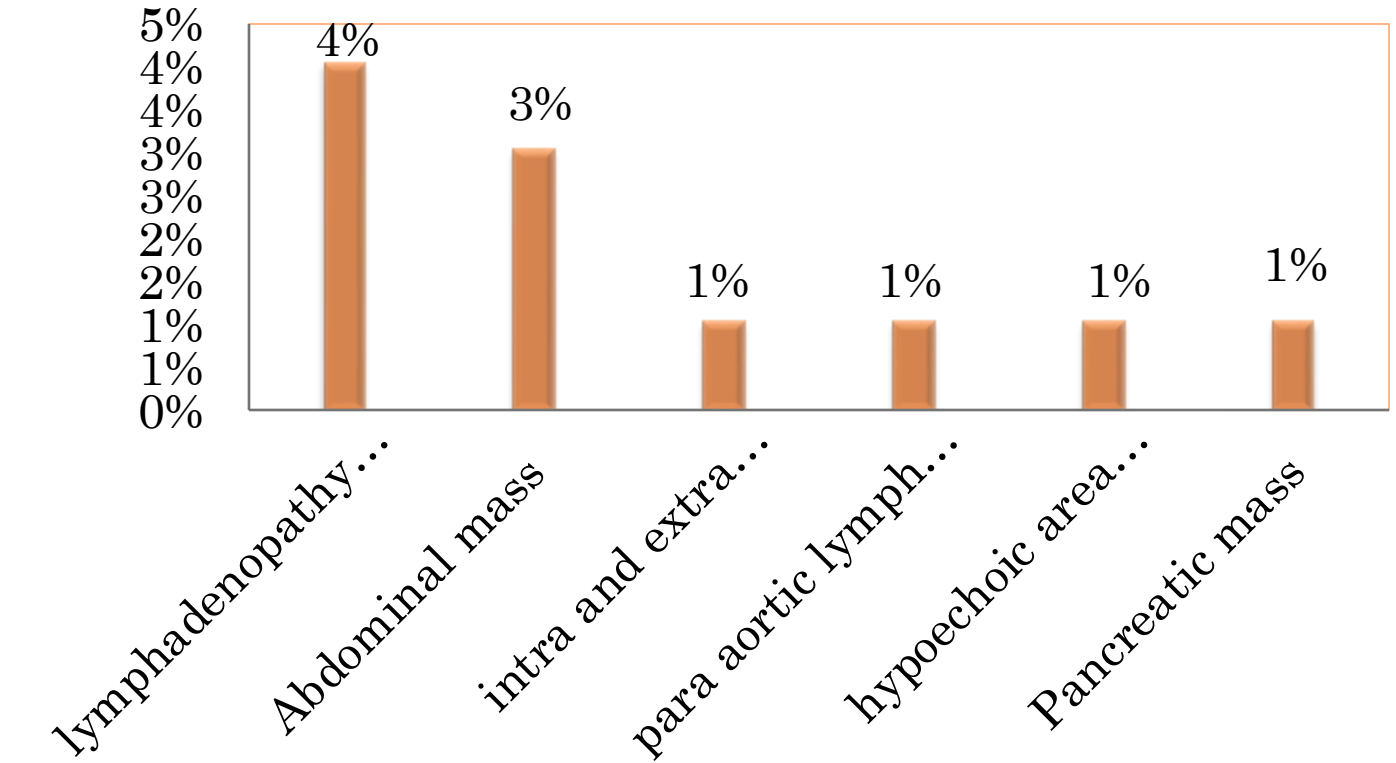
# INDICATION



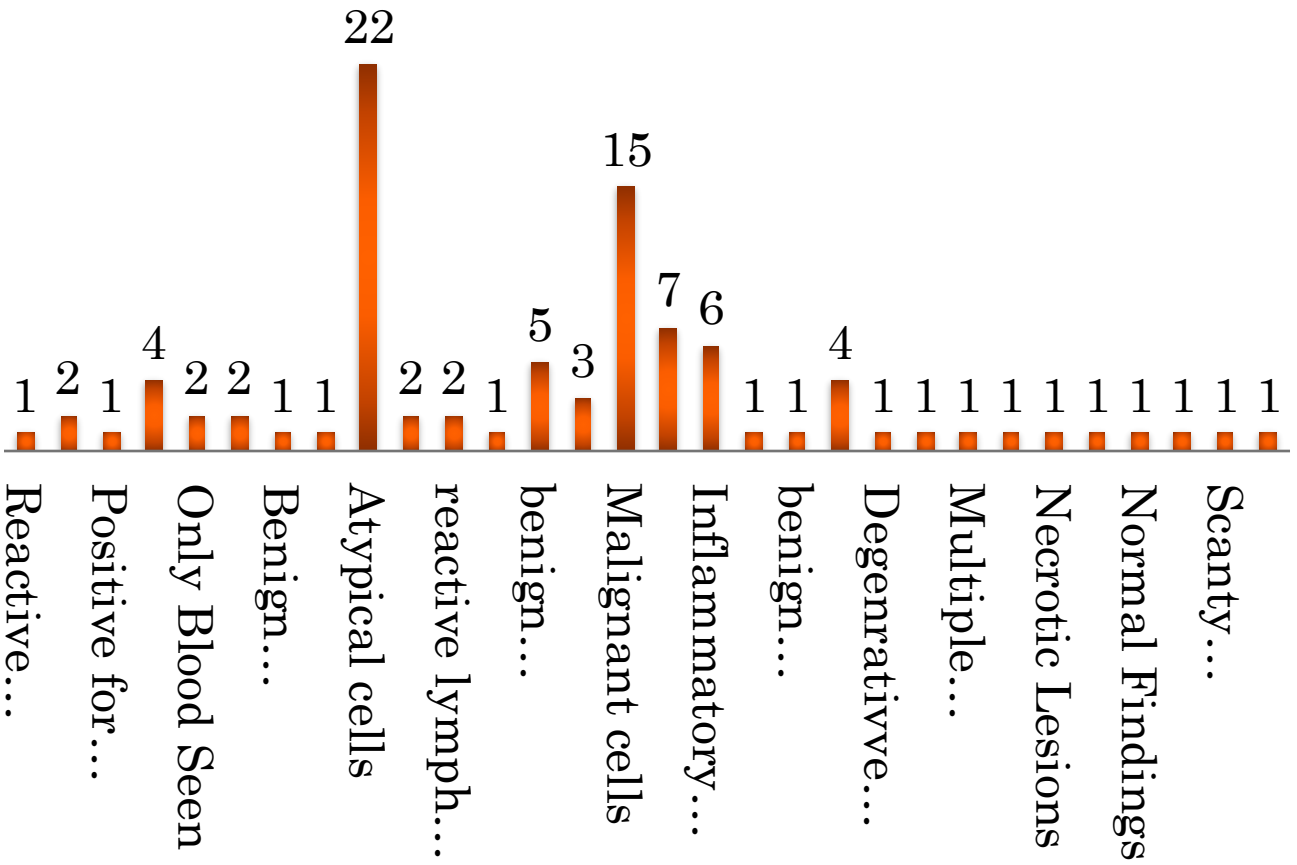
# PROCEDURAL FINDINGS



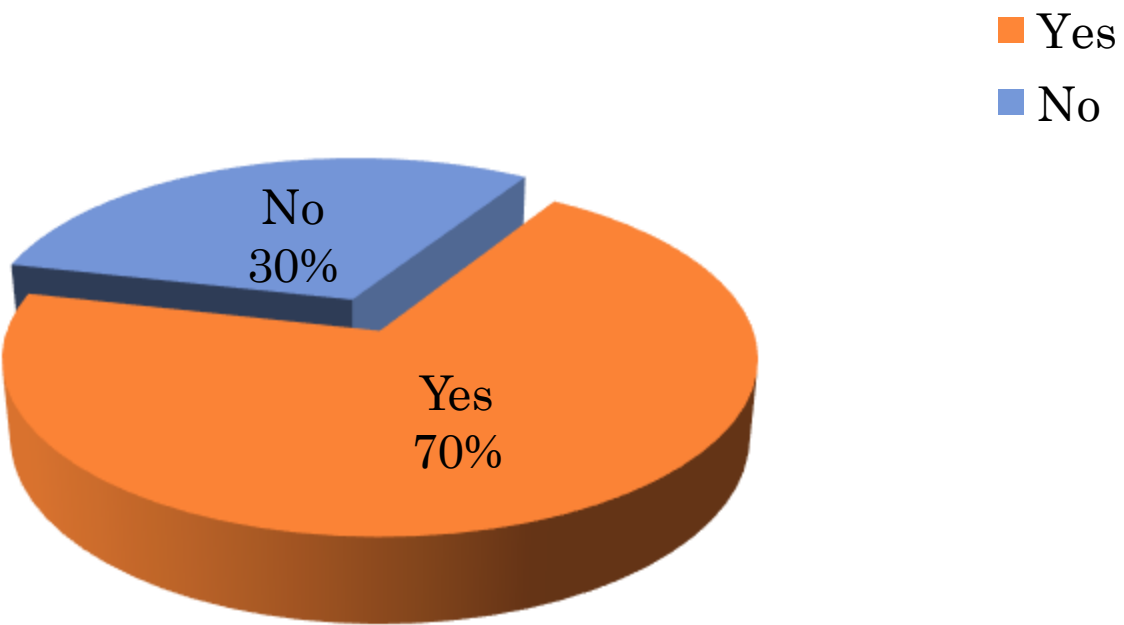
# USG FINDINGS



# HISTOPATHOLOGY FINDINGS



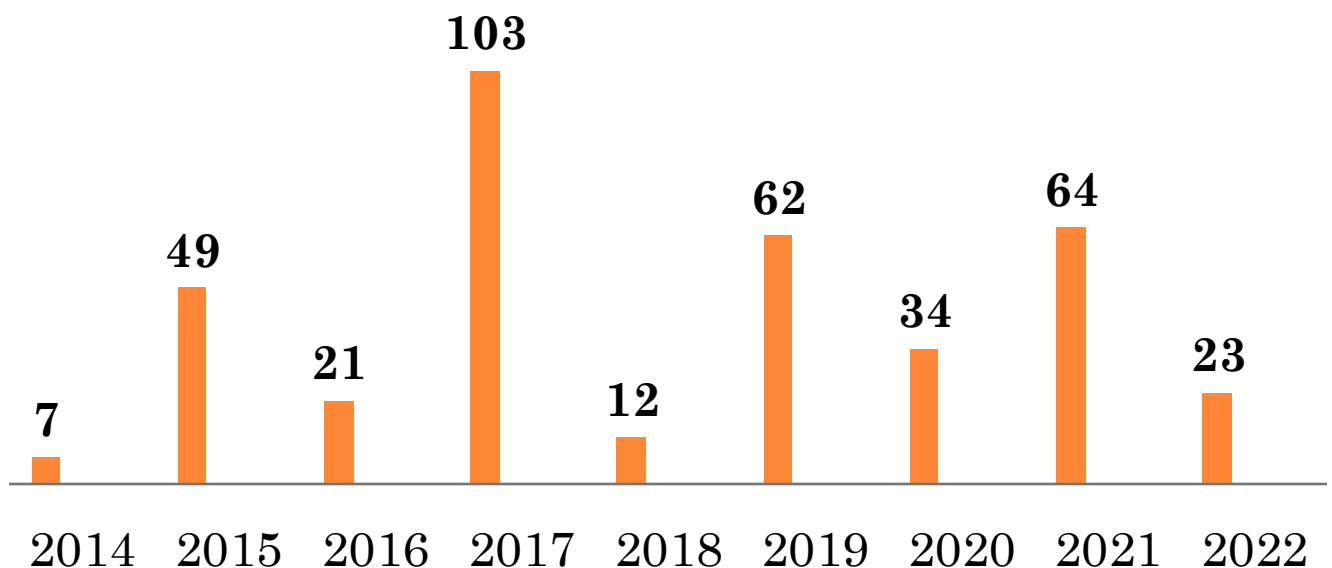
# BIOPSY Procedure





# Manometry Audit

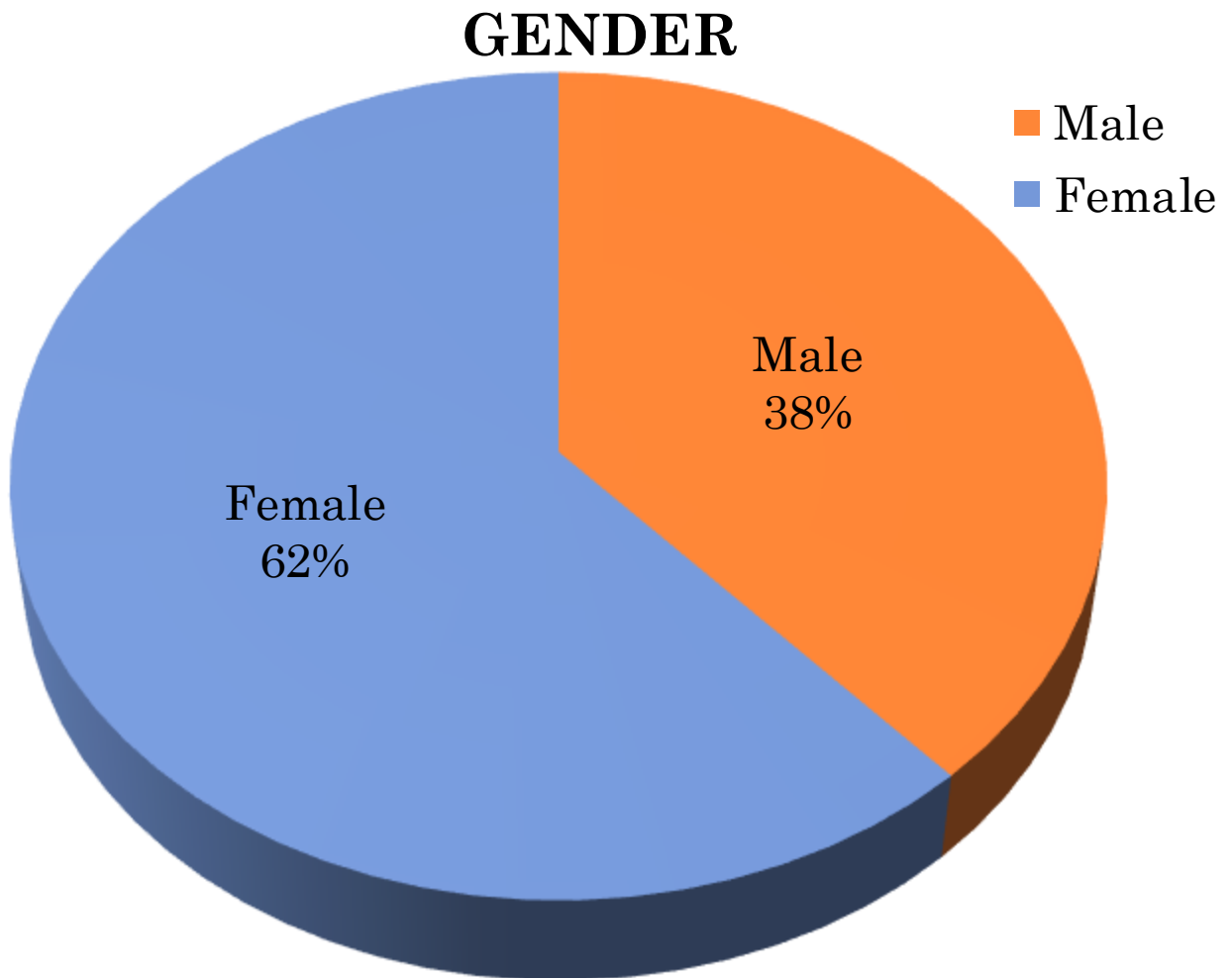
Incidence of esophageal motility disorders in patients with dysphagia and chest pain ranges from 25% to 63%. The gold standard diagnostic tool is high resolution impedance manometry. It is a diagnostic modality with limited availability in Pakistan and center for liver and GI diseases, holy family hospital Rawalpindi is the first public sector hospital which has an experience of more than 9 years in conducting this procedure. During the COVID year 34 patients were entertained following all precautionary measures. The number improved to 64 in 2021 as the COVID conditions improved. In the year 2022 our motility lab underwent upgradation with the latest HRM system and software's. In 2022 our center also started motility services for anorectal disorders. Achalasia remained the commonest diagnosis. Most of the achalasia patients under went pneumatic dilation successfully at our center and are being followed up in the dedicated motility disorder clinic on every Wednesday. The center is also providing patient support program for Achalasia cases through social media platform <https://www.facebook.com/Achalasia-Support-Group-Pakistan-108419877757357/>



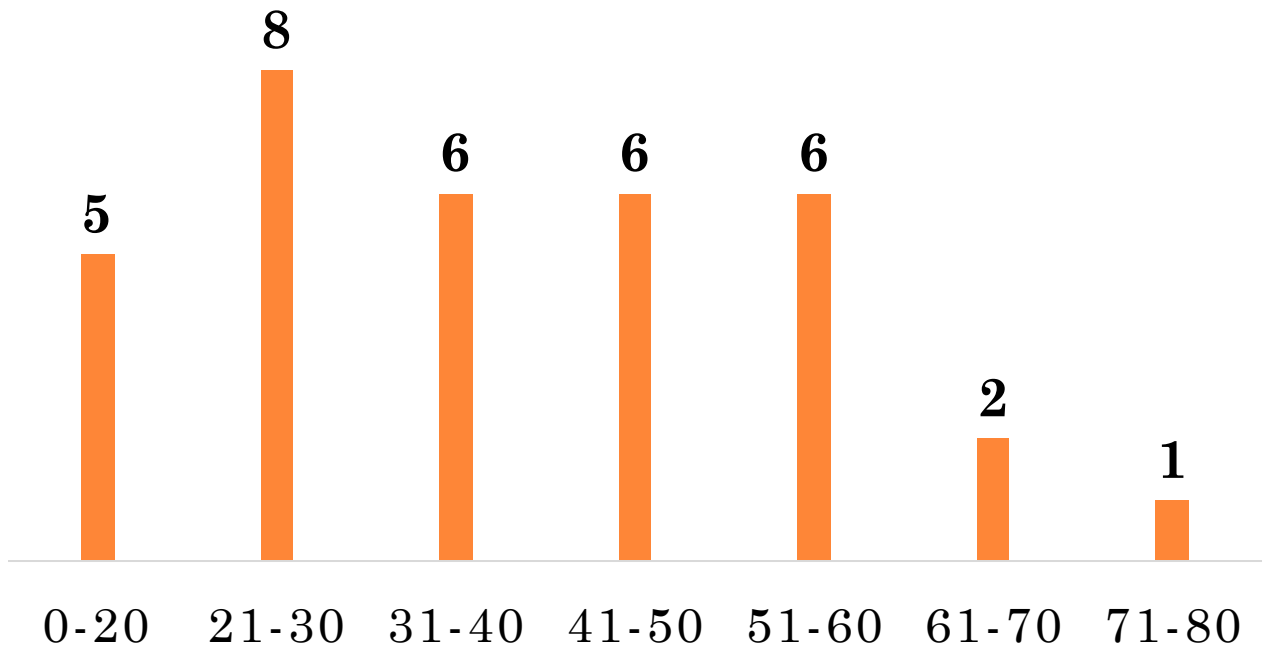
**2020**

# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION

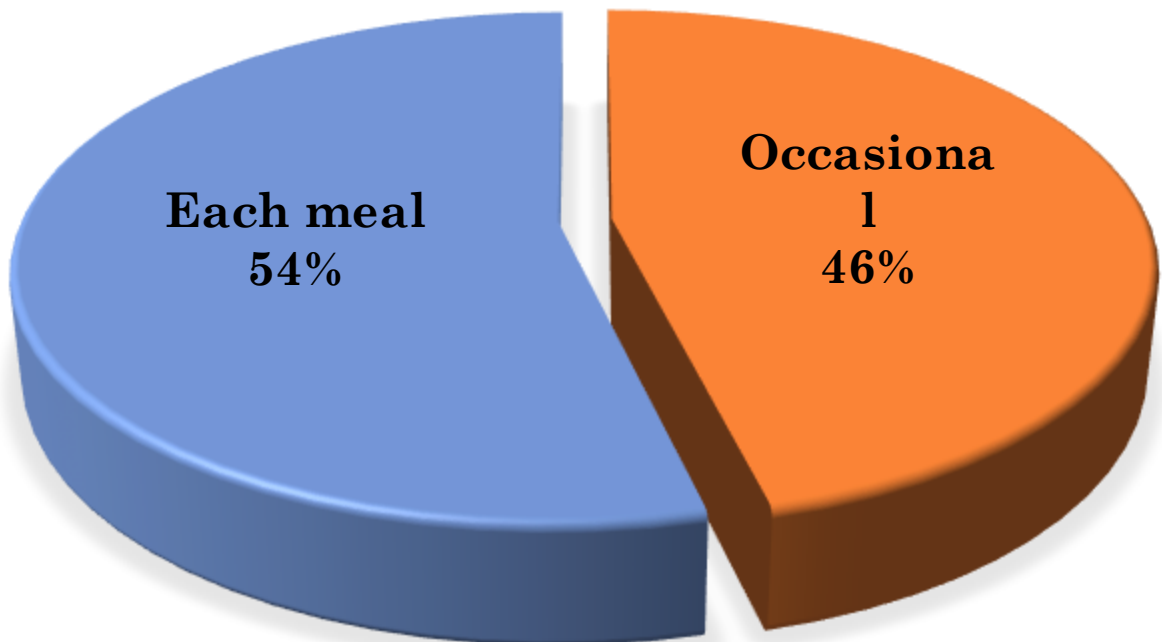
Total No of Patients	34
Male	13
Female	21



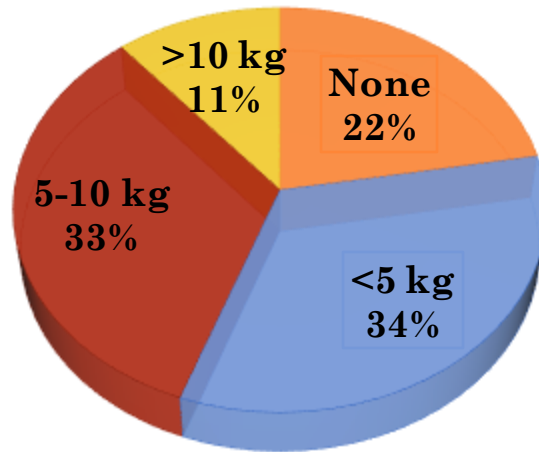
# AGE WISE DISTRIBUTION



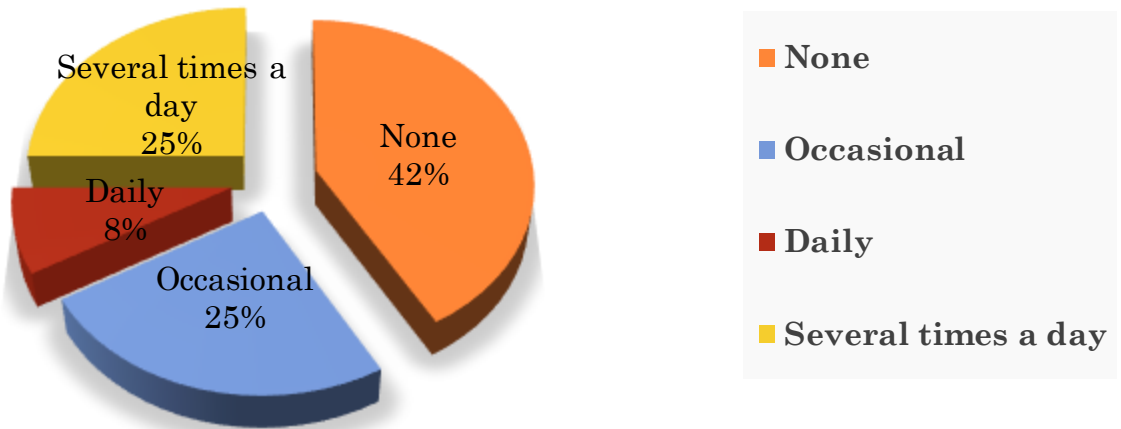
## PRESENTING COMPLAINT (DYSPHAGIA SEVERITY)



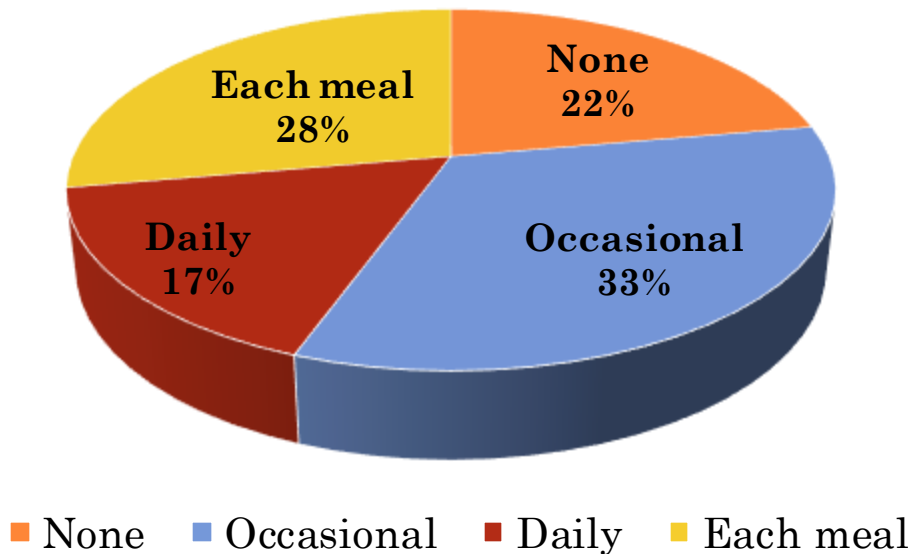
# WEIGHT LOSS



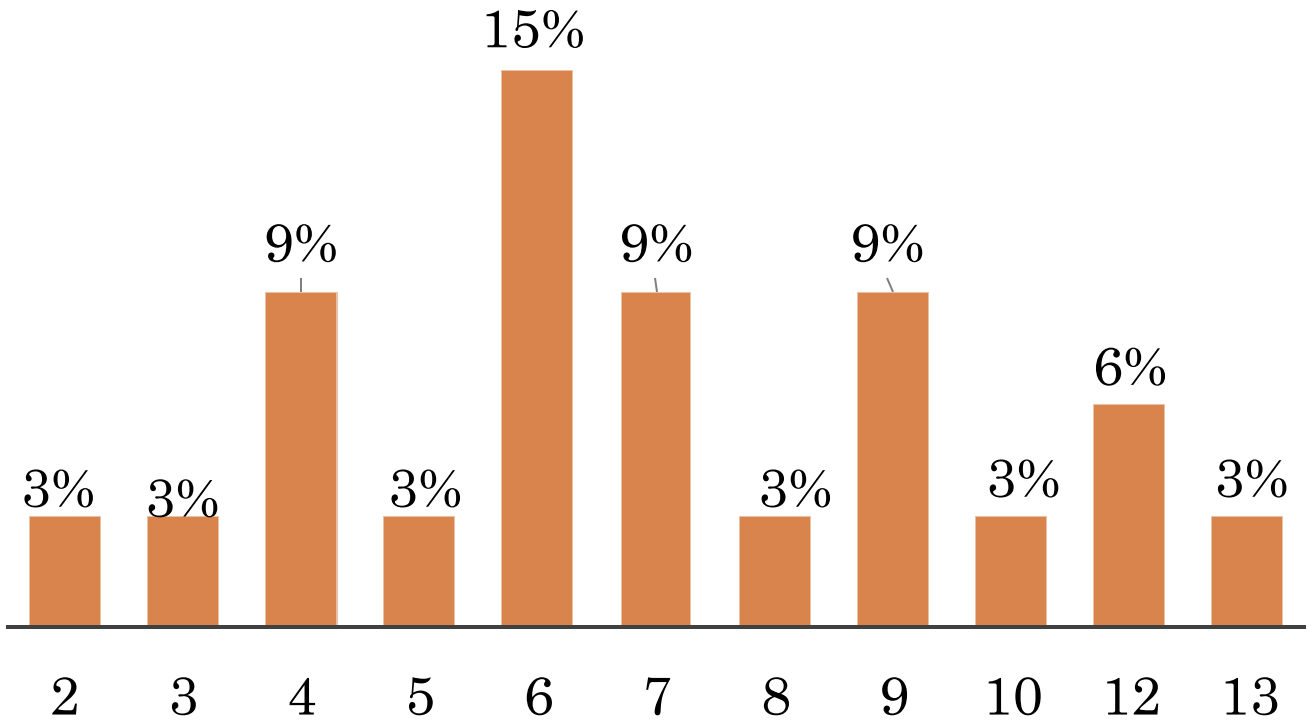
# RETROSTERNAL PAIN



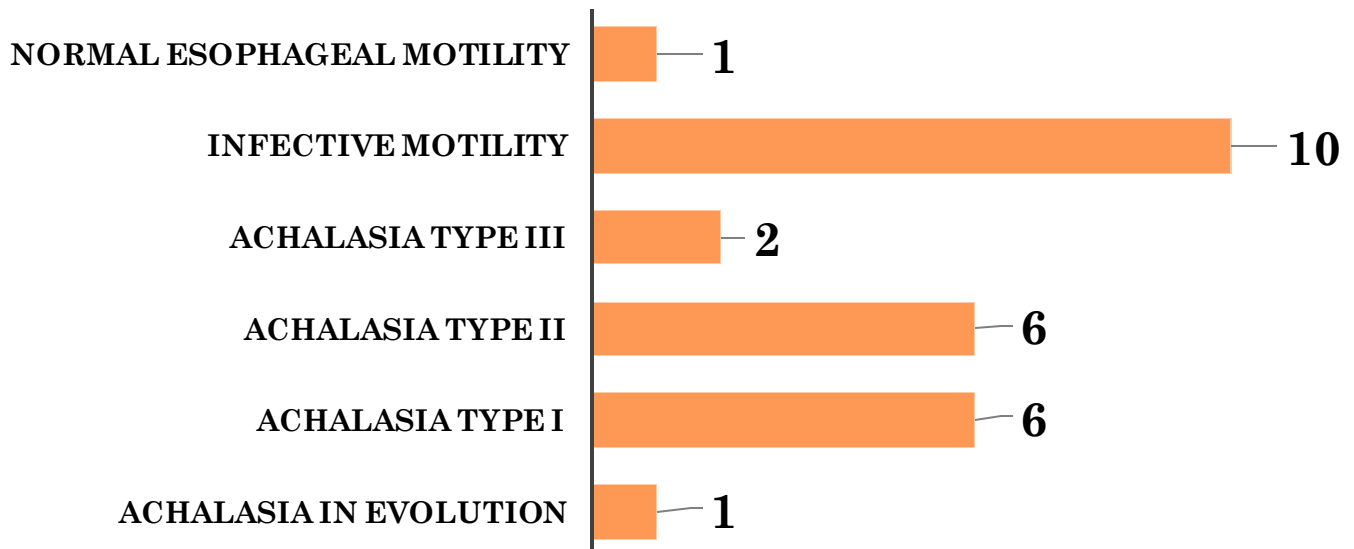
# Regurgitation



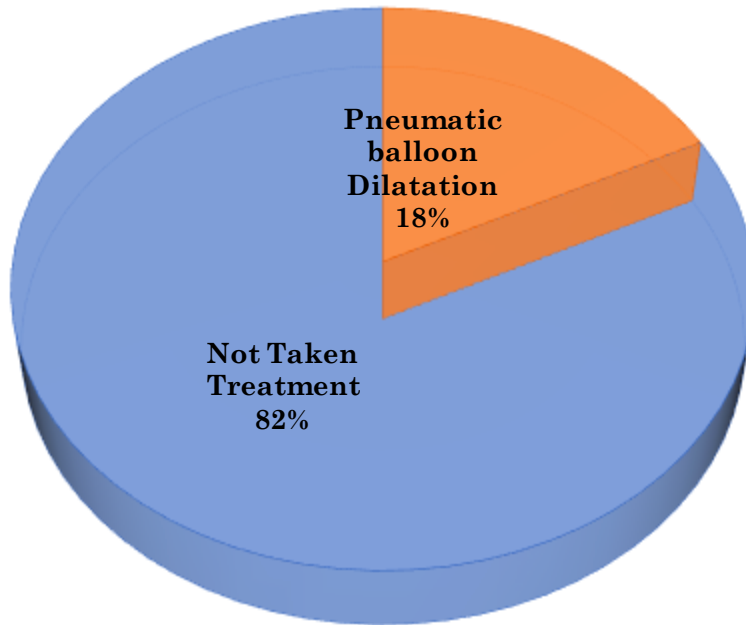
# ECKARDT SCORE



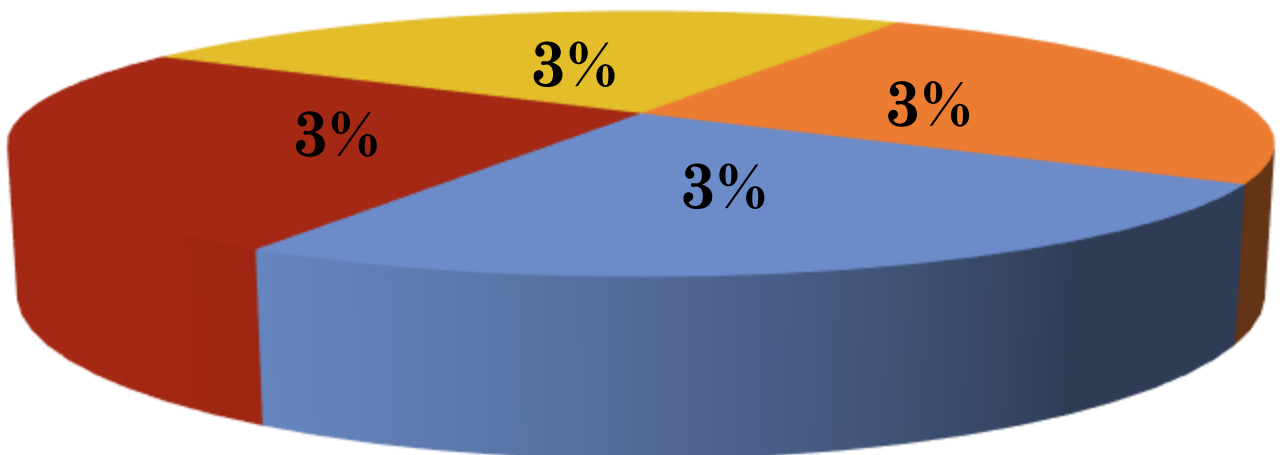
# HRM DIAGNOSIS (CHICAGO CLASSIFICATION)



# ACHALASIA PATIENTS WHO OPTED PNEUMETIC DILATATION IN OUR CENTRE



# PRESSURE USED DURING PROCEDURE BALLOON DILATATION IN ACHALASIA PATIENTS



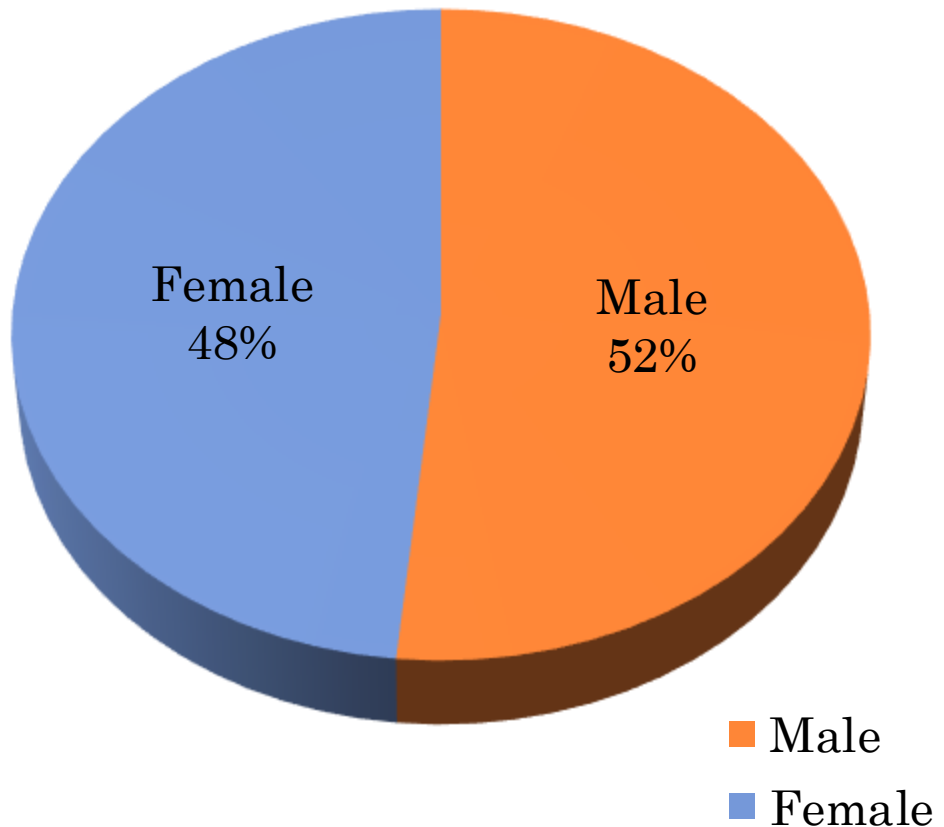
**2021**



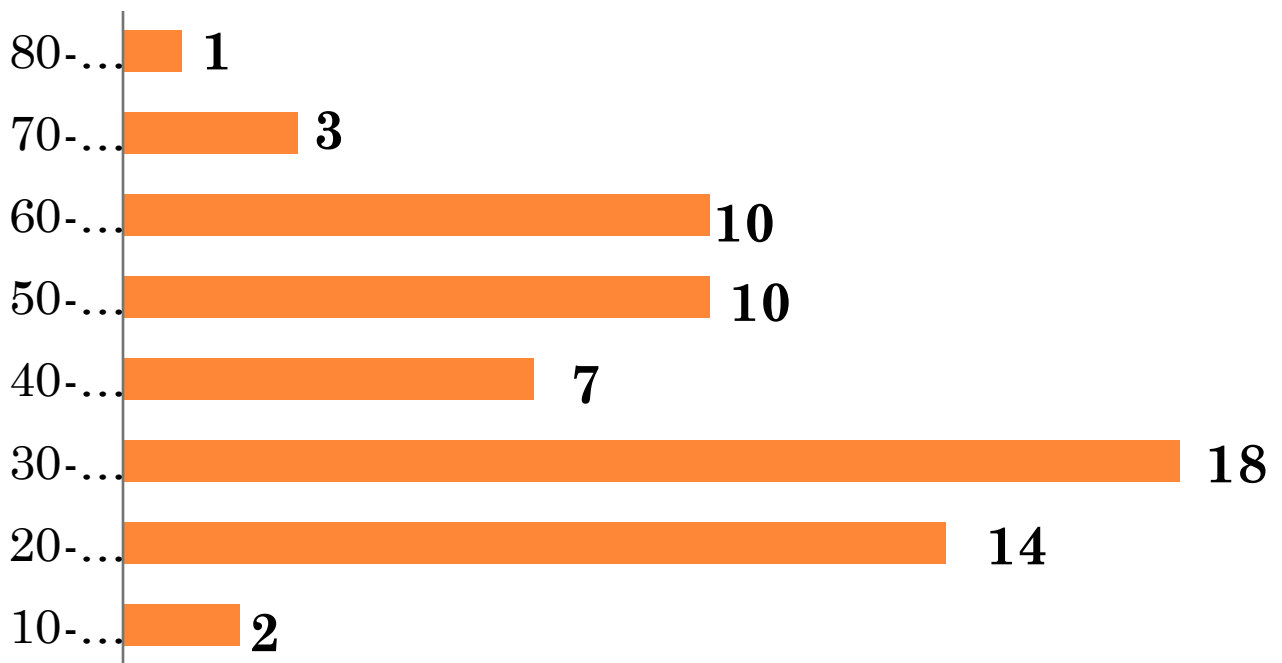
# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION

Total No of Patients	64
Male	33
Female	31

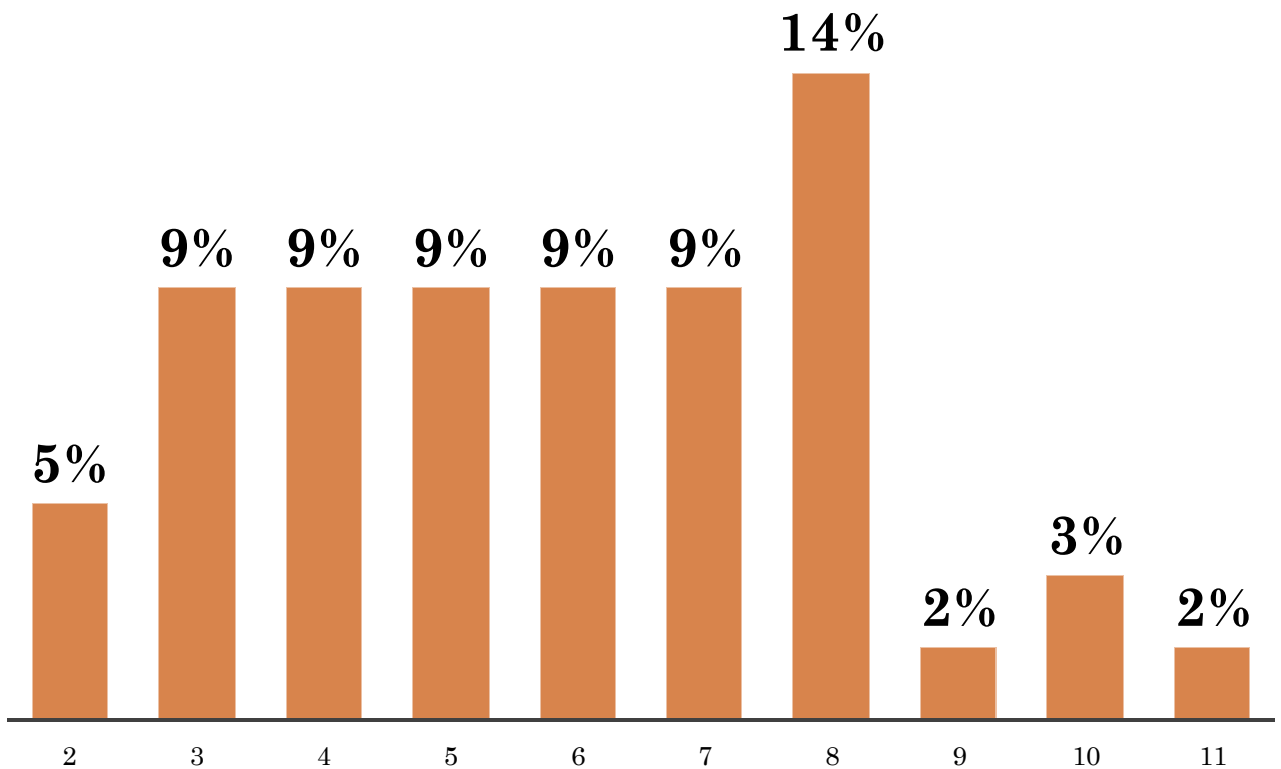
## GENDER



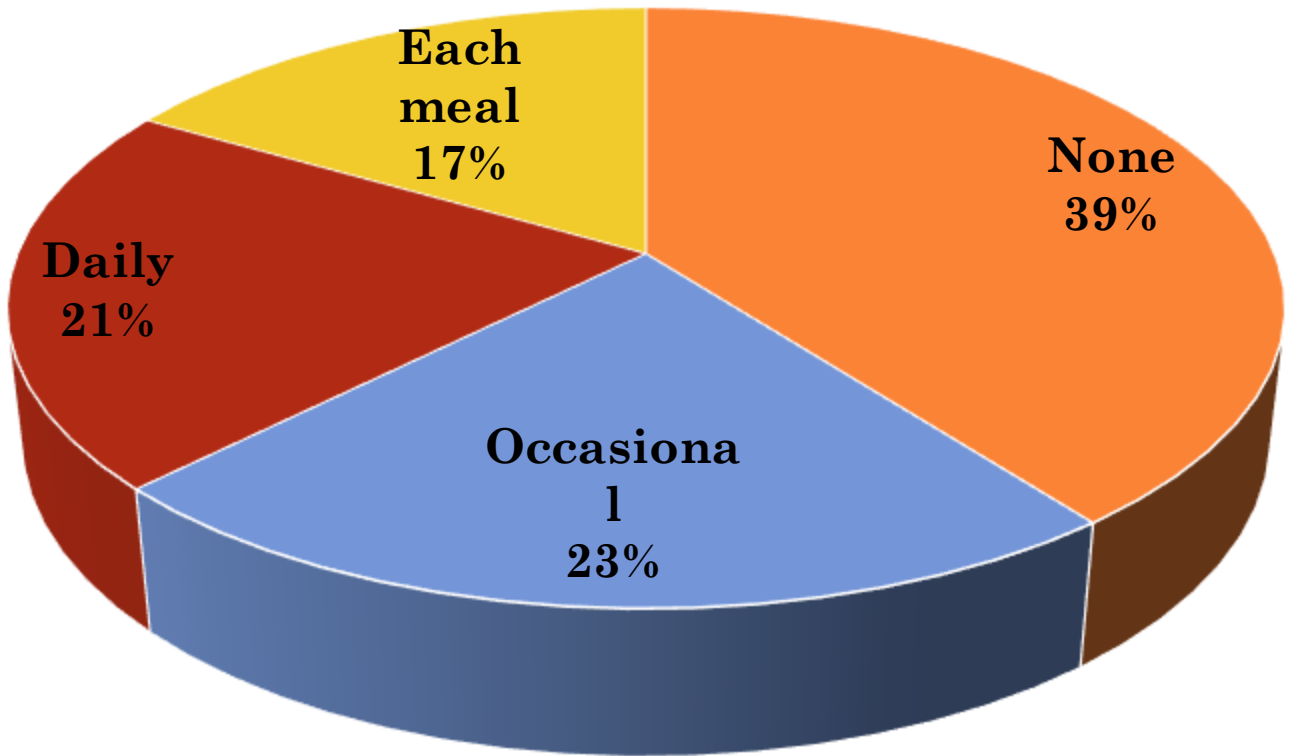
# AGE WISE DISTRIBUTION



# ECKARDT\_SCORE

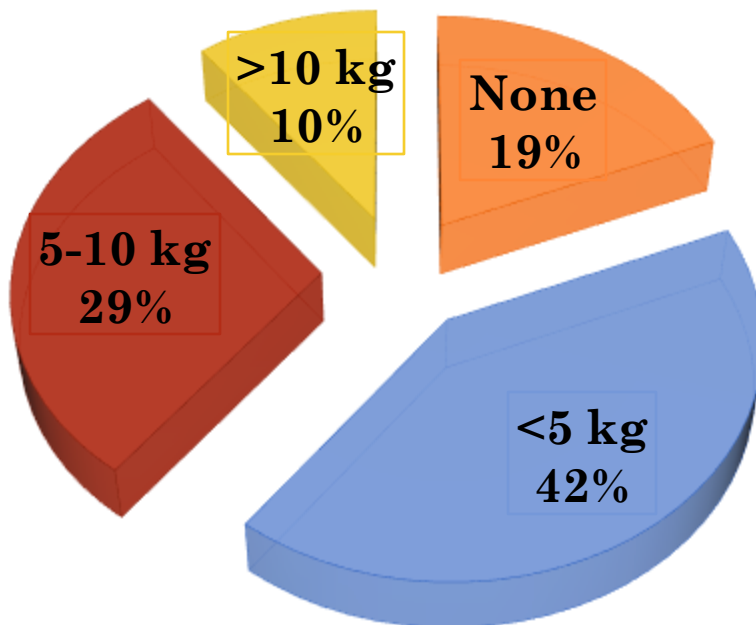


# REGURGITATION

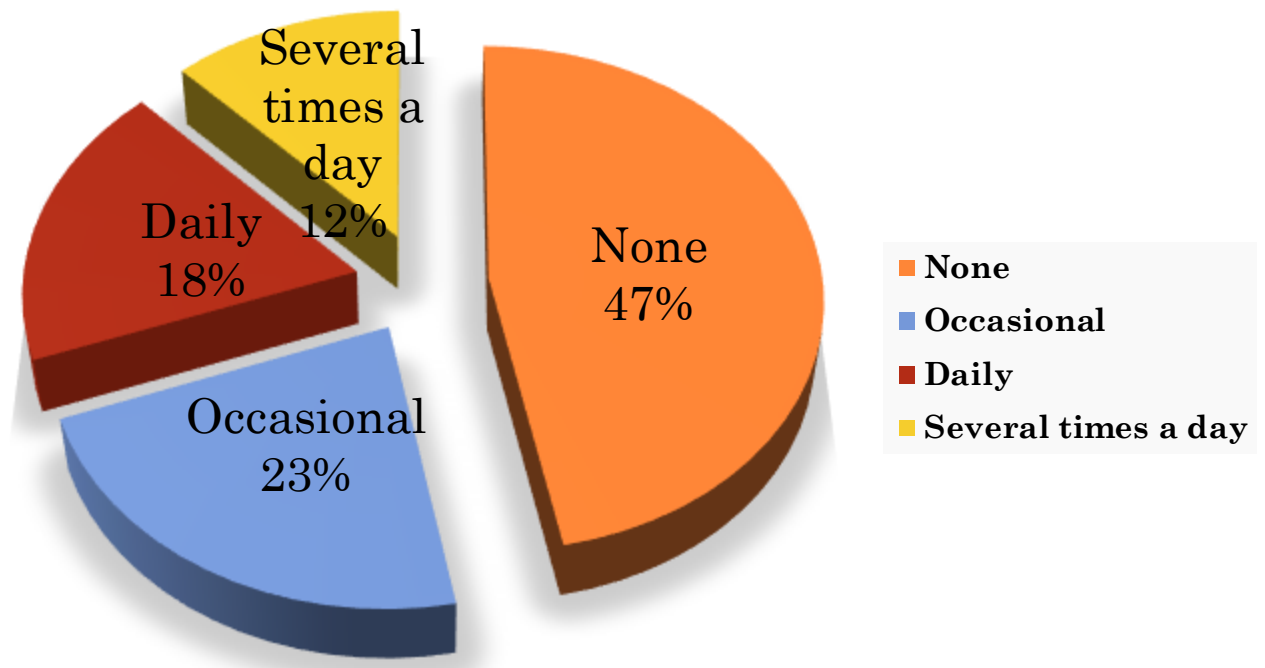


■ None ■ Occasional ■ Daily ■ Each meal

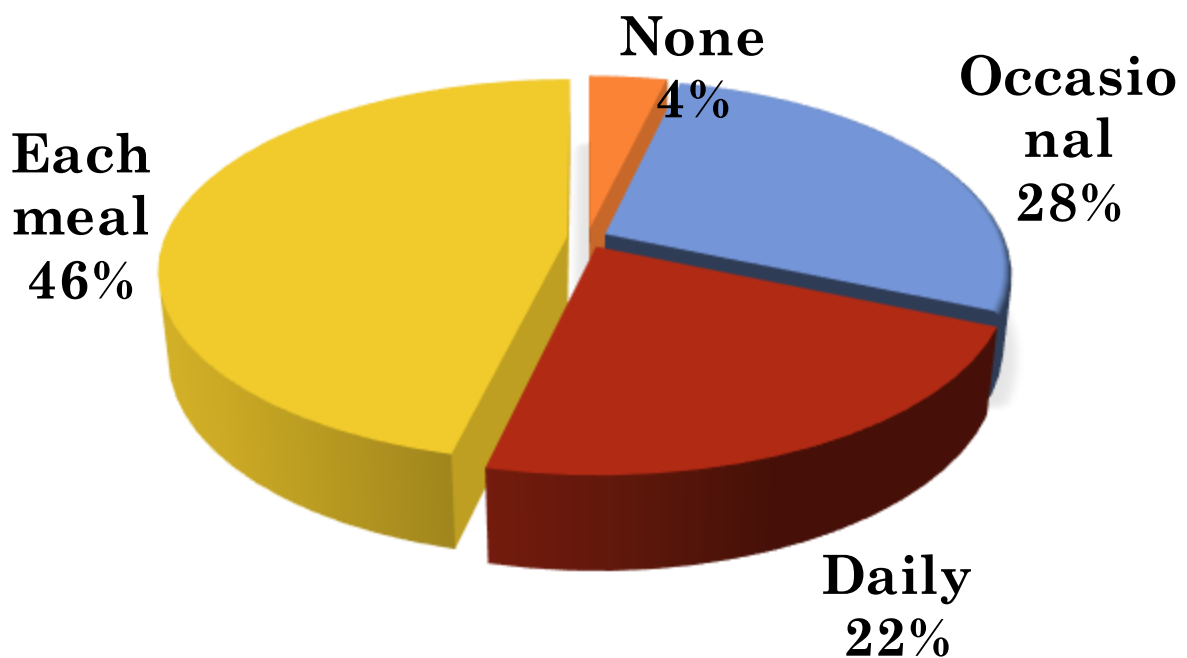
# WEIGHT LOSS



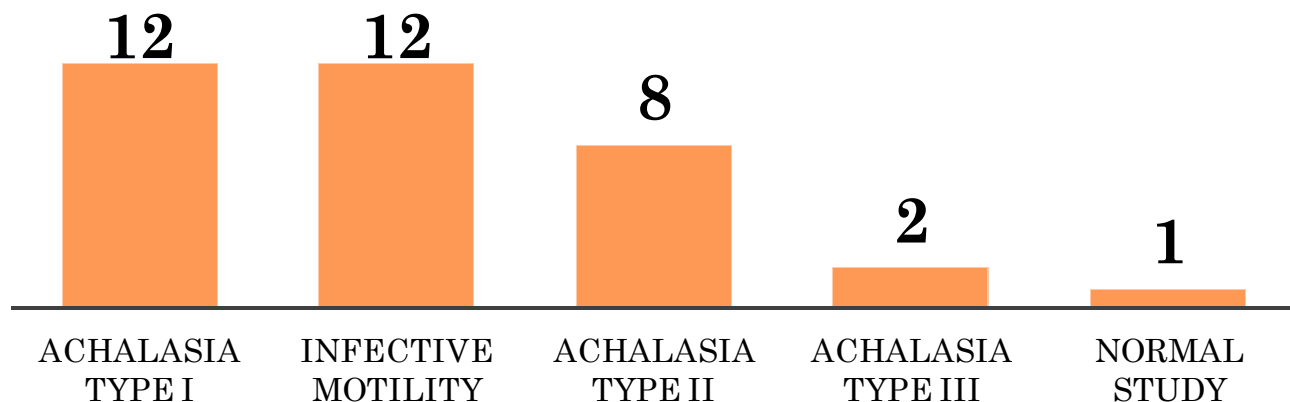
# RETROSTERNAL PAIN



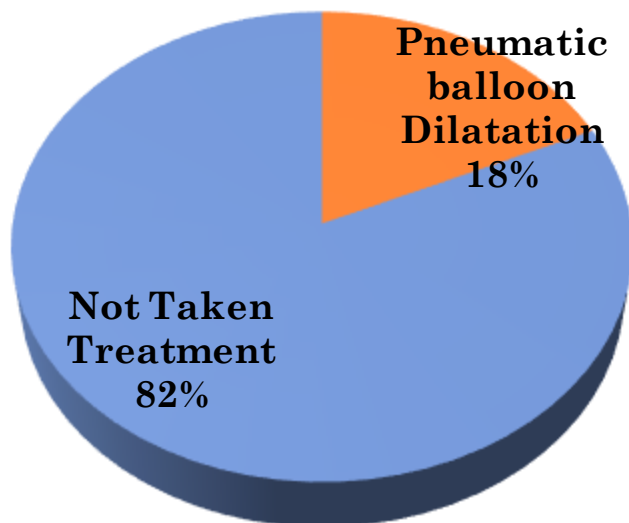
# PRESENTING COMPLAINT (DYSPHAGIA SEVERITY)



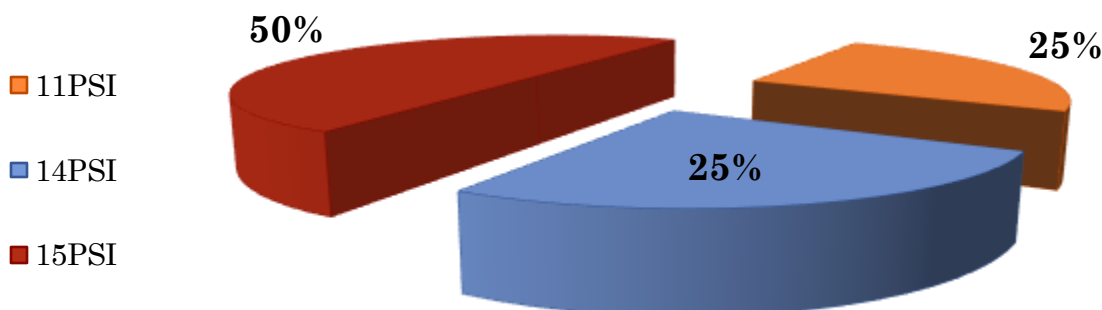
# HRM\_DIAGNOSIS (CHICAGO CLASSIFICATION)



## ACHALASIA PATIENTS WHO OPTED PNEUMETIC DILATATION IN OUR CENTRE



## PRESSURE USED DURING PROCEDURE BALLOON DILATATION IN ACHALASIA PATIENTS

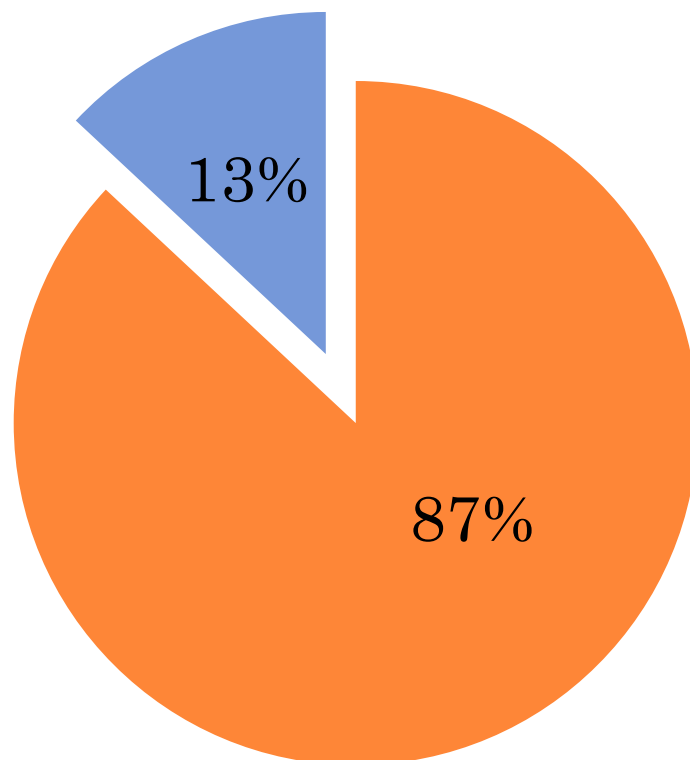


**2022**

# WITH ESOPHAGEAL AND ANORECTAL MANOMETRY DISTRIBUTION.

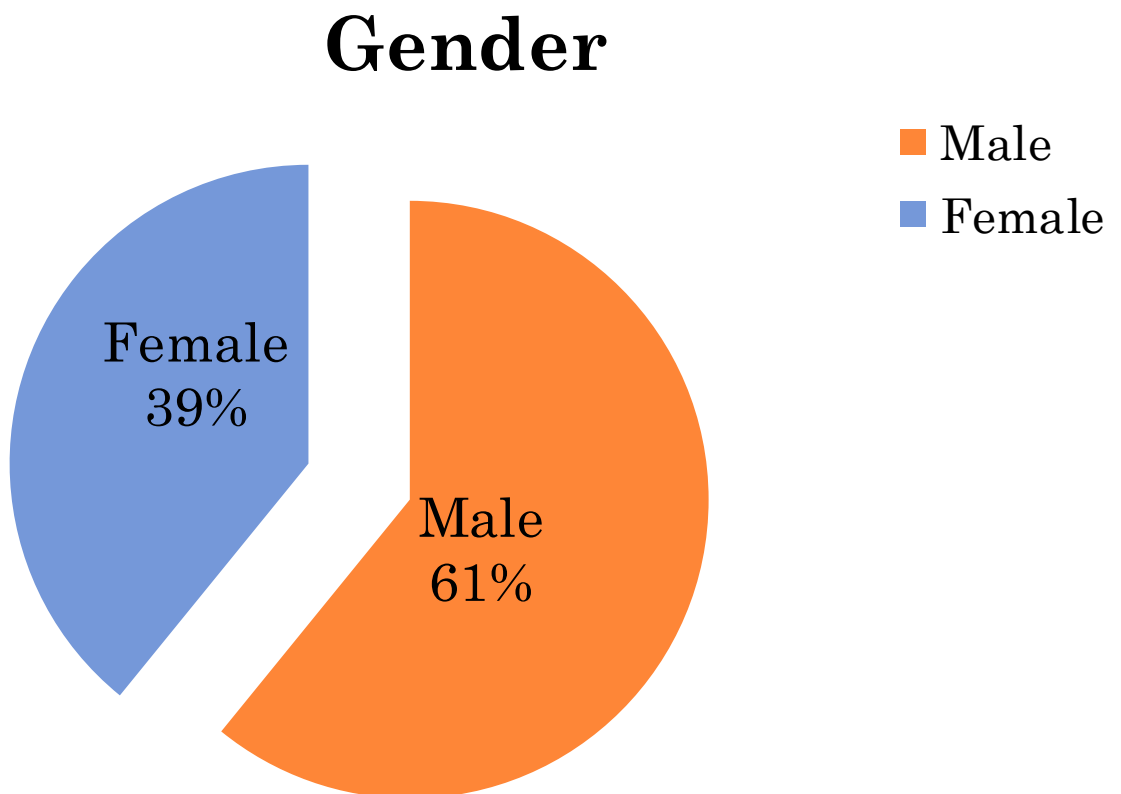
<b>Total No of Patients</b>	<b>23</b>
Esophageal Manometry	20
Anorectal Manometry	03

■ Esophageal Manometry ■ Anorectal Manometry



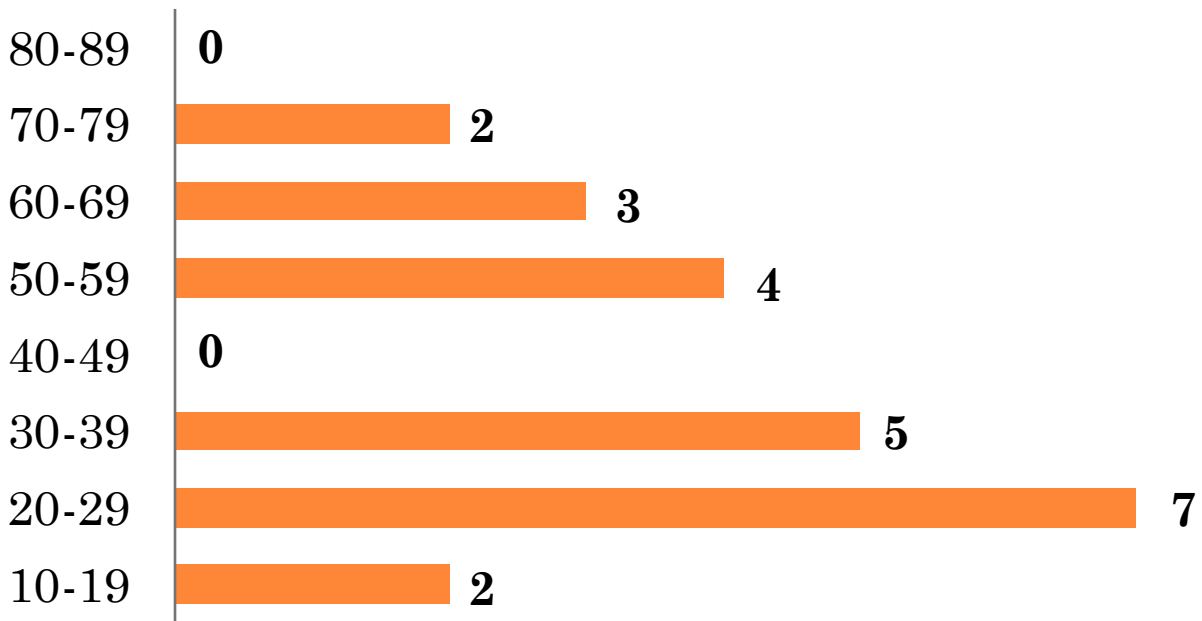
# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION.

<b>Total No of Patients</b>	<b>23</b>
Male	14
Female	09

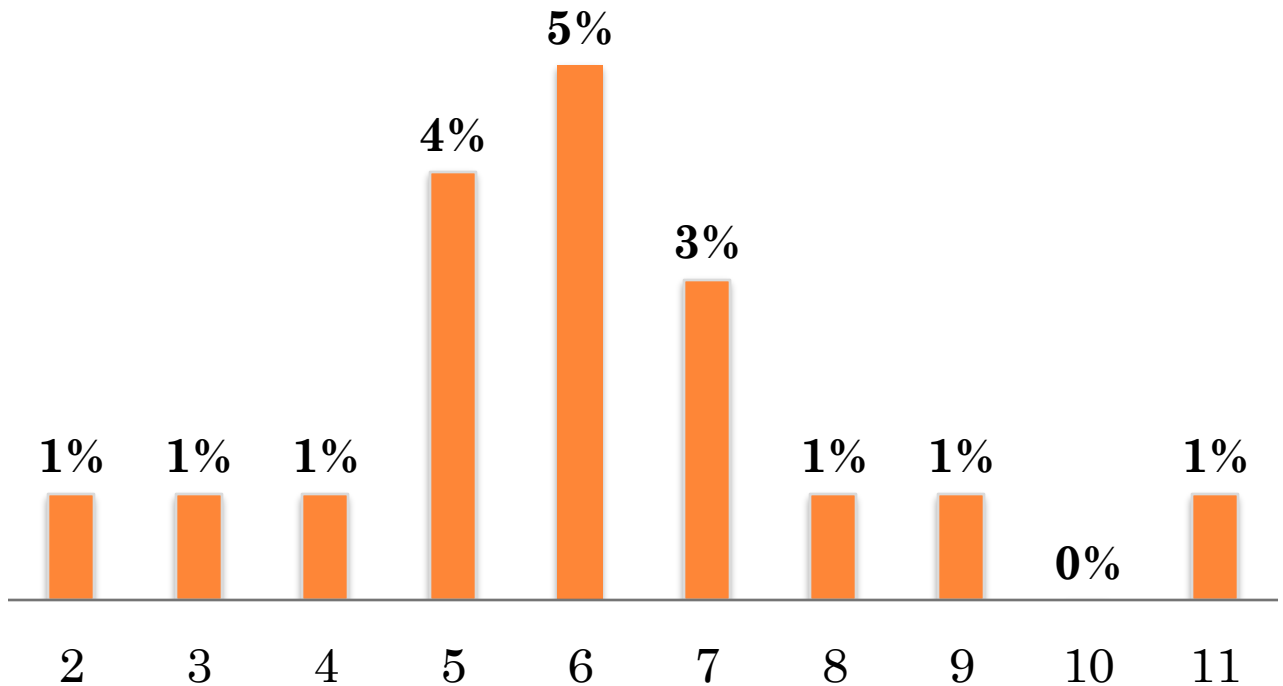




# AGE WISE DISTRIBUTION

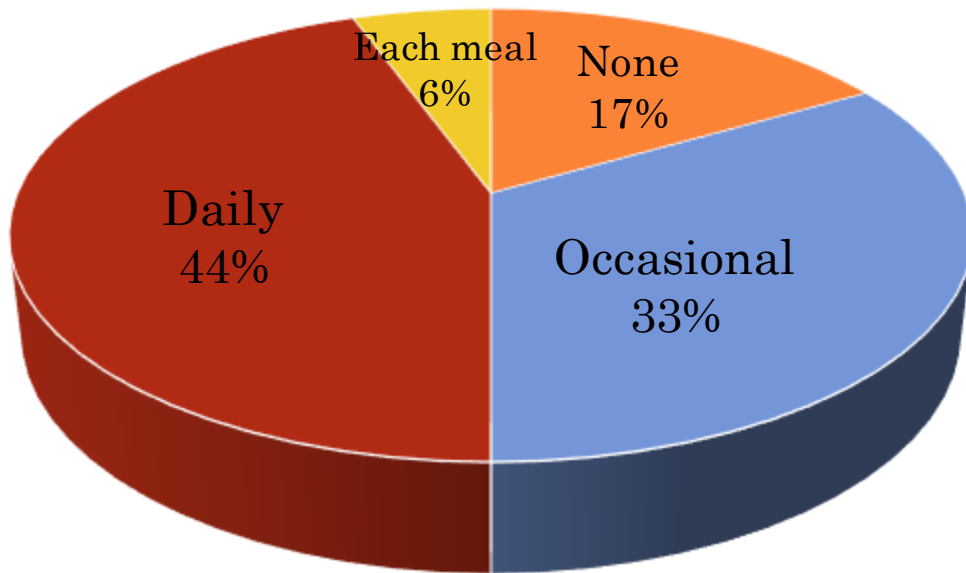


# ECKARDT SCORE



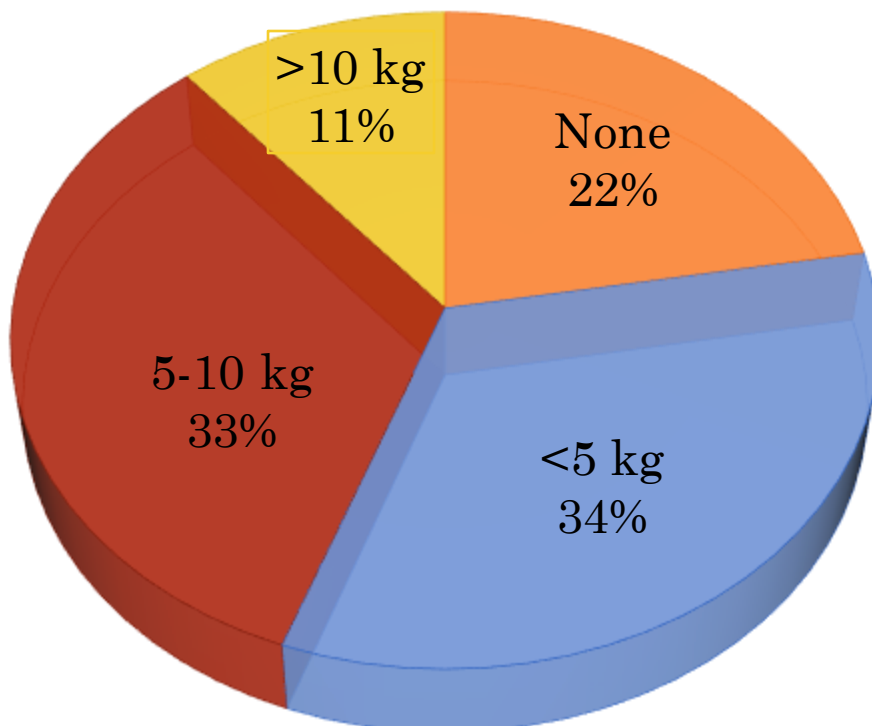
# PRESENTING COMPLAINT

## REGURGITATION



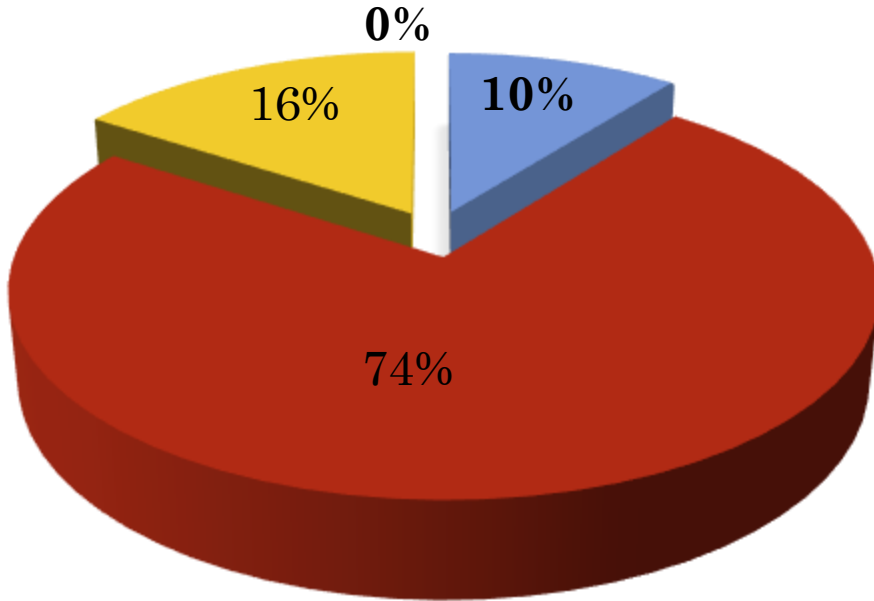
None Occasional Daily Each meal

## WEIGHT LOSS

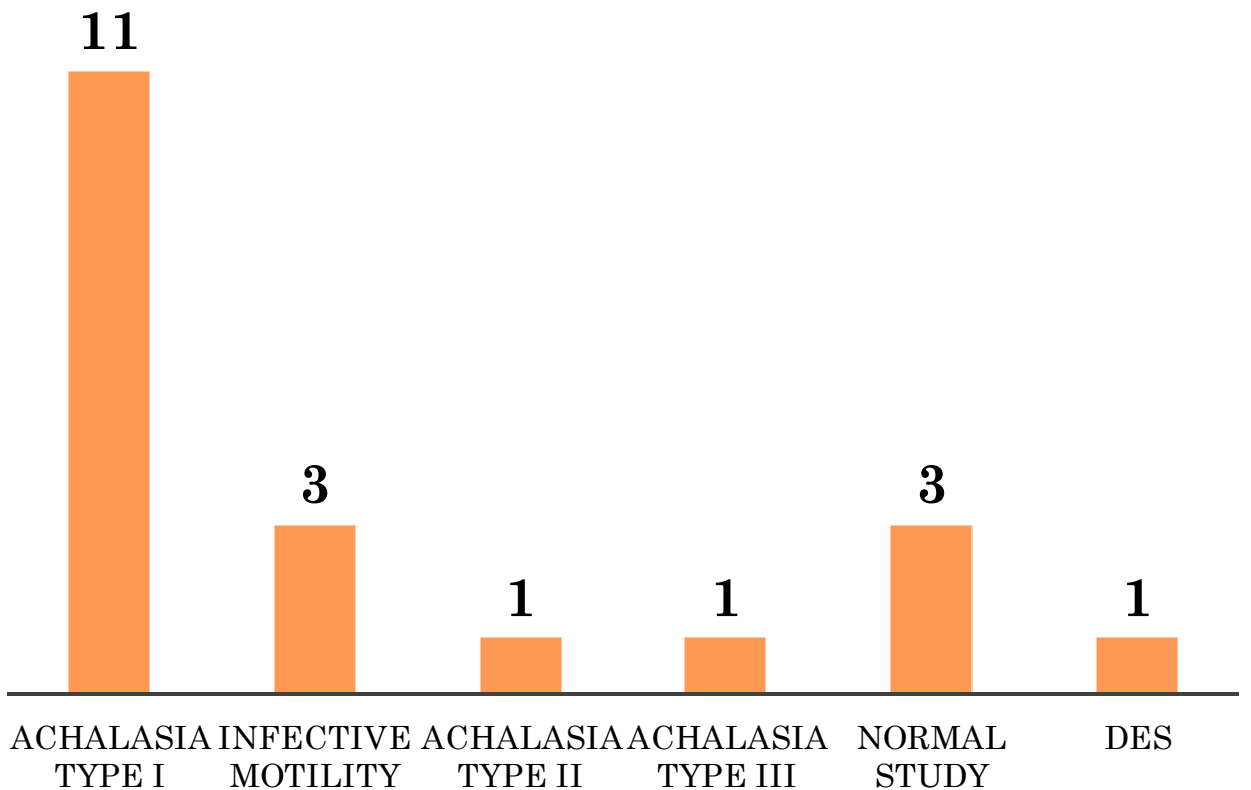


# DYSPHAGIA SEVERITY

None Occasional Daily Each meal

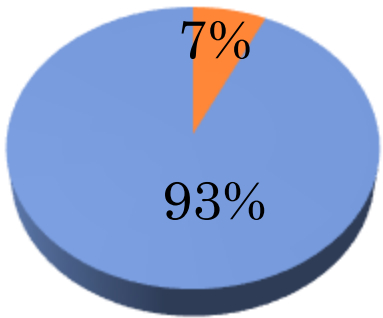


# HRM DIAGNOSIS (CHICAGO CLASSIFICATION)

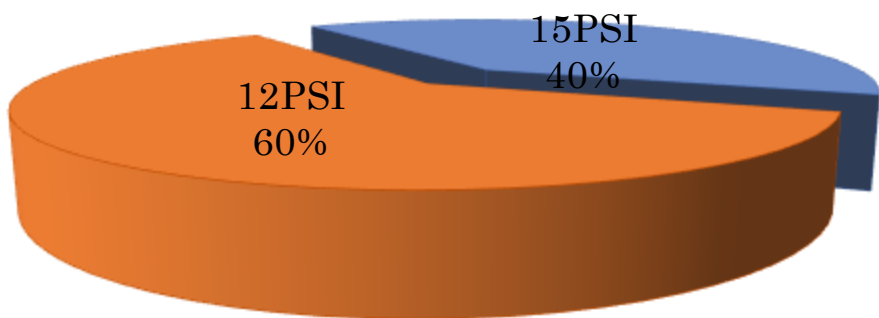


# ACHALASIA PATIENTS WHO OPTED PNEUMETIC DILATATION IN OUR CENTRE

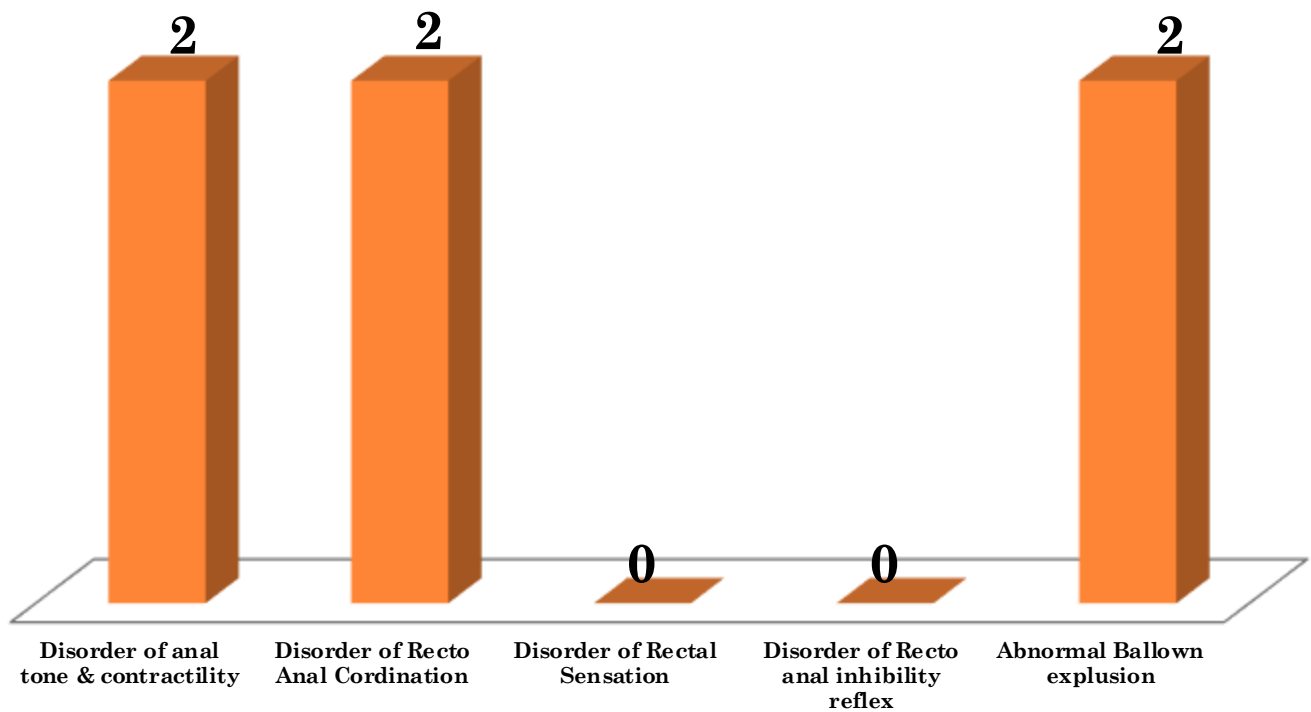
■ Pneumatic balloon Dilatation    ■ Not Taken Treatment



# PRESSURE USED DURING PROCEDURE BALLOON DILATATION IN ACHALASIA PATIENTS



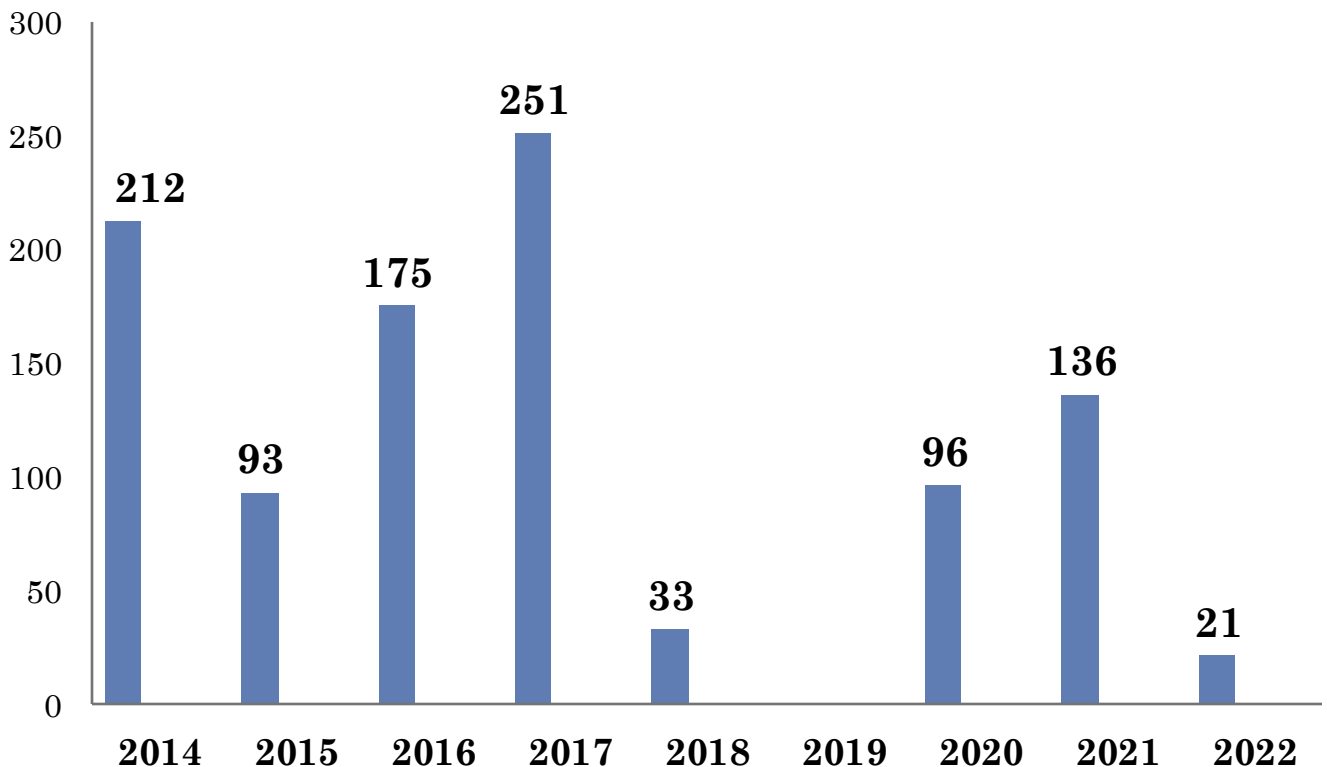
# ARM DIAGNOSIS



# Fibro Scan Audit

Liver biopsy has long been the gold standard to stage fibrosis, however over the last decade it has been replaced by the non-invasive technique, that works by measuring shear wave velocity. Reliability and reproducibility have been well characterized for elastography with Fibro scan, and it is important to ensure that these technical requirements are achieved to make the scan results valid. Particularly, a valid result requires 8—10 measurements with a 60% success rate and an interquartile range(IQR) less than 0.3.

Our center was the first public sector to start this facility. This year the equipment has been upgraded to Echosens 502 that apart from liver stiffness measurement can also determine steatosis quantification.

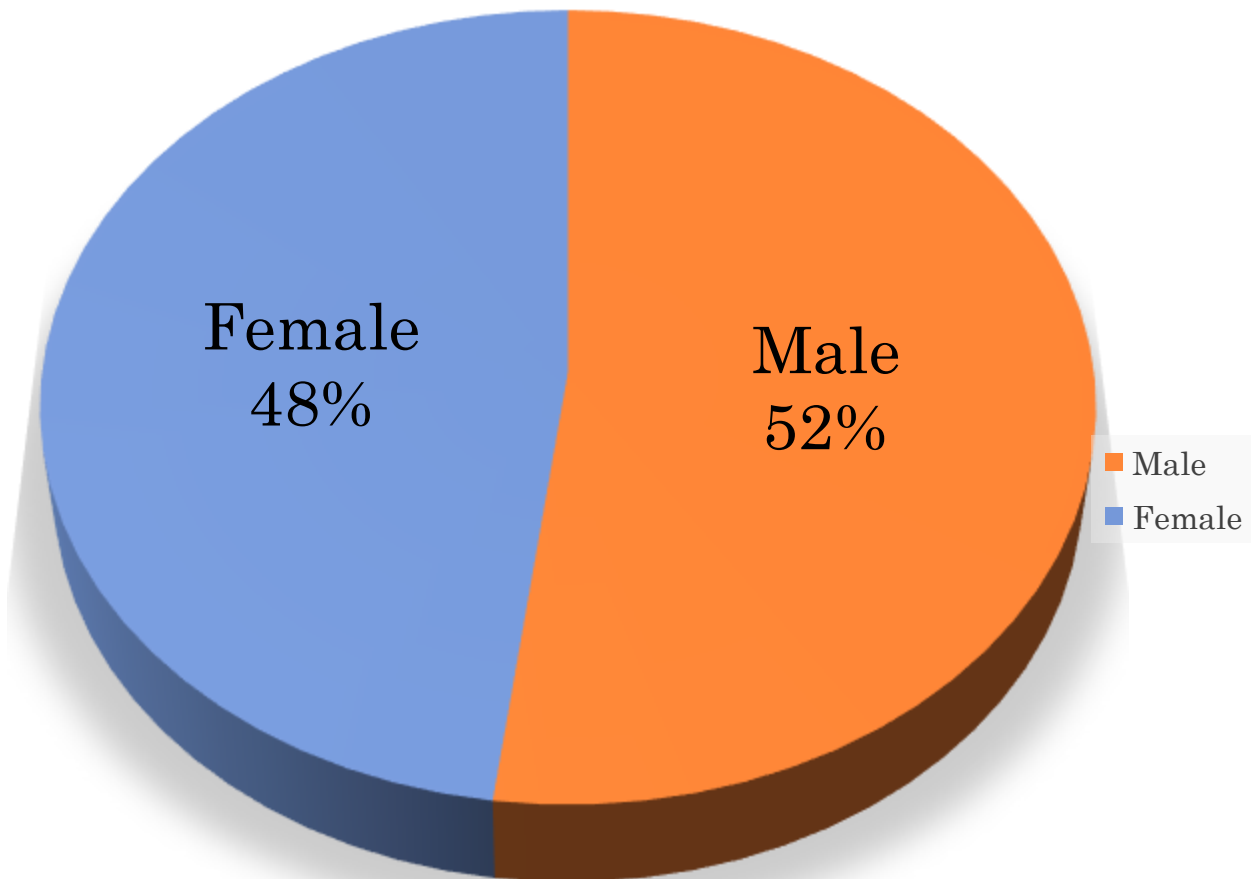


**2020**

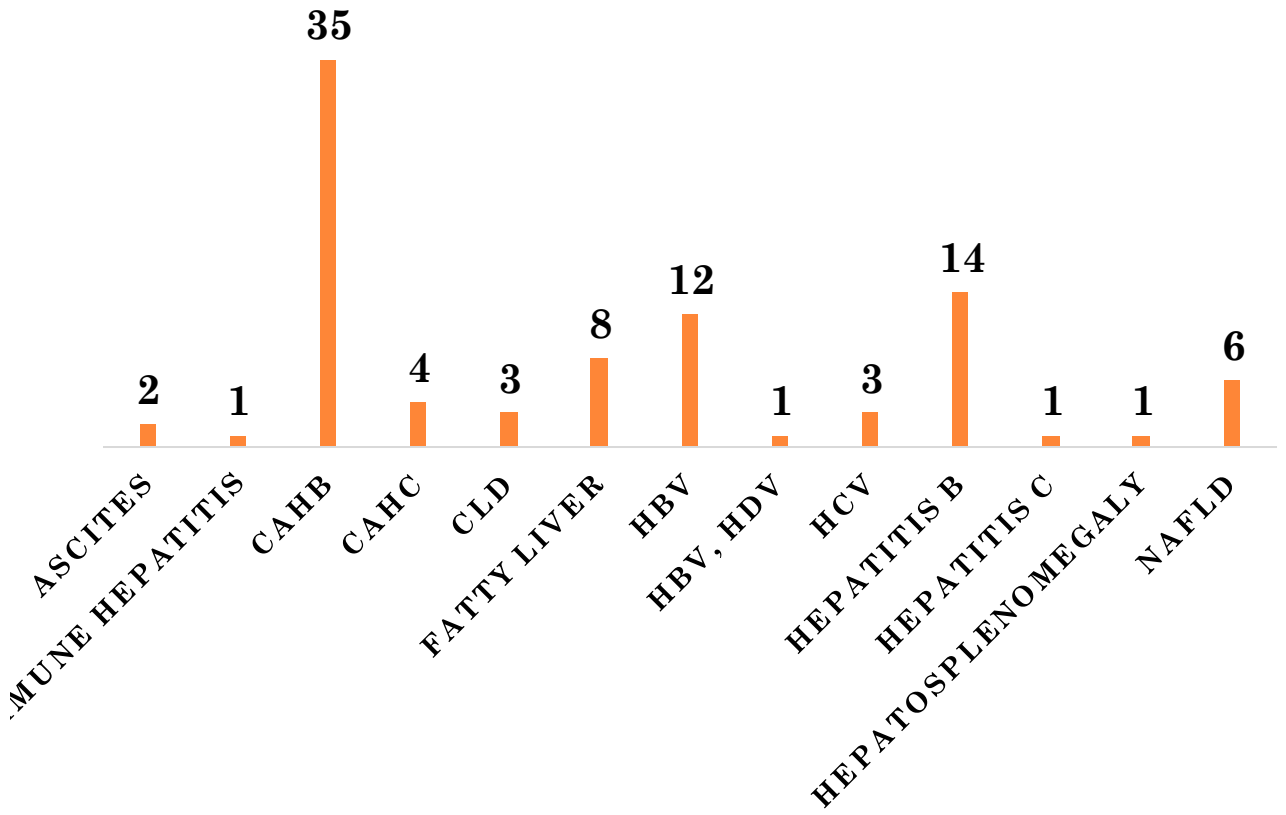
# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION

TOTAL NO OF PATIENTS	96
MALE	50
FEMALE	46

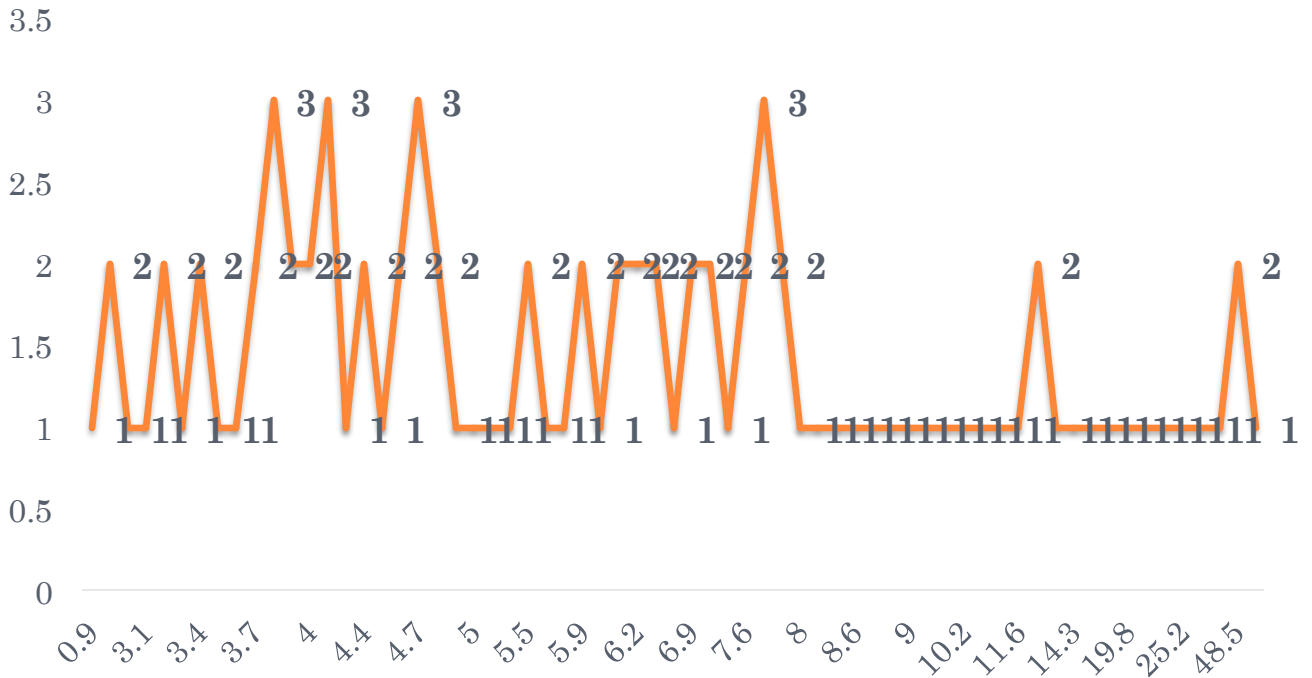
## GENDER



# INDICATION

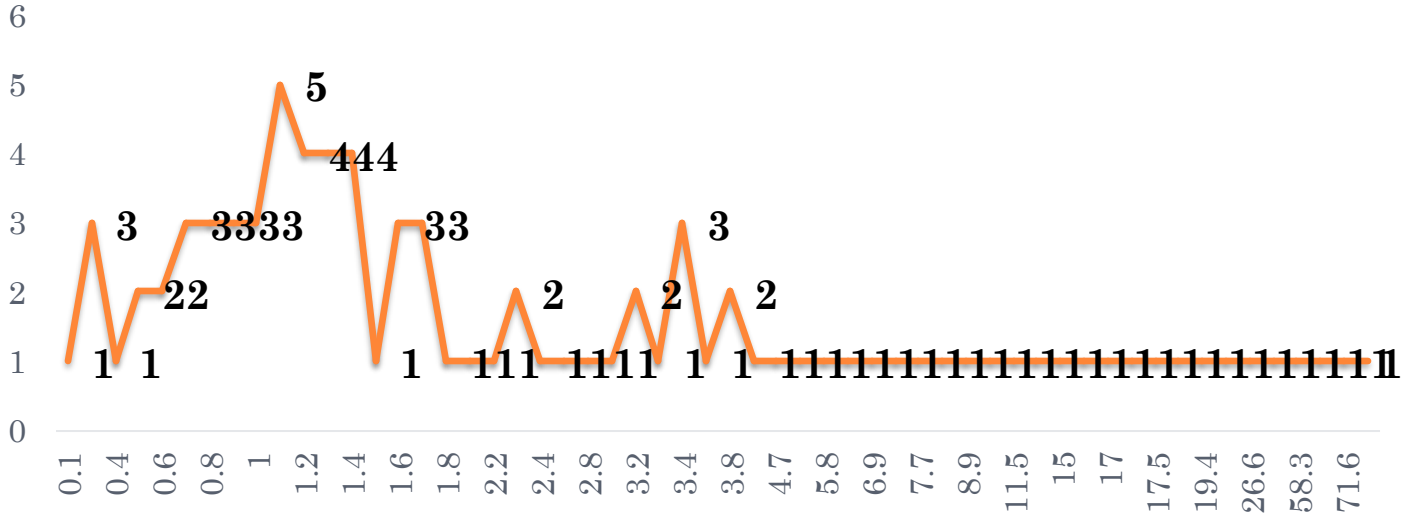


# LSM

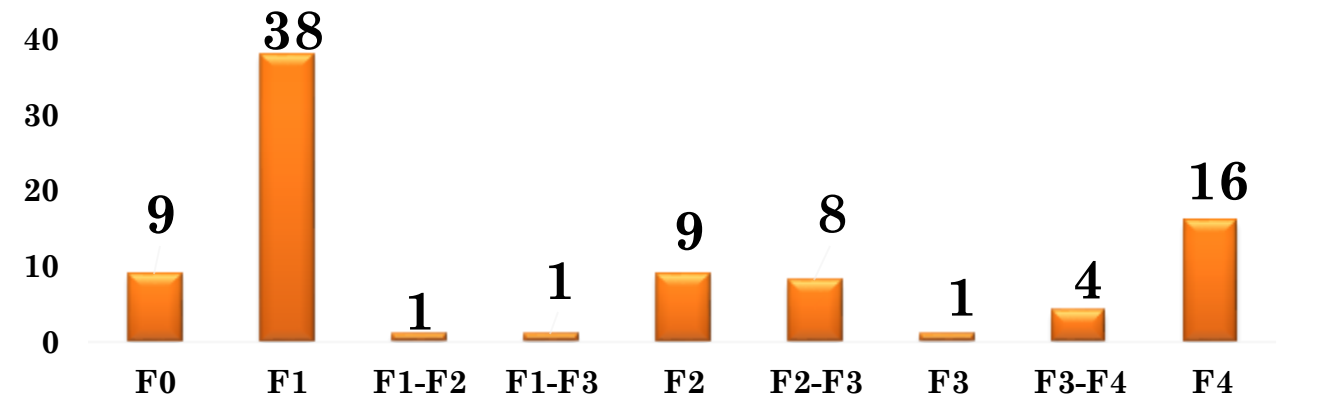
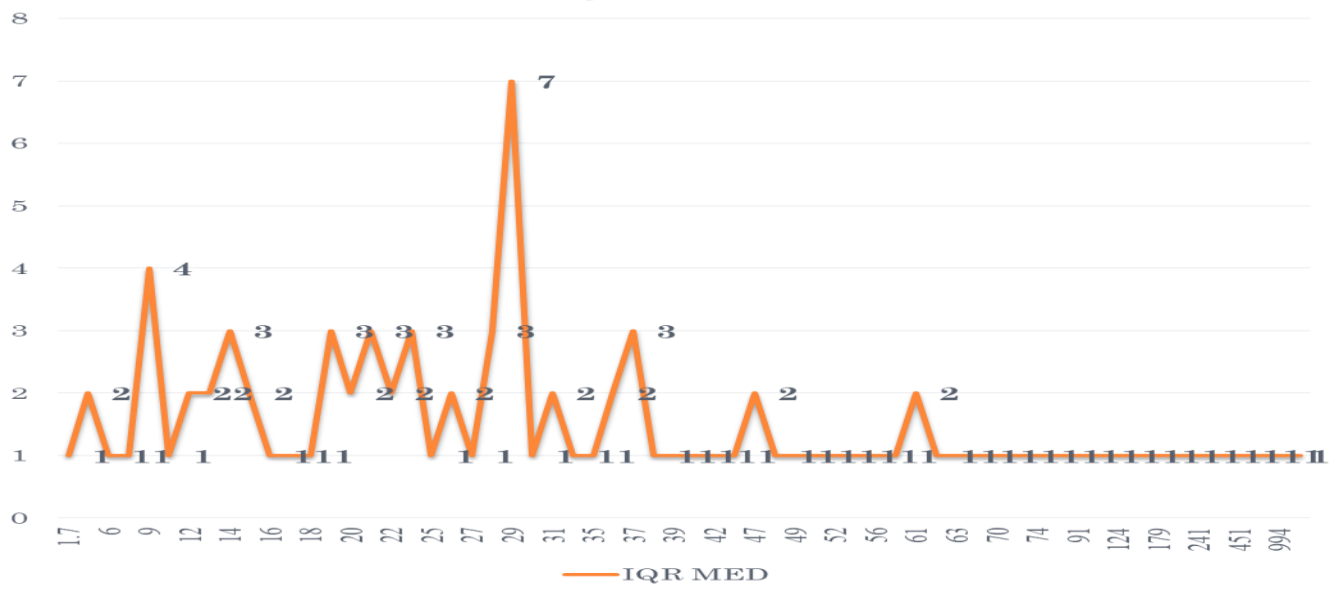




# IQR



# IQR MED

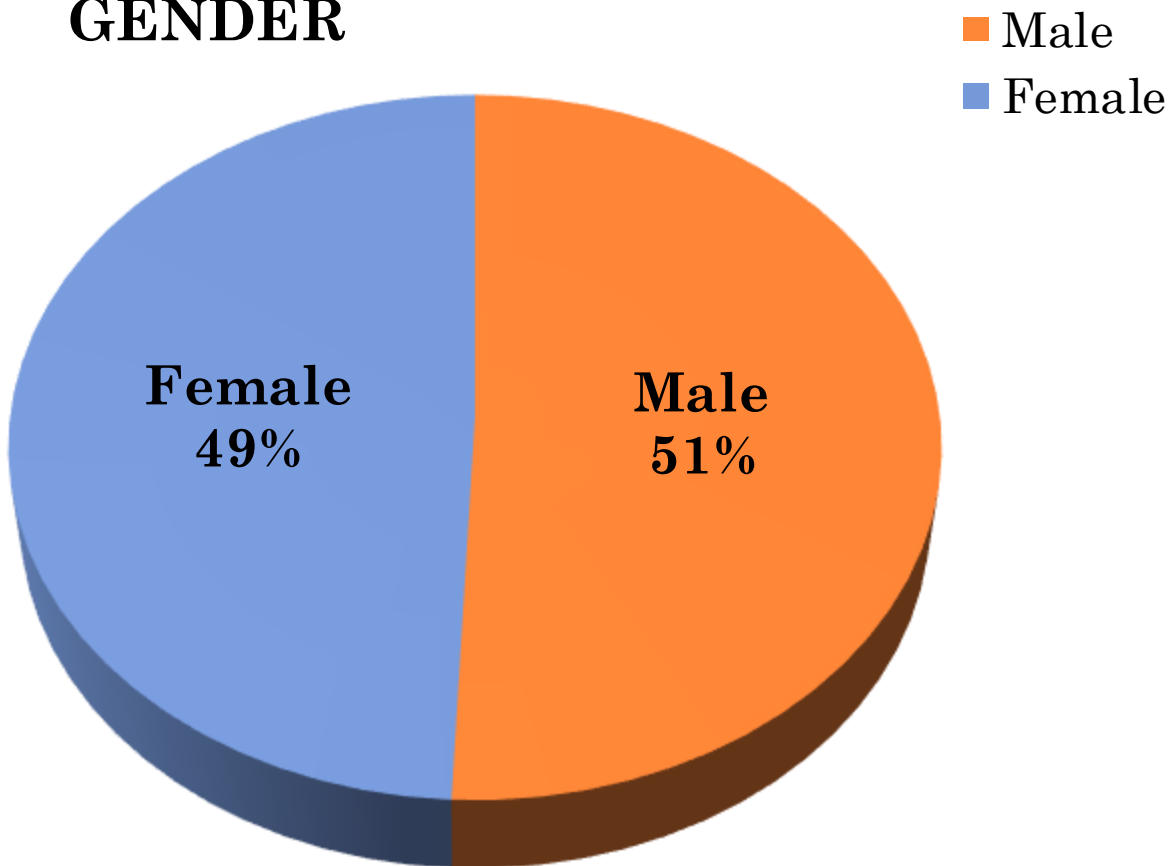


**2021**

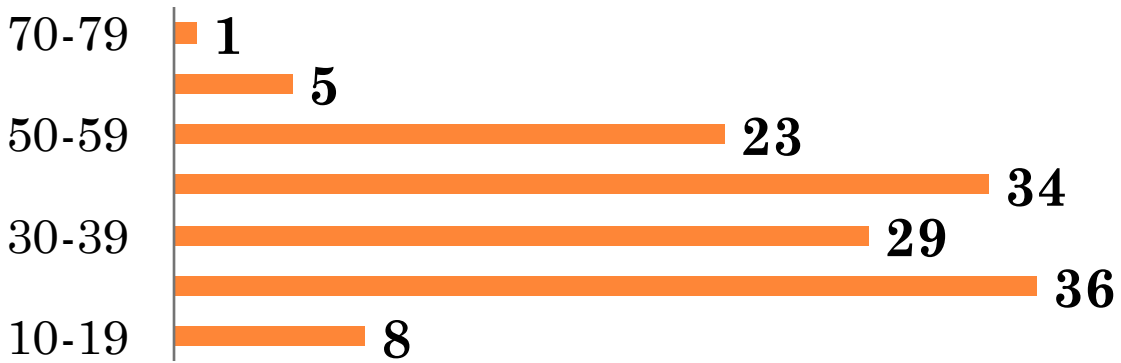
# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION

<b>TOTAL NO OF PATIENTS</b>	<b>136</b>
MALE	69
FEMALE	67

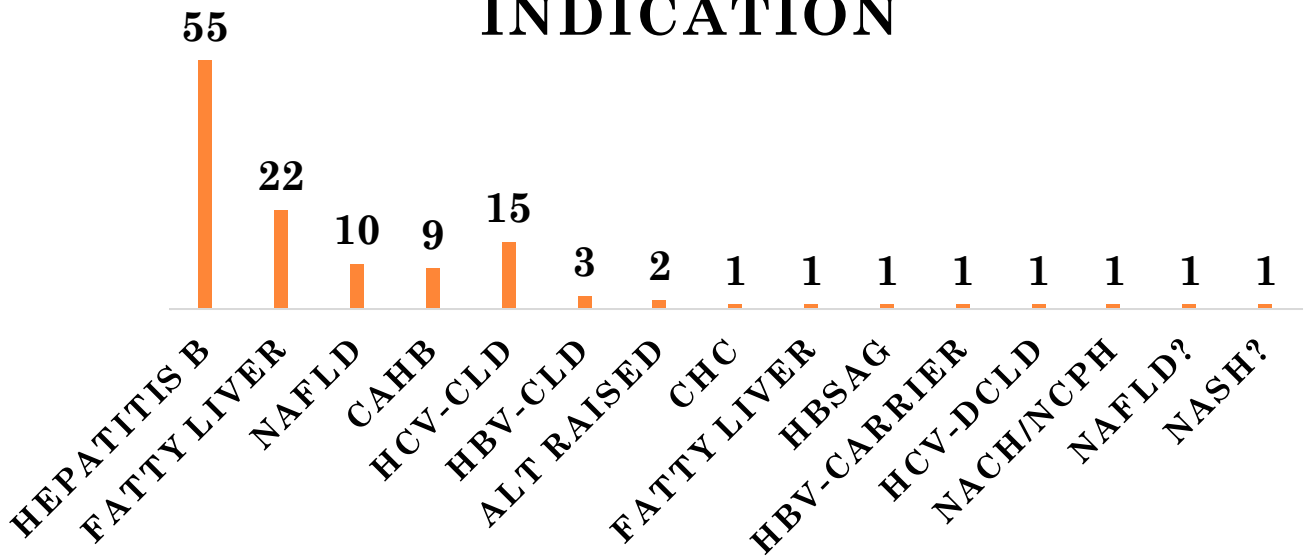
## GENDER



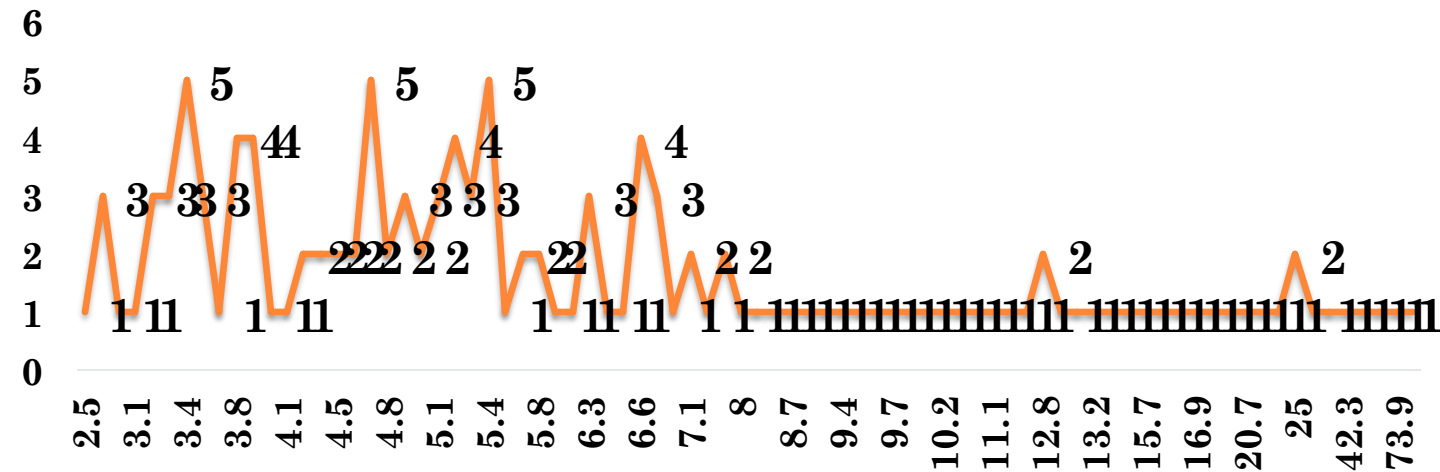
# AGE WISE DISTRIBUTION



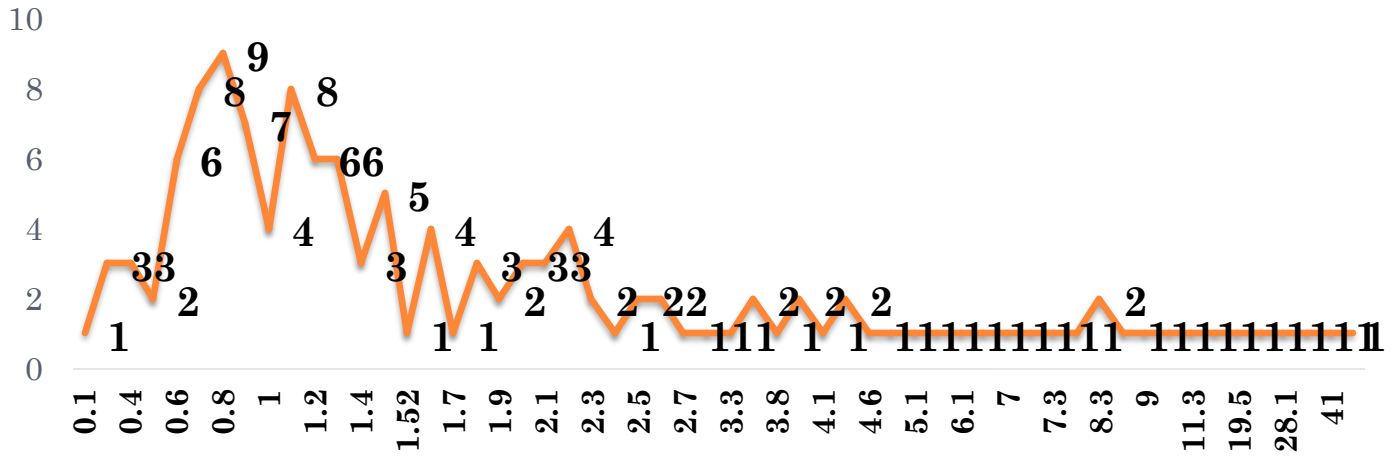
# INDICATION



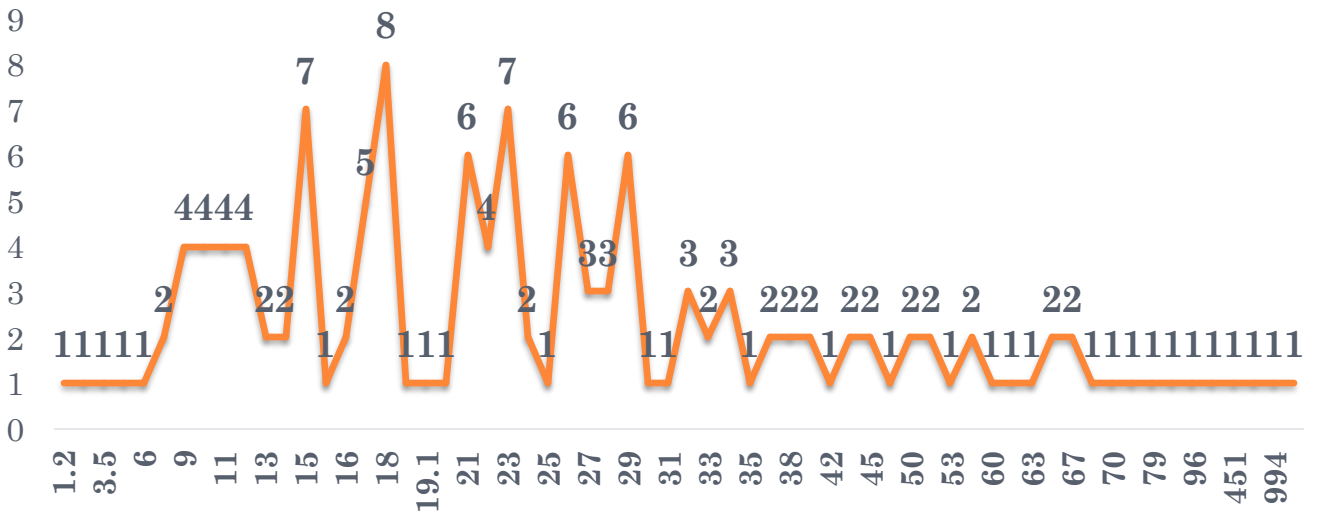
# LSM



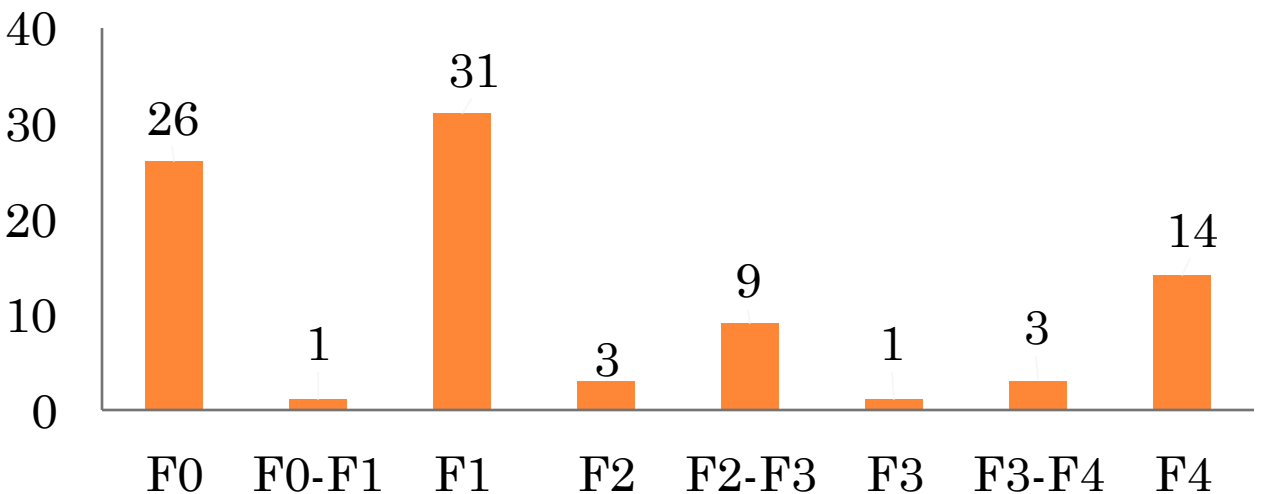
# IQR



# IQR MED



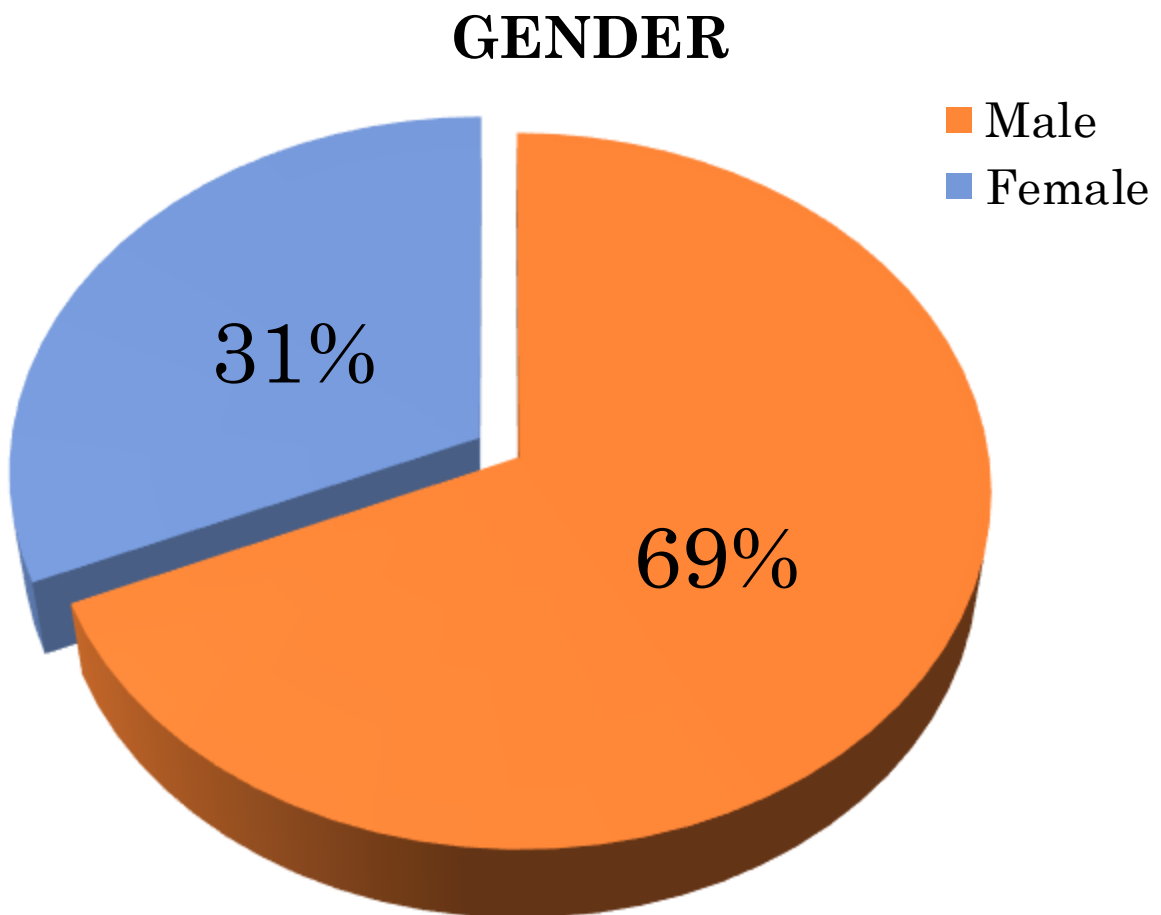
# IMPRESSION



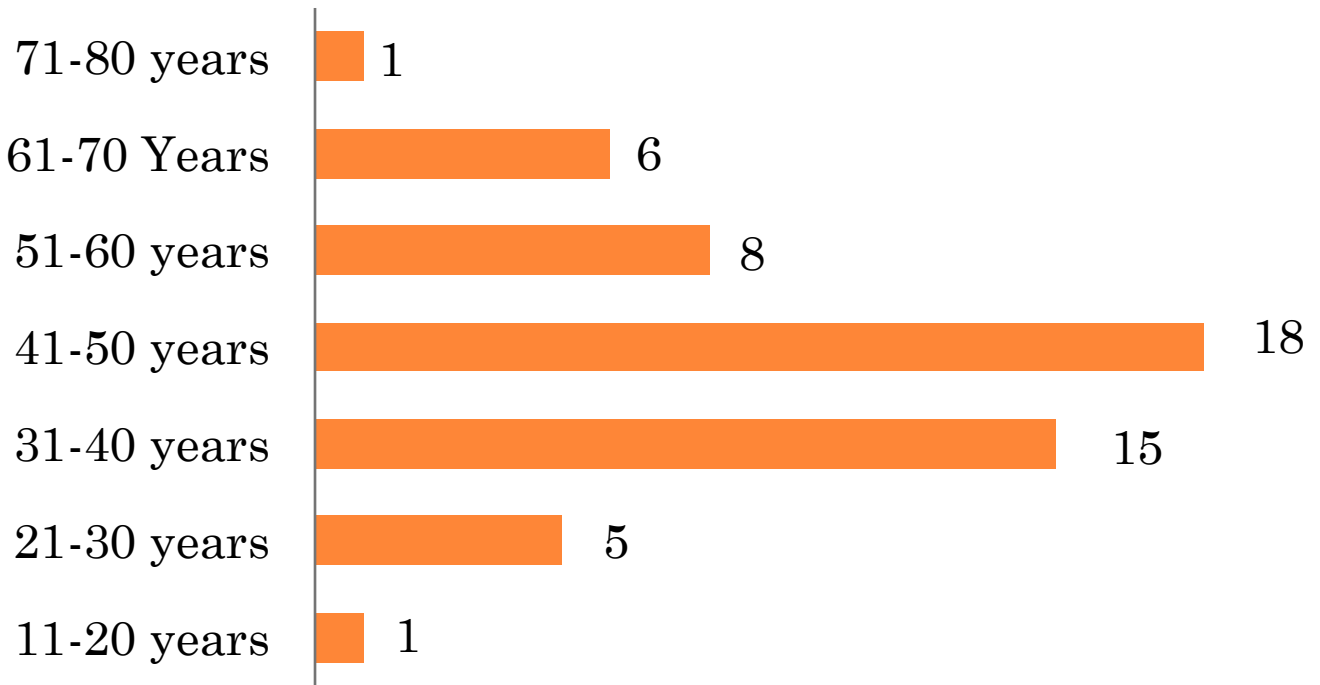
**2022**

# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION.

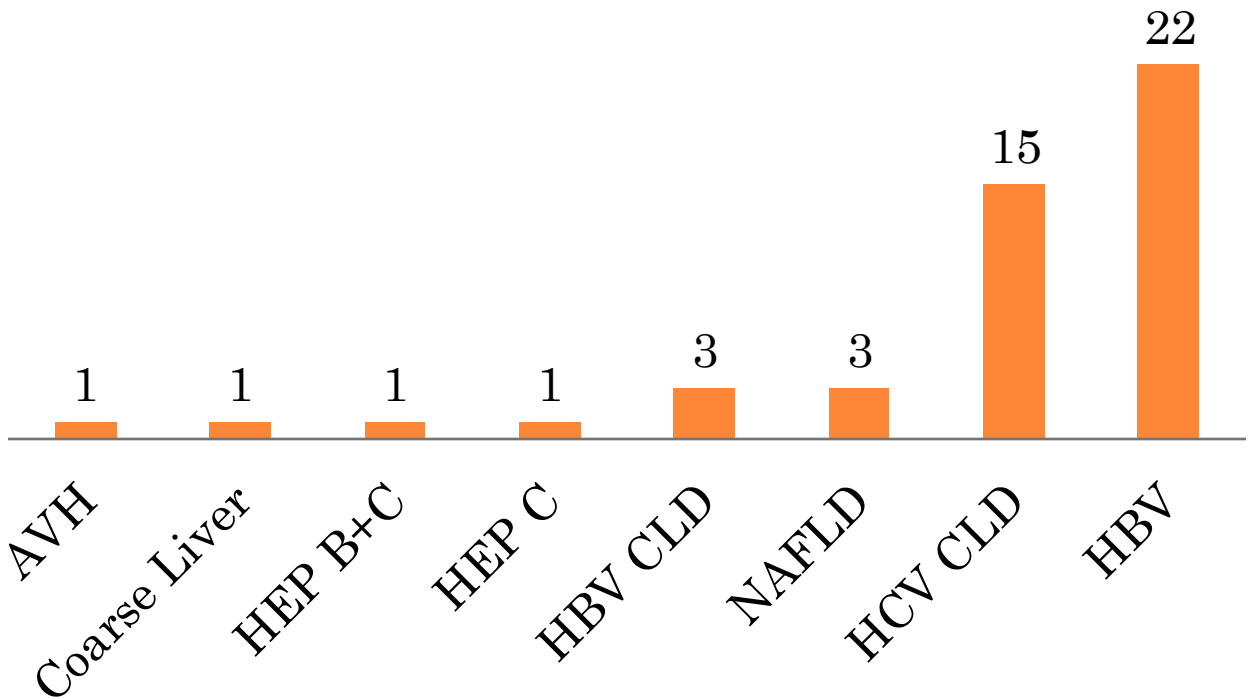
<b>TOTAL NO OF PATIENTS</b>	<b>54</b>
Male	37
Female	17



# GENDER WISE DISTRIBUTION WITH INDICATION

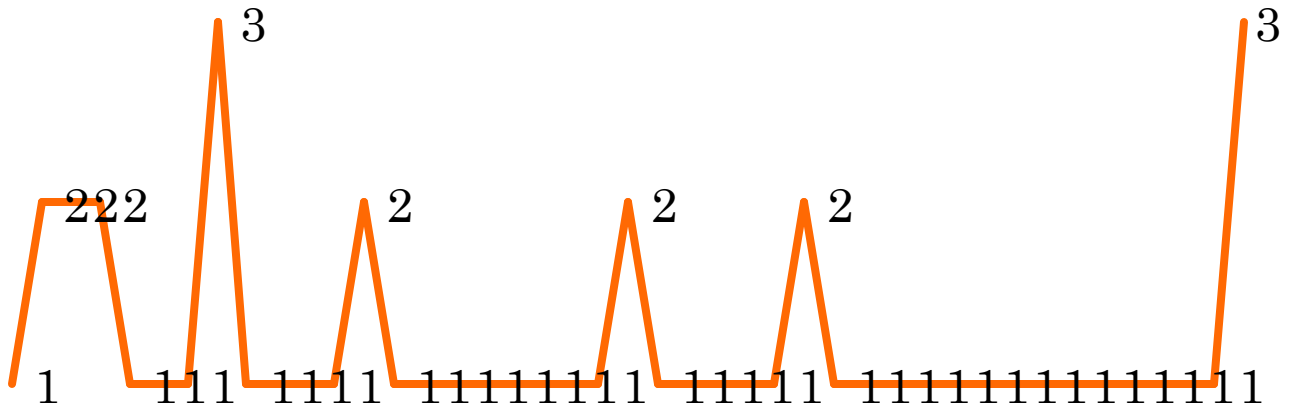


## INDICATION



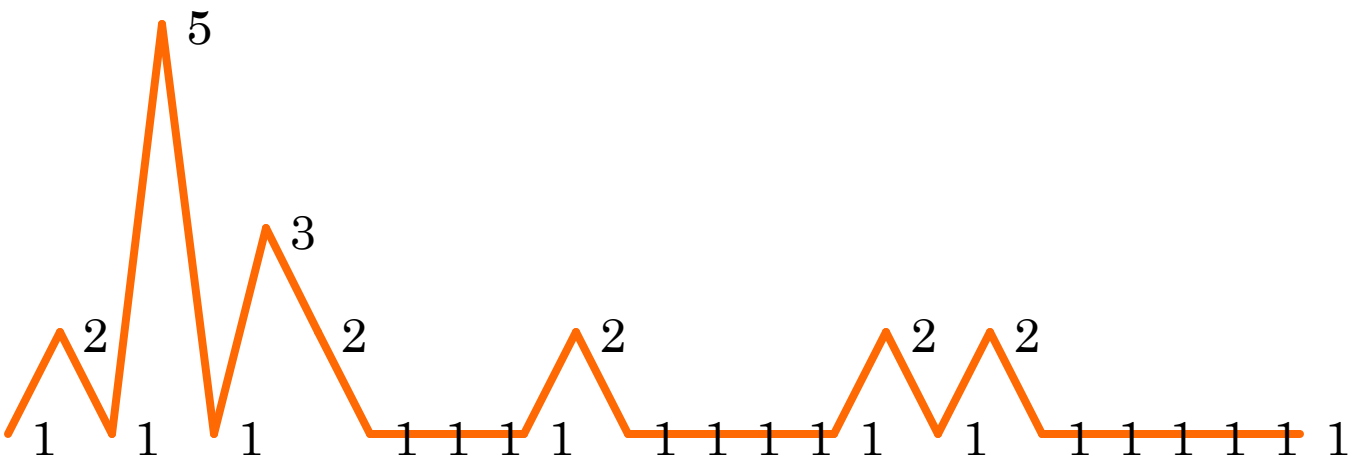


# LSM



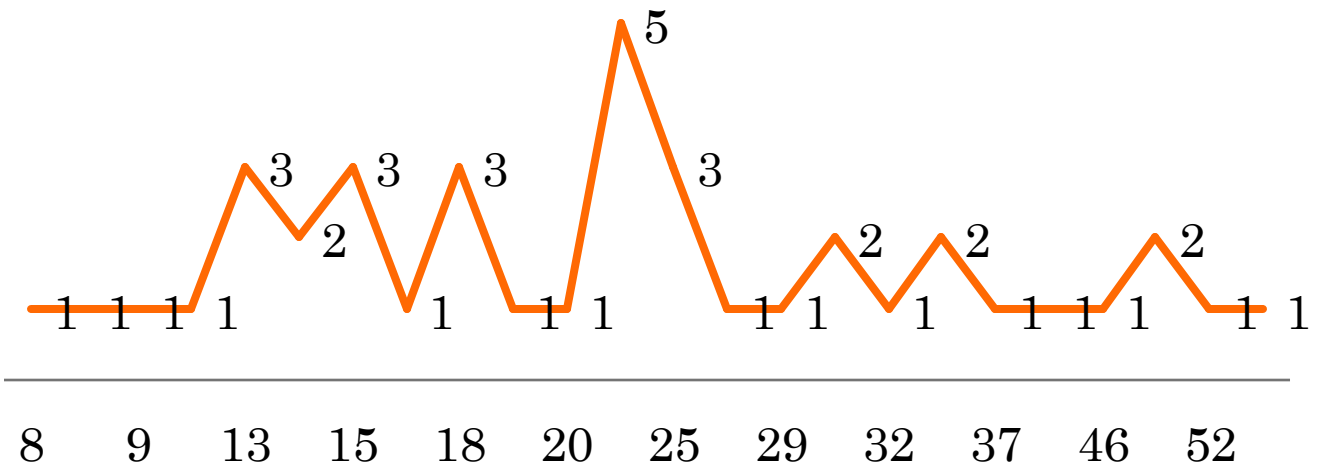
3  
4.2  
5.1  
5.5  
6.5  
8.1  
9.1  
10.3  
10.8  
13.2  
17.2  
22.3  
29  
38.4  
75

# IQR

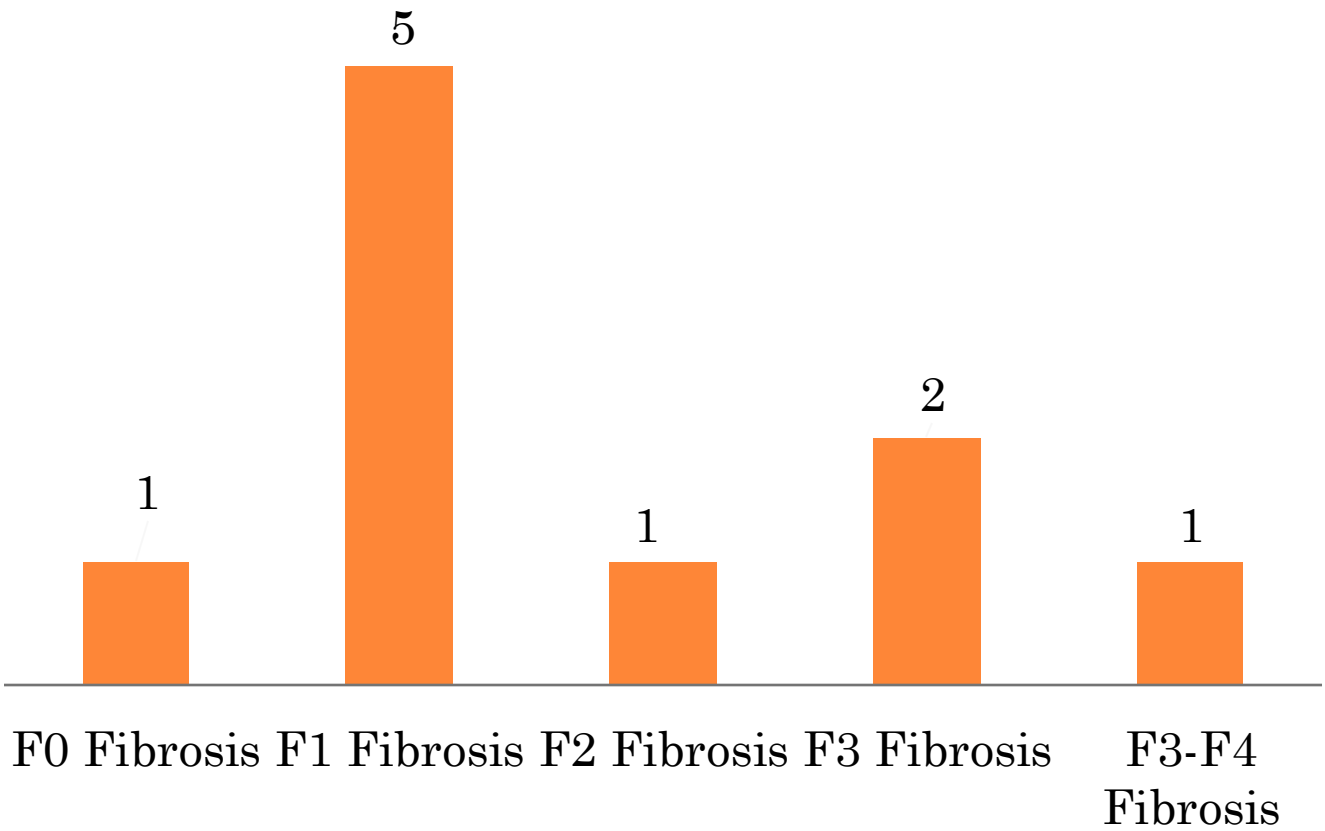


0.4  
0.7  
0.9  
1.3  
1.5  
1.7  
1.9  
2.3  
2.6  
3.1  
4.4  
4.9  
7.6

# IQR MED



# Impression

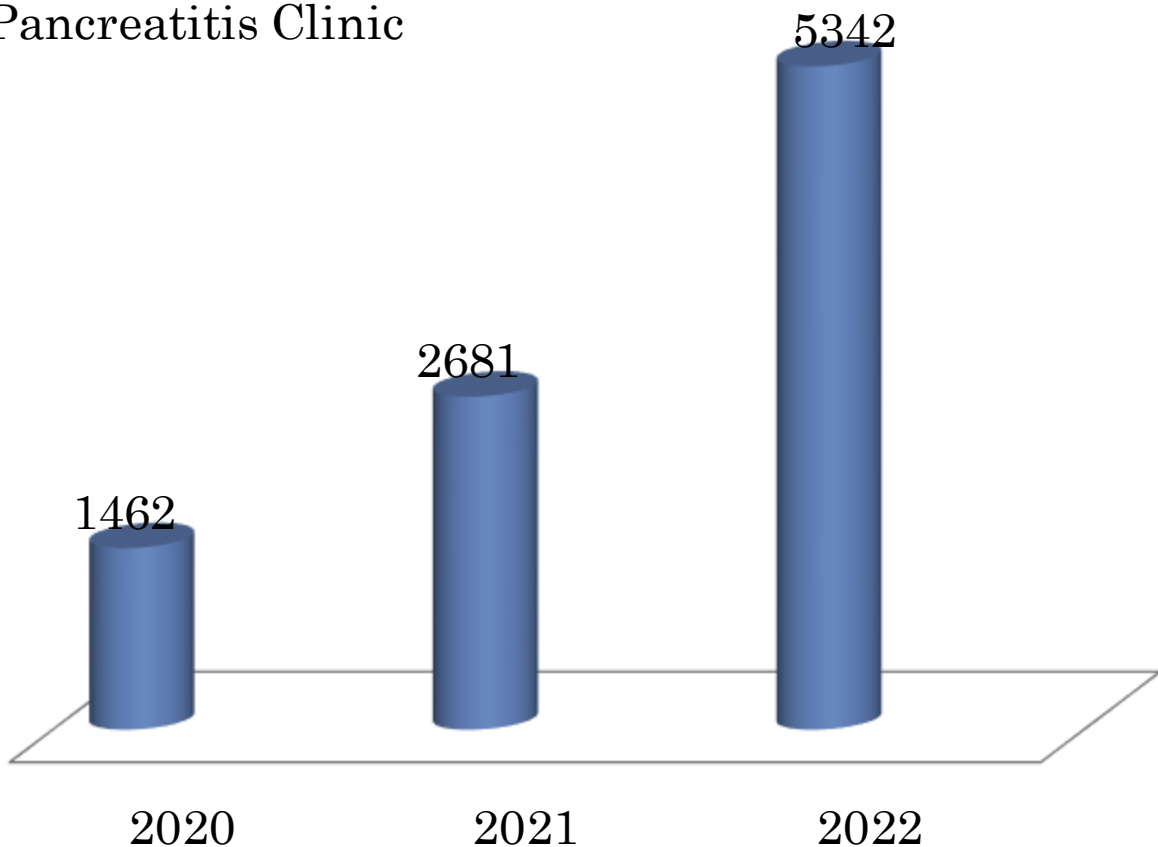


# OPD Audit

Gastroenterology department apart from its specialized clinics, provides OPD services for patients 3 days a week. During the COVID years there was a relative decline in the GI OPDs, however in 2022 once the limitations were off the number increased to more than 5000. The commonest presentation is dyspepsia followed by decompensated liver disease follow-up. The age group with most foot falling is between 40-50 years.

Our department also extends the OPD services through its specialized clinics as follows:

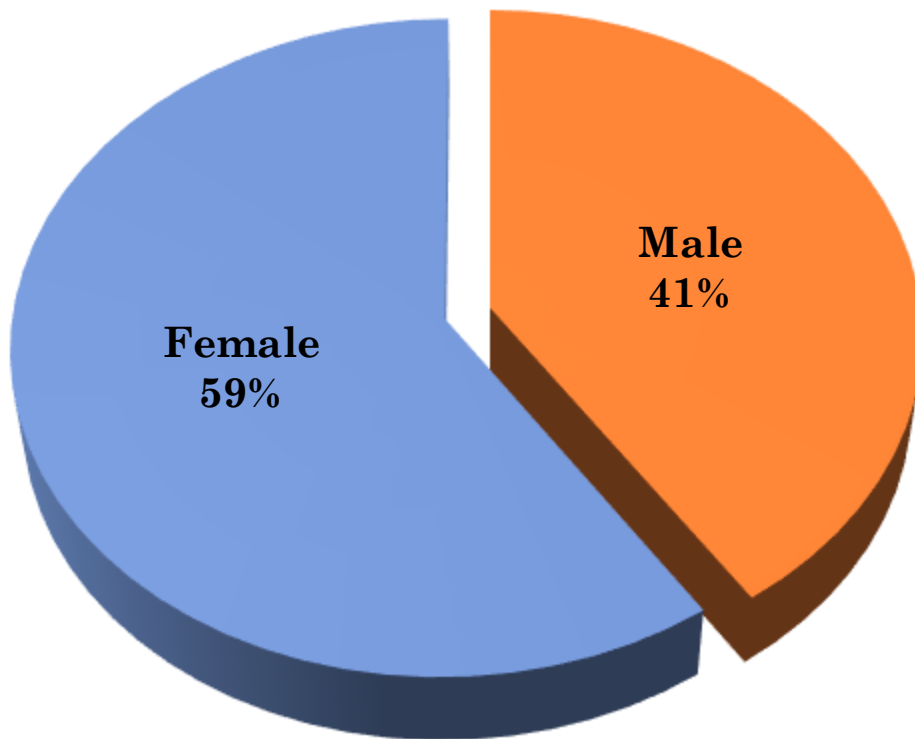
- Hepatitis Clinic
- IBD clinic
- Pancreatitis Clinic



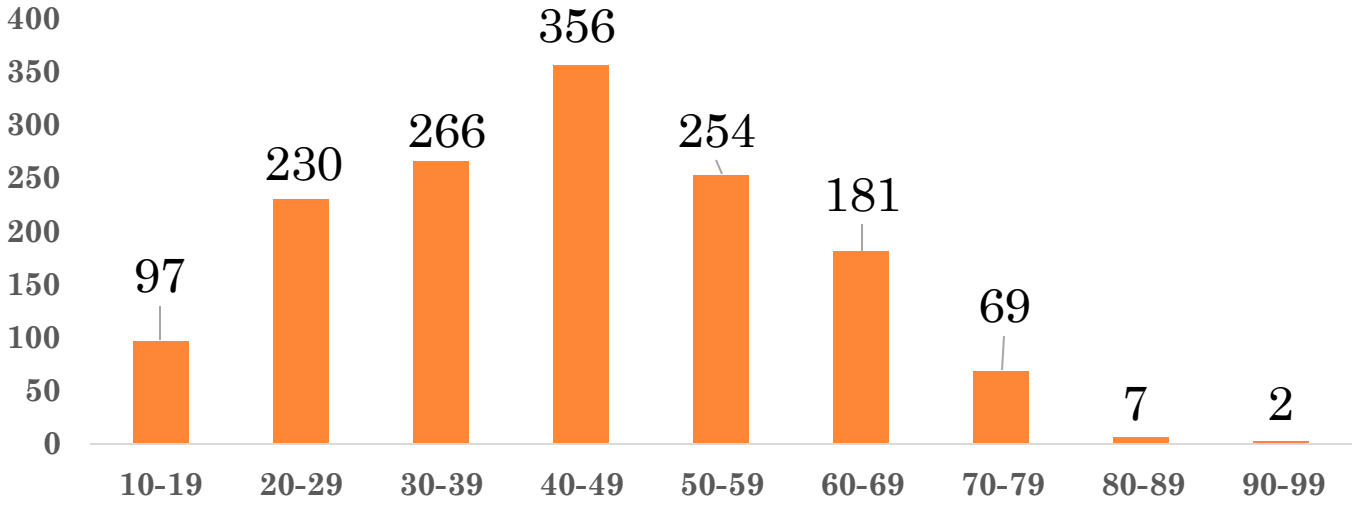
**2020**

# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION

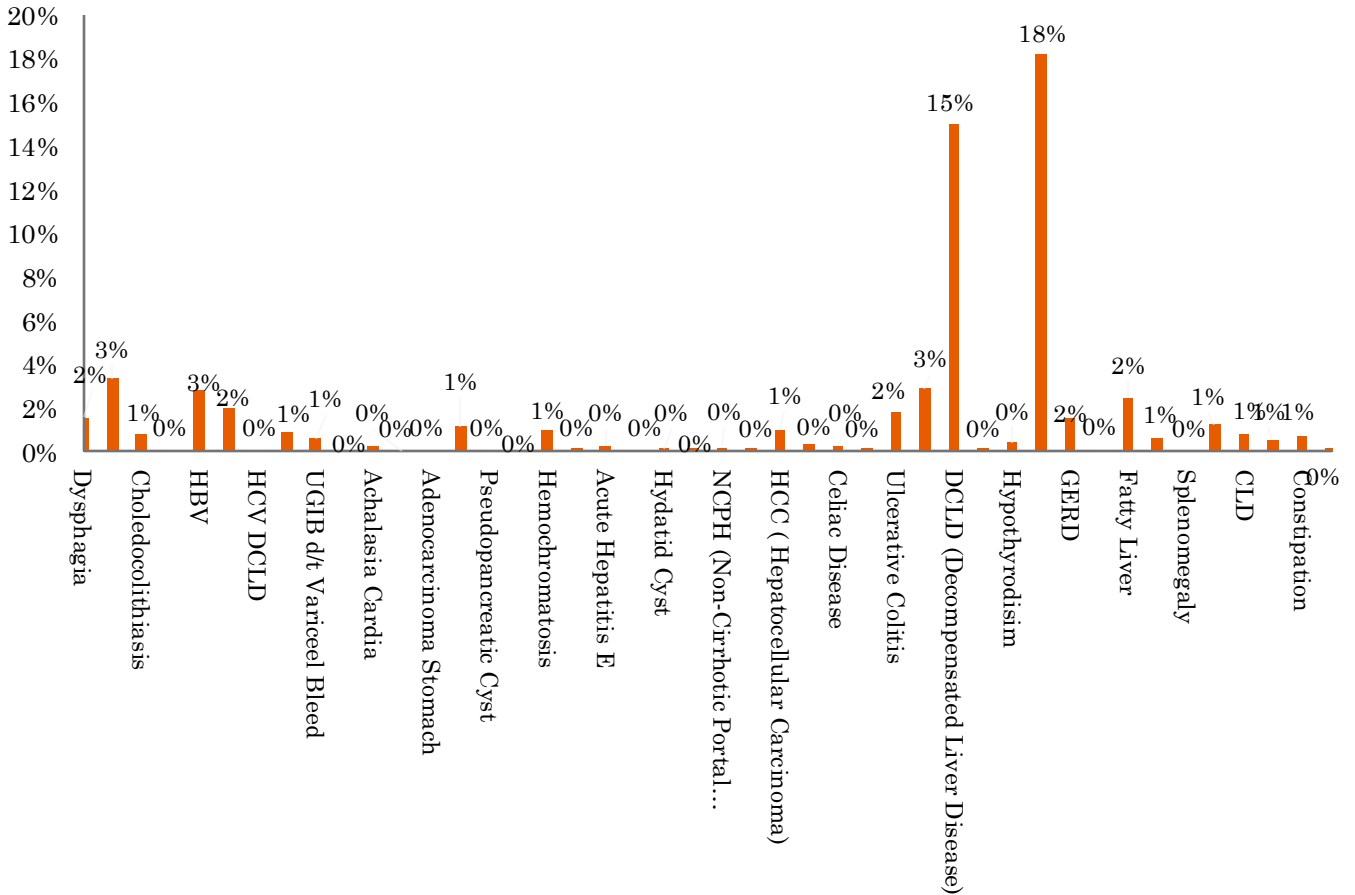
<b>Total No of Patients</b>	<b>1462</b>
<b>Male</b>	<b>695</b>
<b>Female</b>	<b>767</b>



# AGE WISE DISTRIBUTION



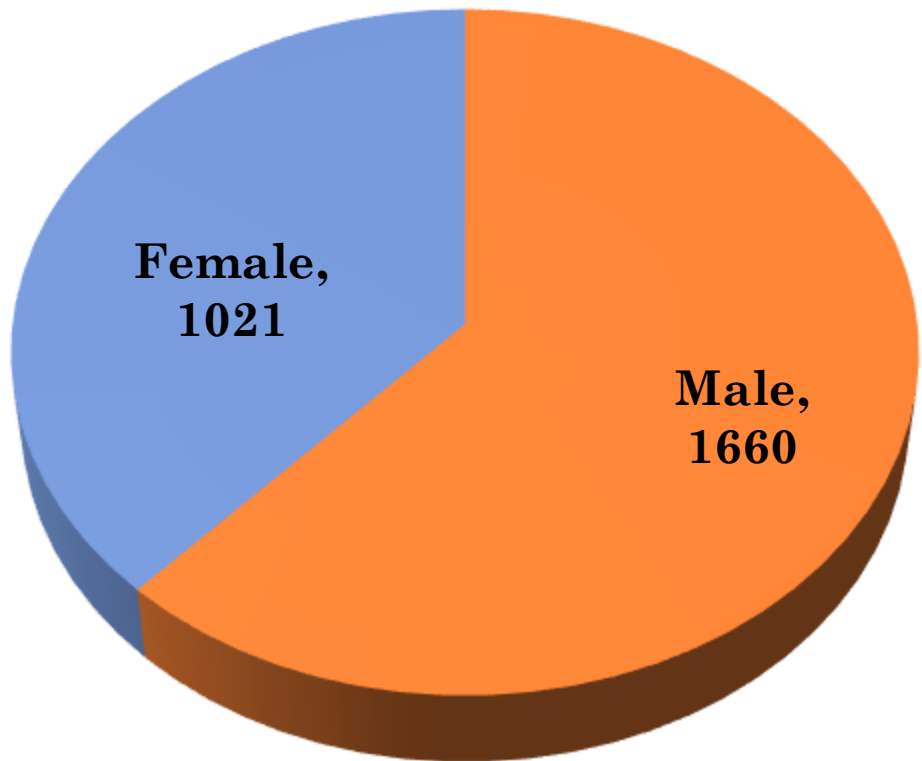
# DIAGNOSIS



**2021**

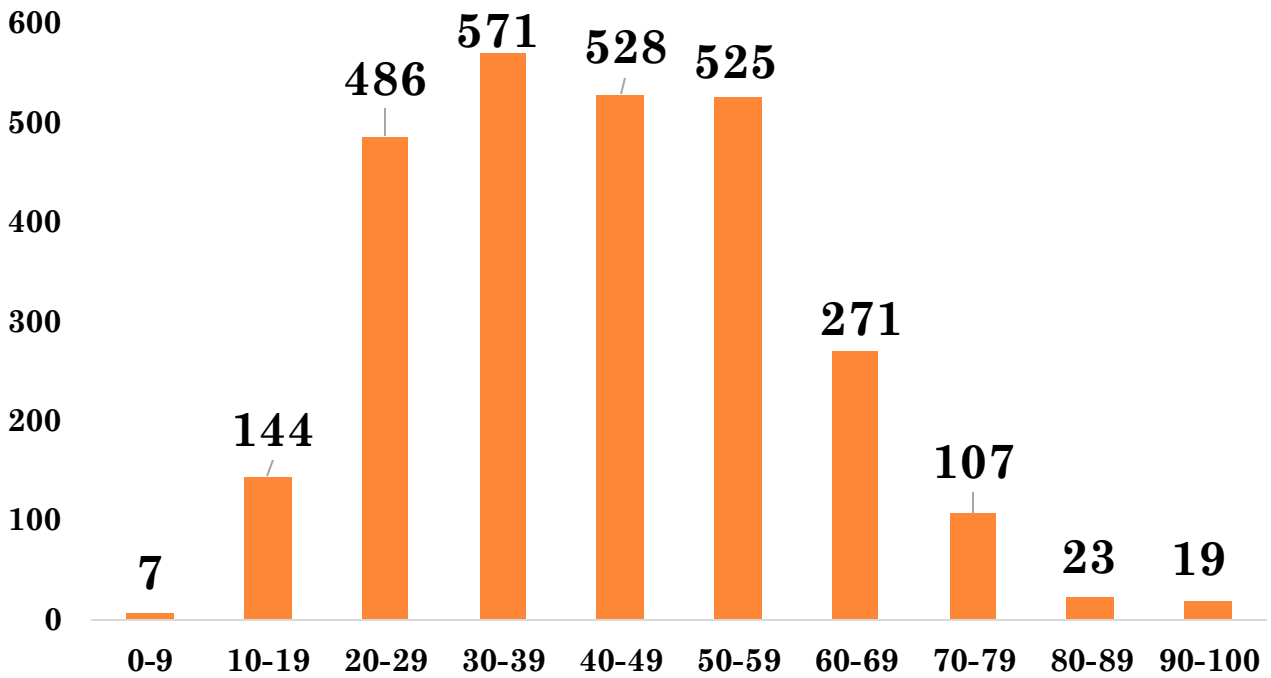
# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION

<b>Total No of Patients</b>	<b>2681</b>
<b>Male</b>	<b>1660</b>
<b>Female</b>	<b>1021</b>

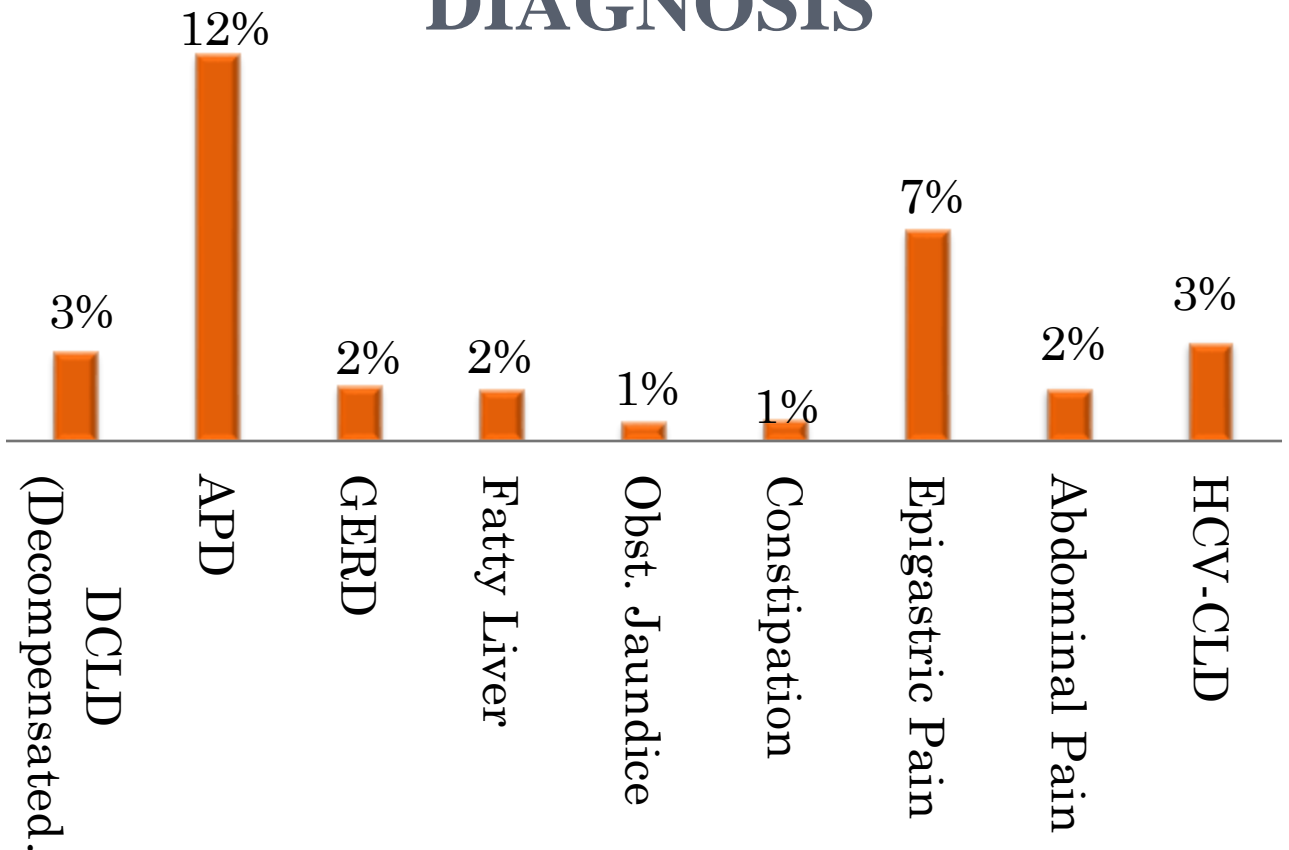




# AGE WISE DISTRIBUTION



# DIAGNOSIS

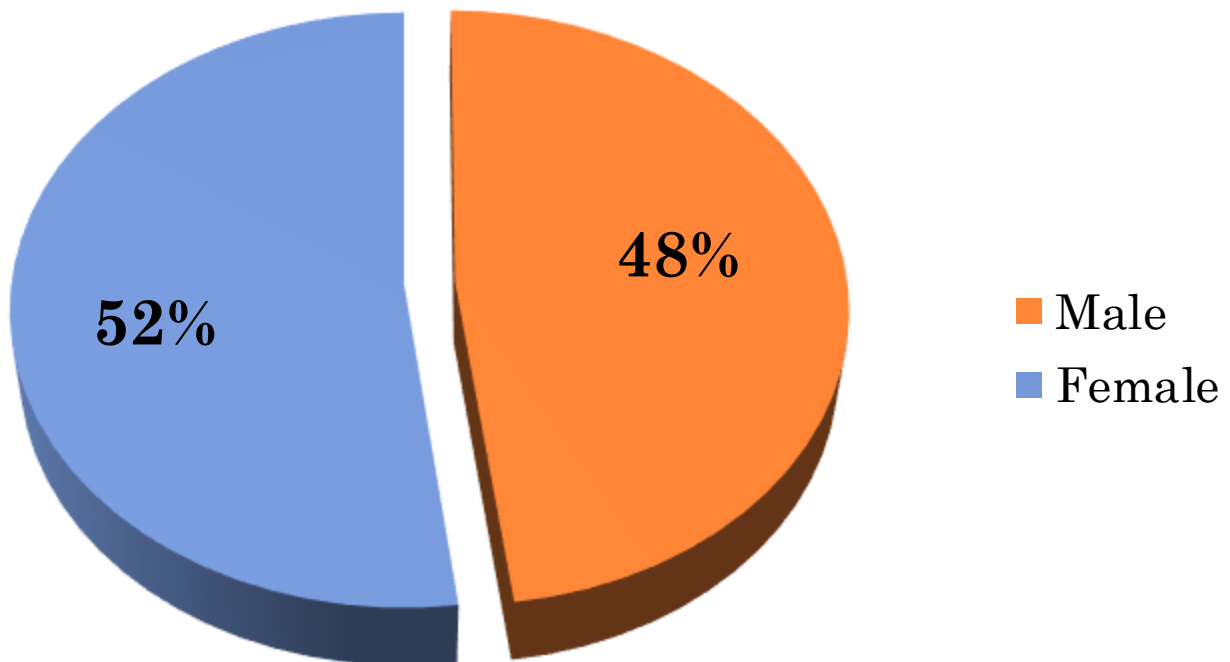


**2022**

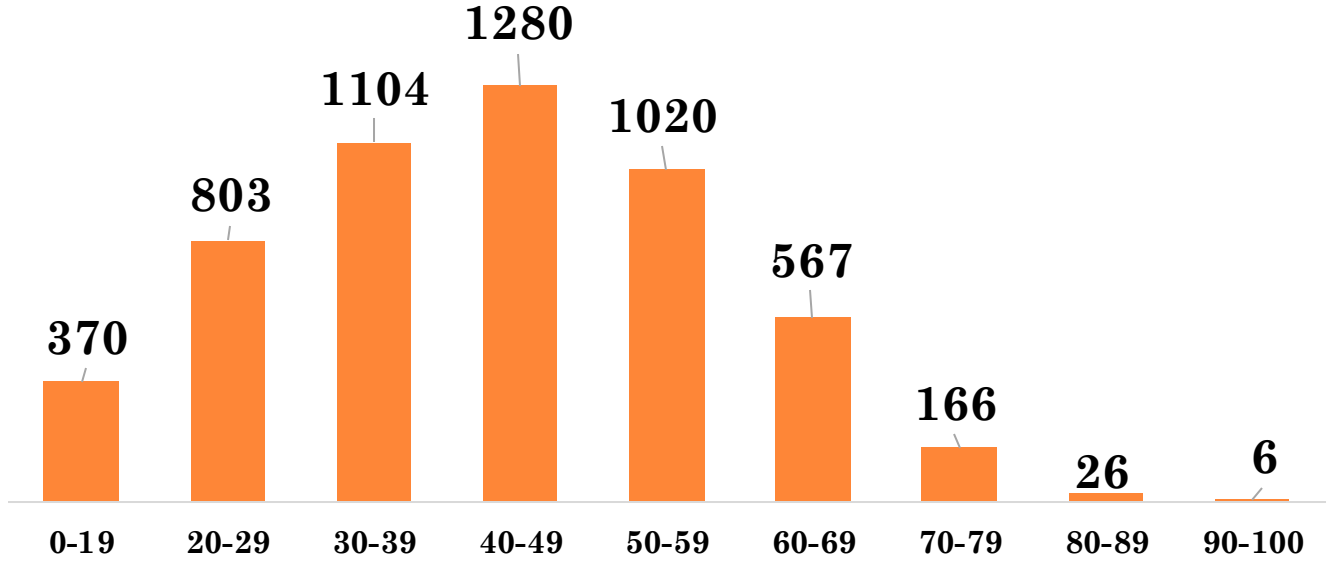
# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION.

<b>Total No of Patients</b>	<b>5342</b>
Male	2563
Female	2779

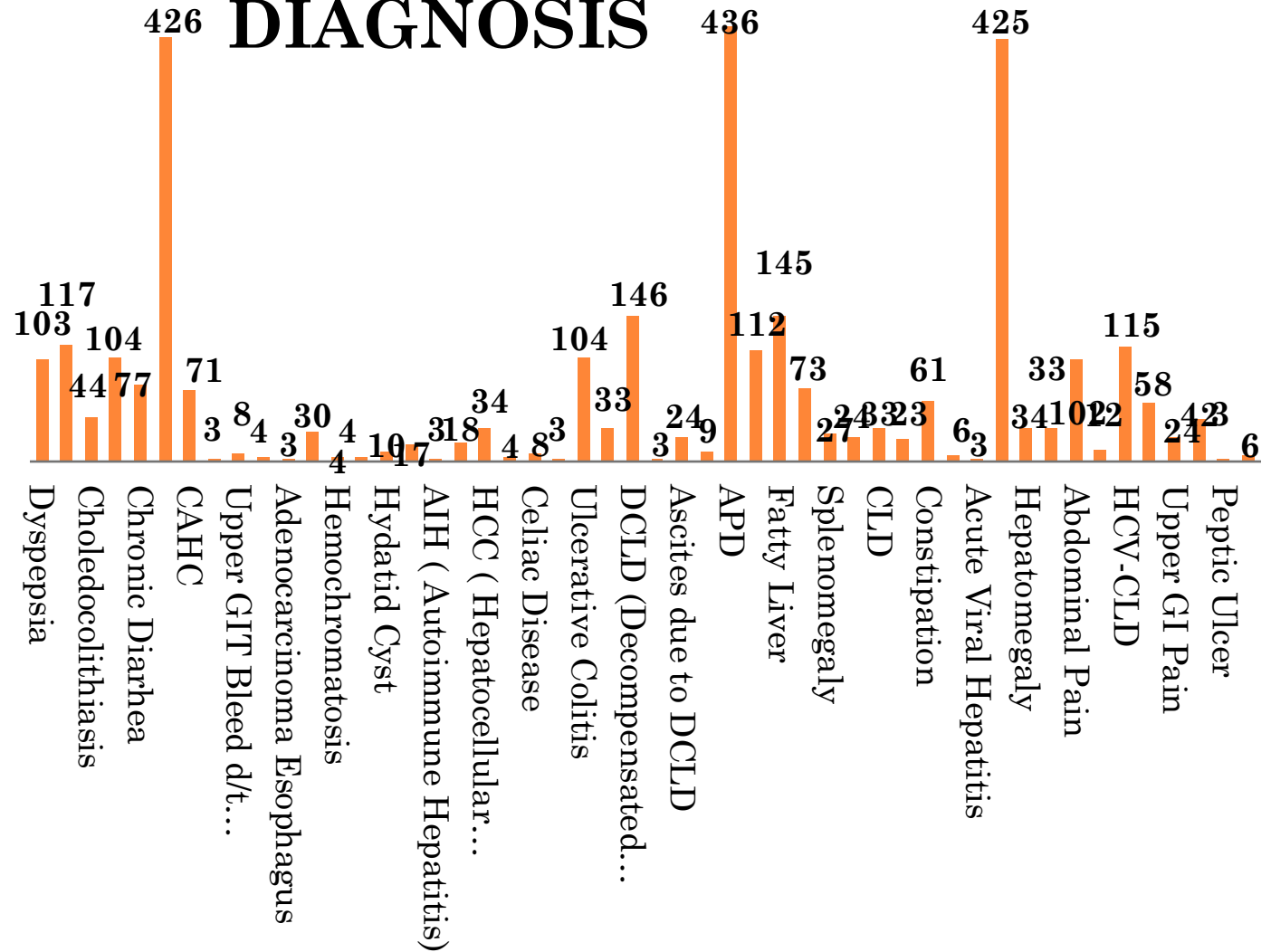
## Gender



# AGE WISE DISTRIBUTION



# DIAGNOSIS



# Liver Clinic Audit

Hepatitis clinic is the most organized and well established clinic, that has been serving even before the development of center for liver and digestive diseases. The dedicated clinic enroll all new cases of hepatitis C and B patients and continued the services with same zeal and fervor even during the COVID era, hence the numbers remain the same with an average enrolment of about 1000 new cases a year. Maintain their data and follow-up. Provide them the free medications through Punjab Hepatitis Prevention program of Government of Pakistan. The clinic also provides vaccination services to the patients and their families.

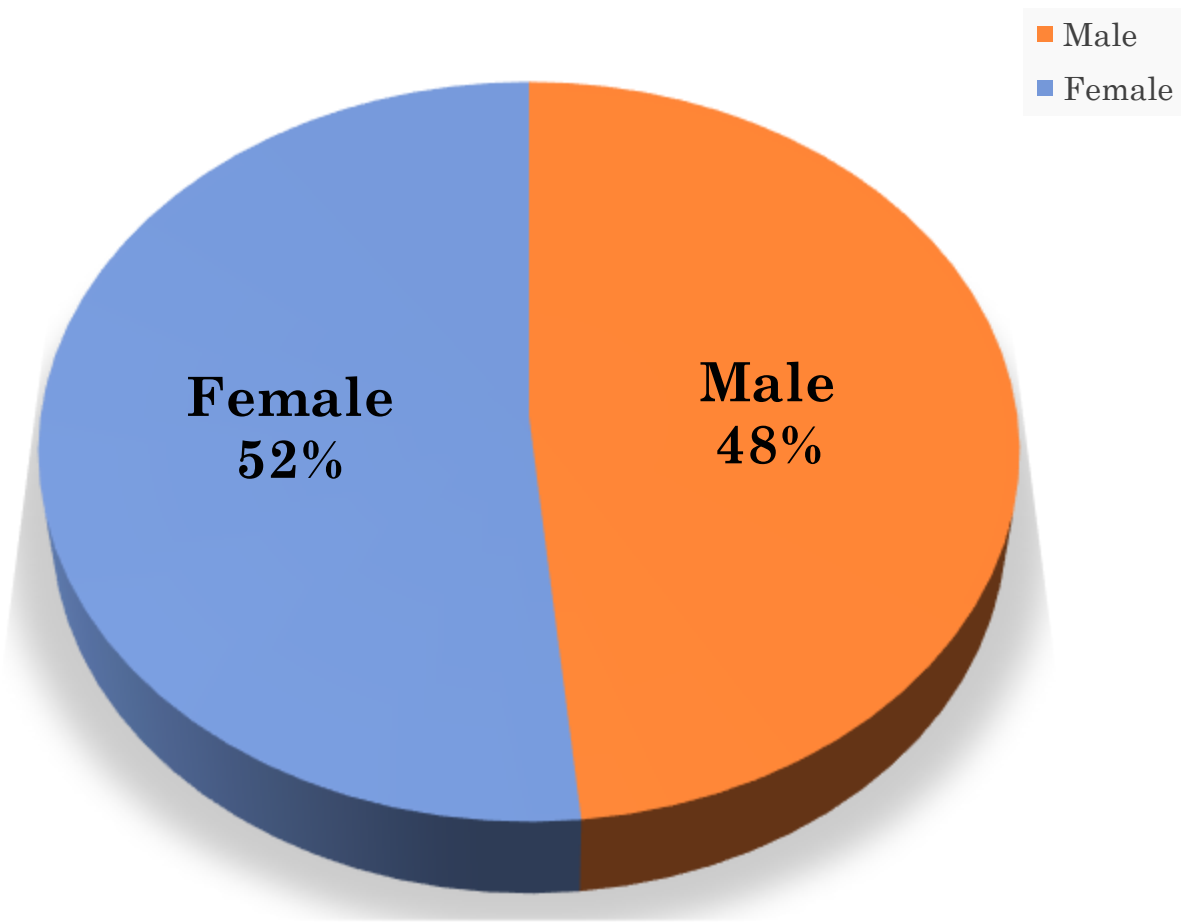


**2020**

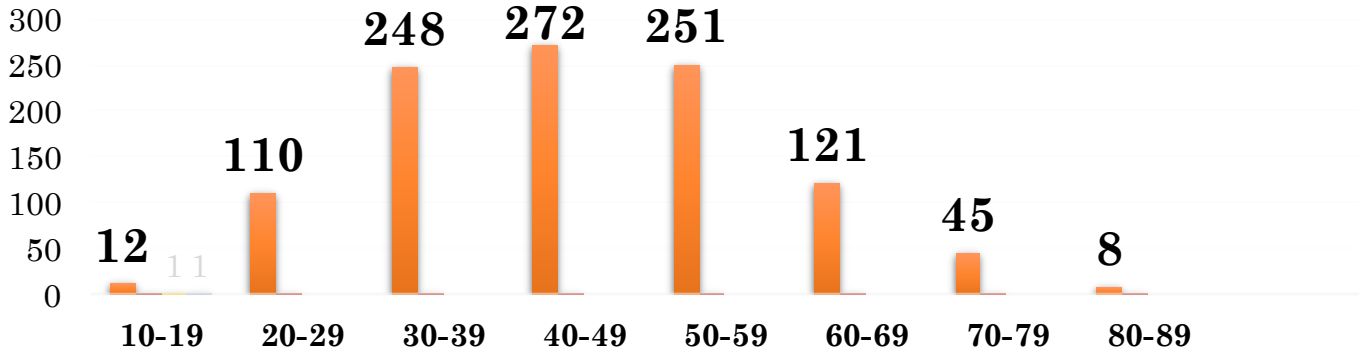
# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION

<b>Total No of Patients</b>	<b>1067</b>
Male	517
Female	550

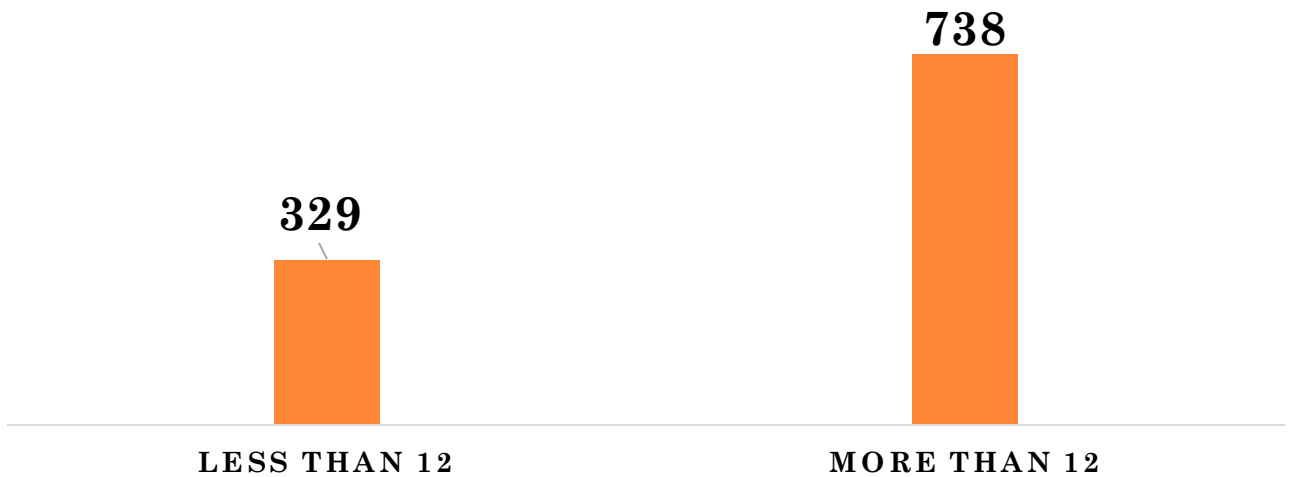
## GENDER



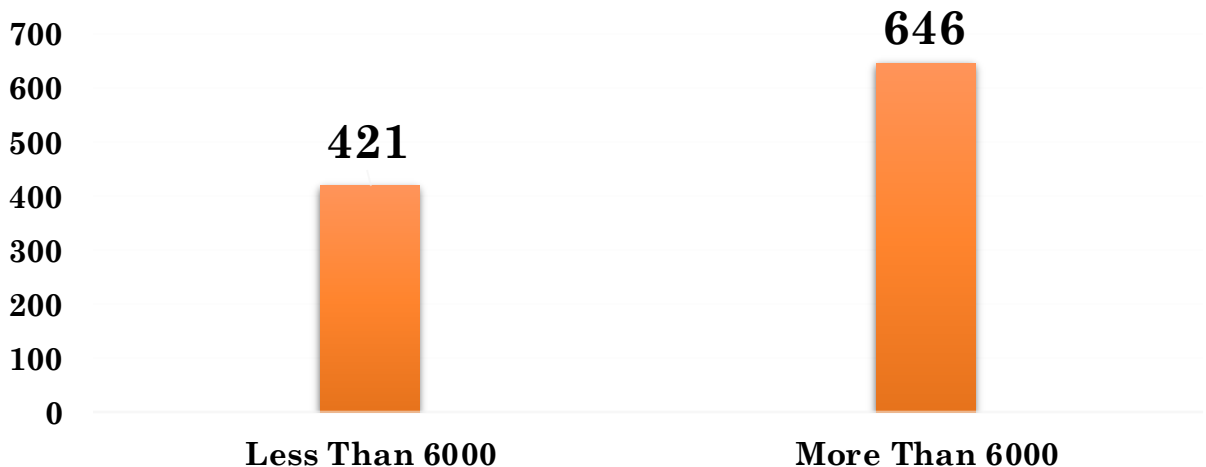
# AGE WISE DISTRIBUTION



# HEMOGLOBIN

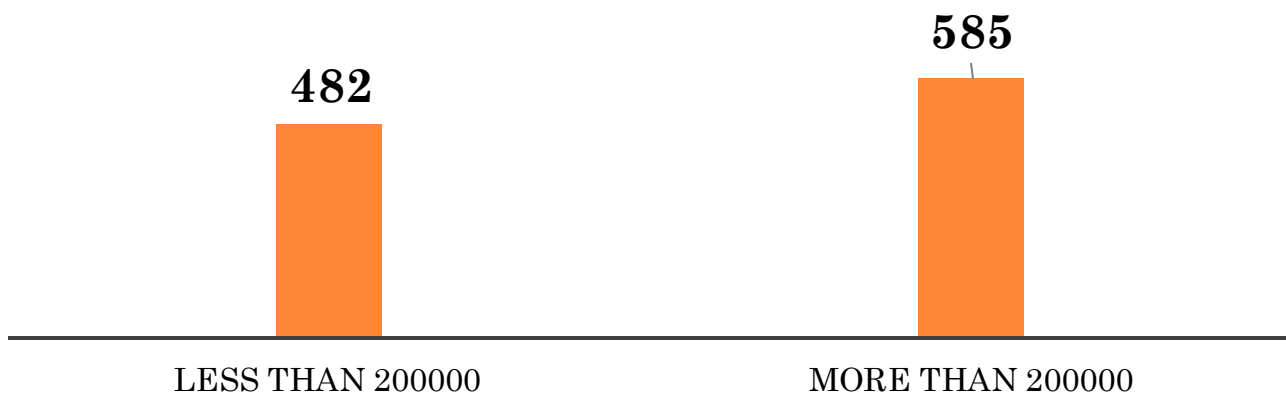


# TLC

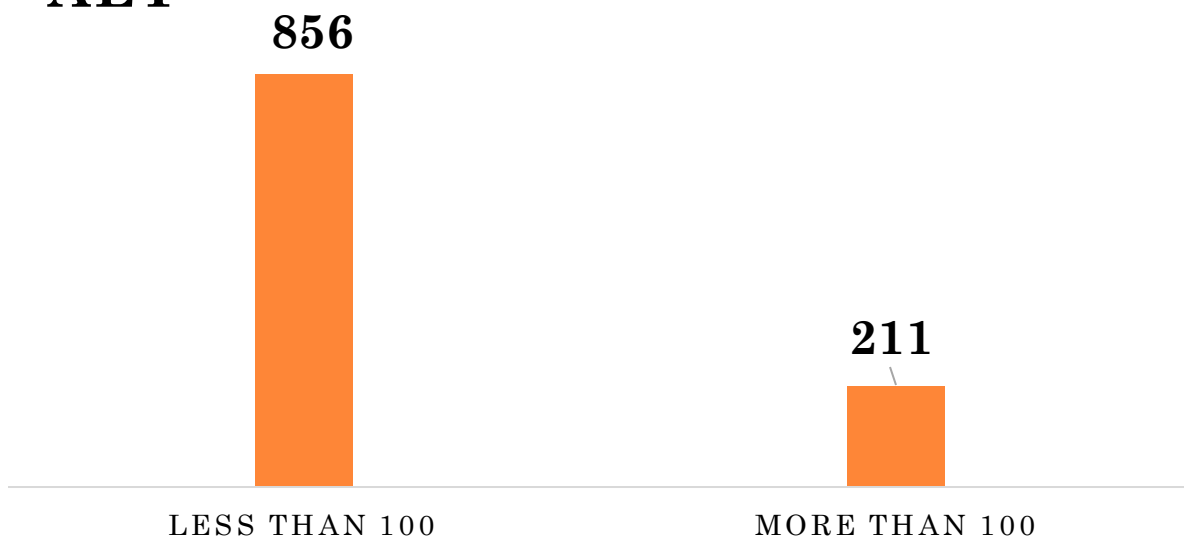




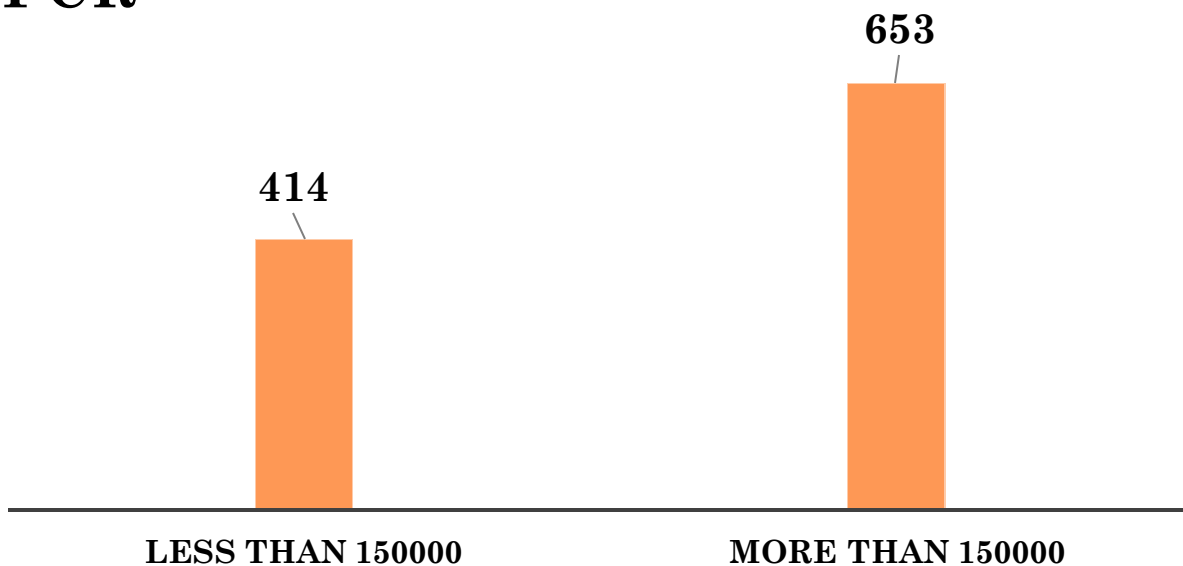
# PLATELETS



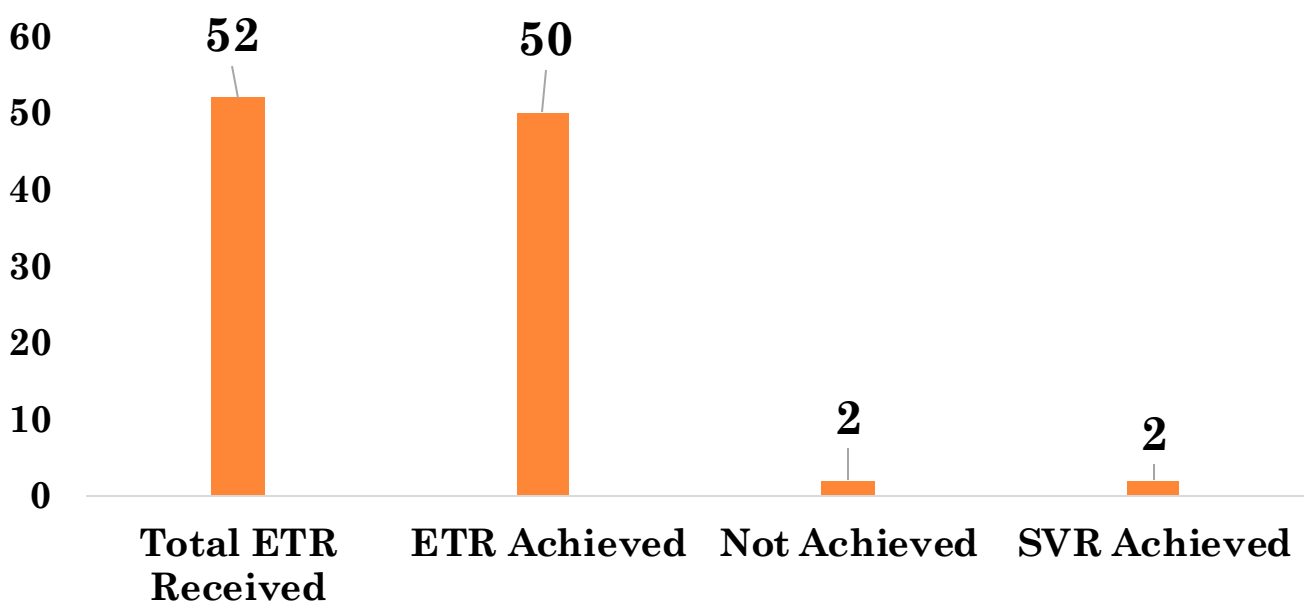
# ALT



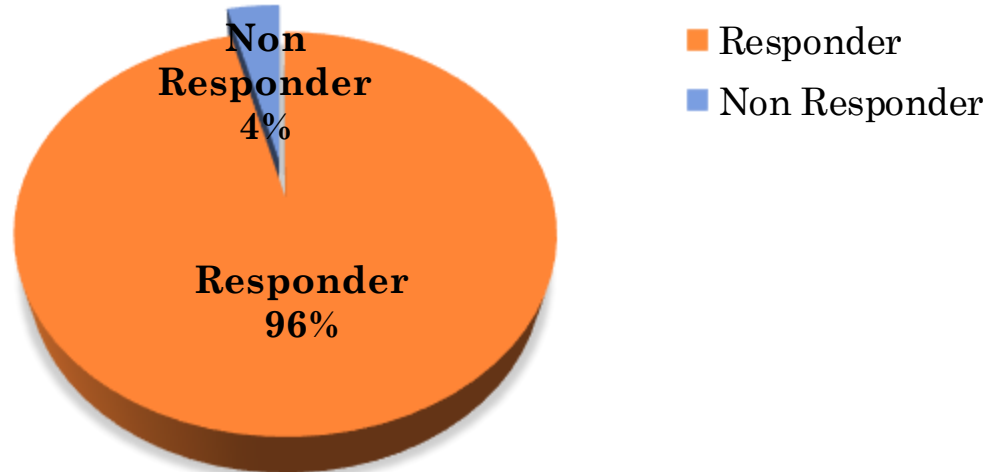
# PCR



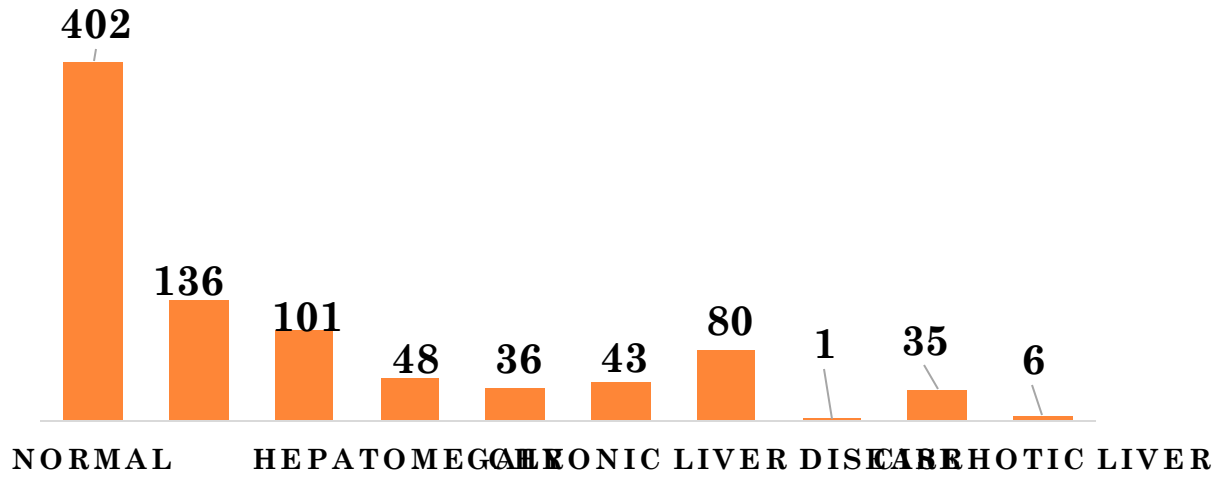
# ETR ACHIEVED, NOT ACHIEVED



# Responder, Non Responder



# USG

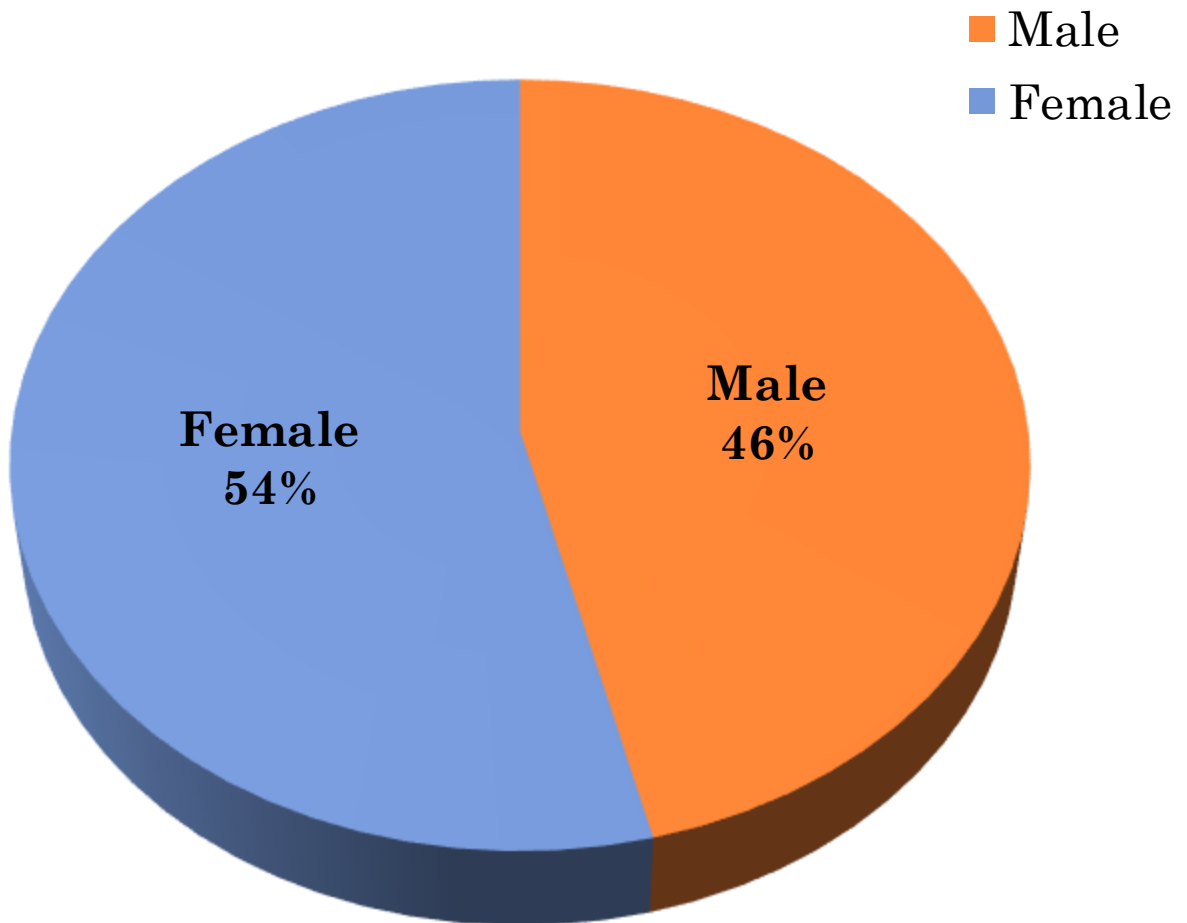


**2021**

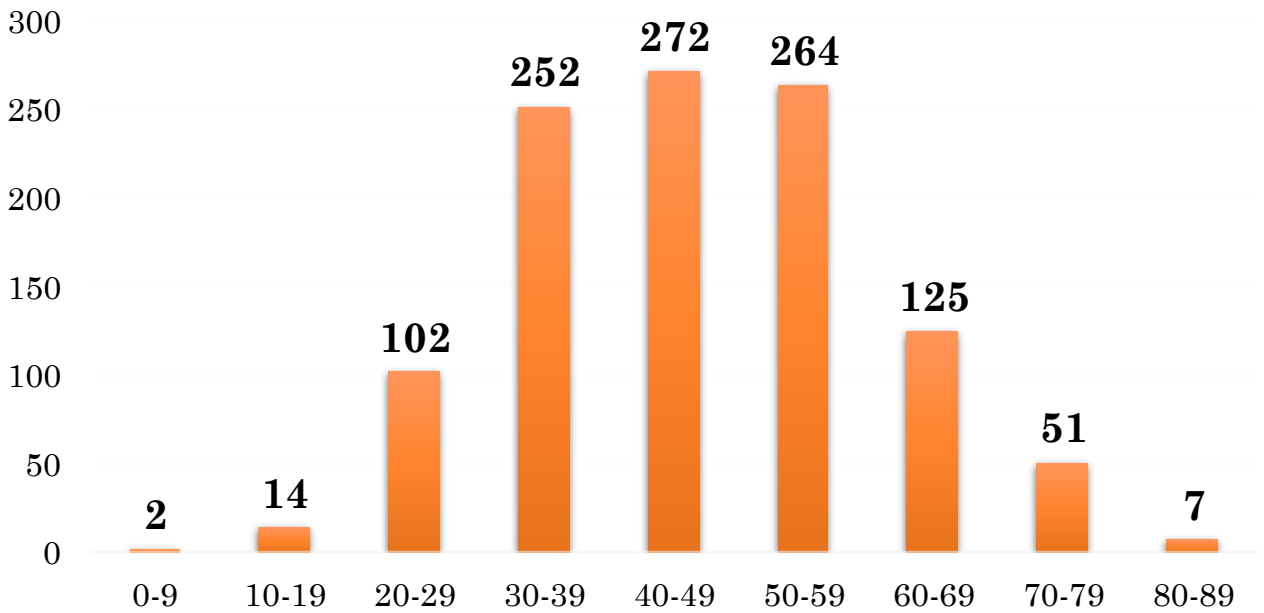
# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION

<b>Total No of Patients</b>	<b>1089</b>
Male	505
Female	584

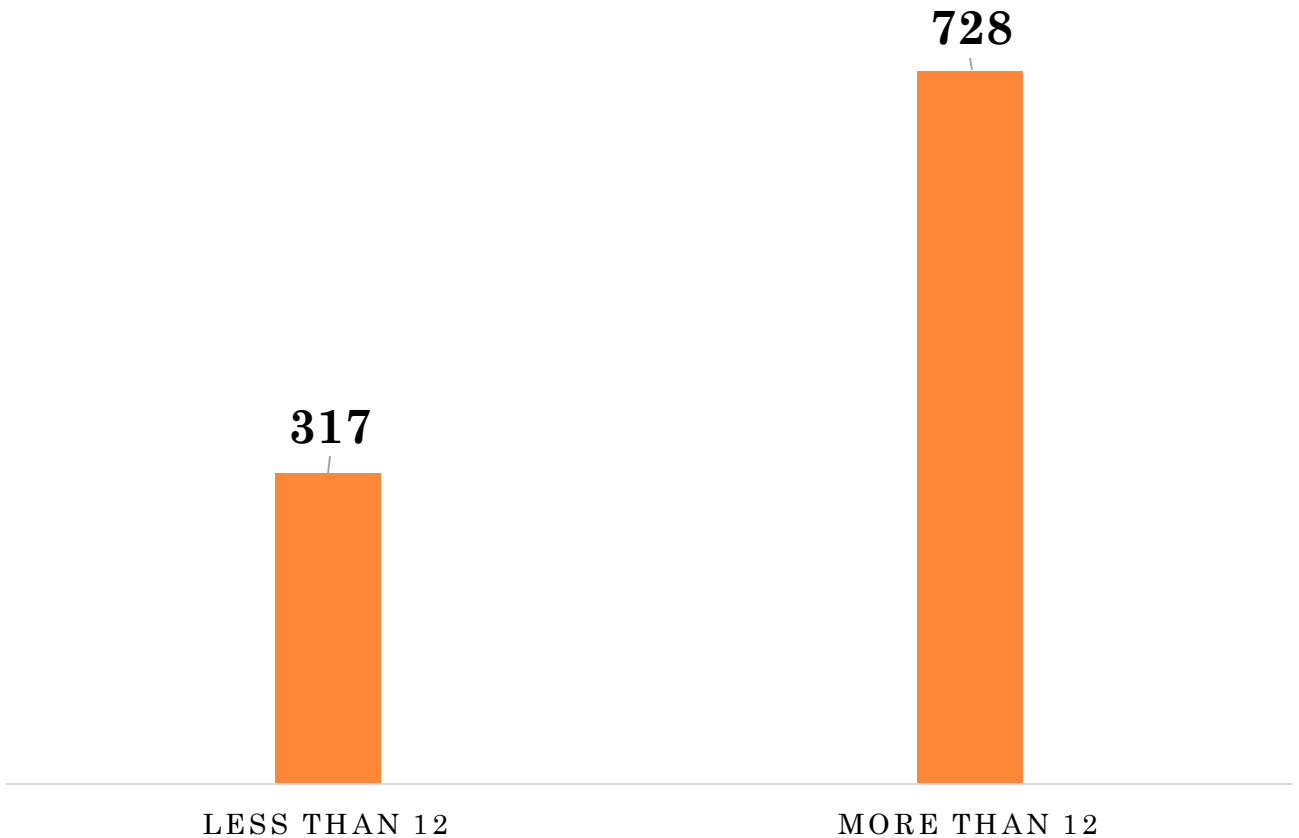
## GENDER



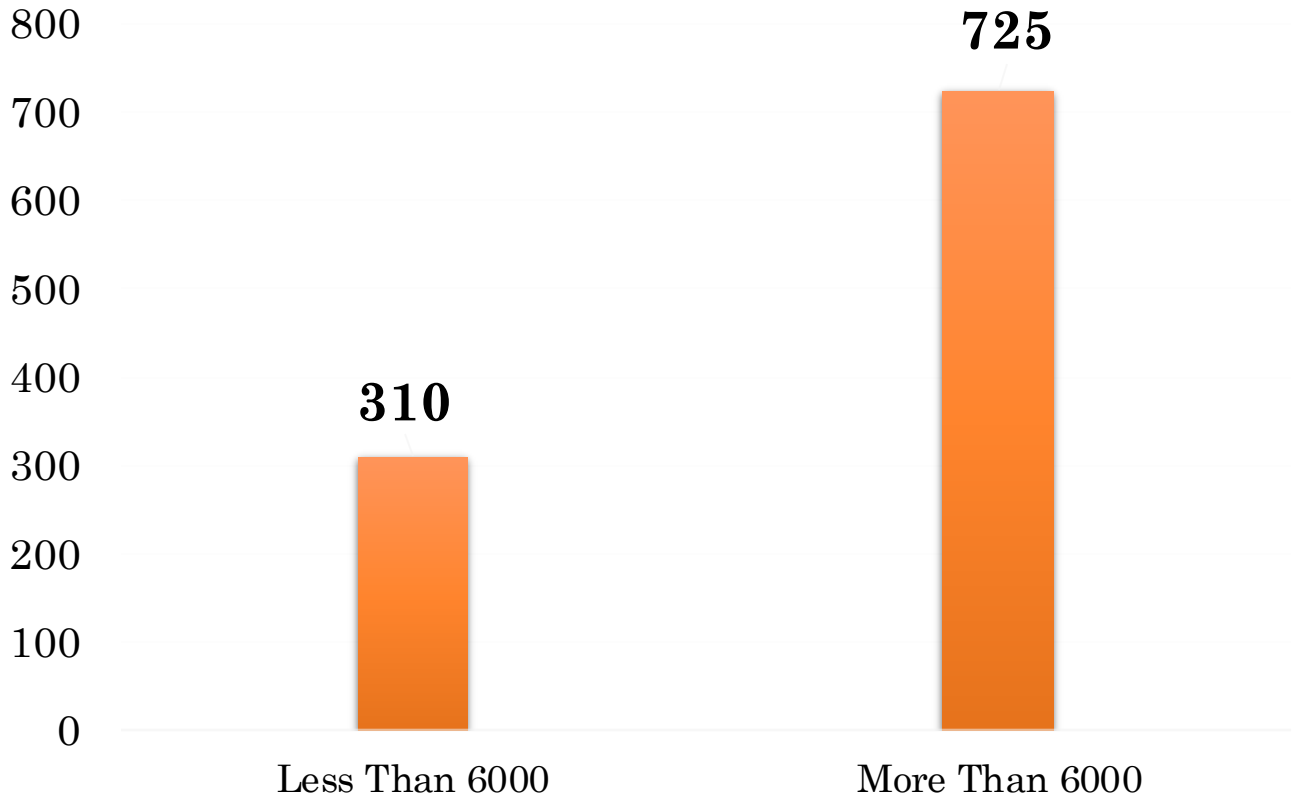
# AGE WISE DISTRIBUTION



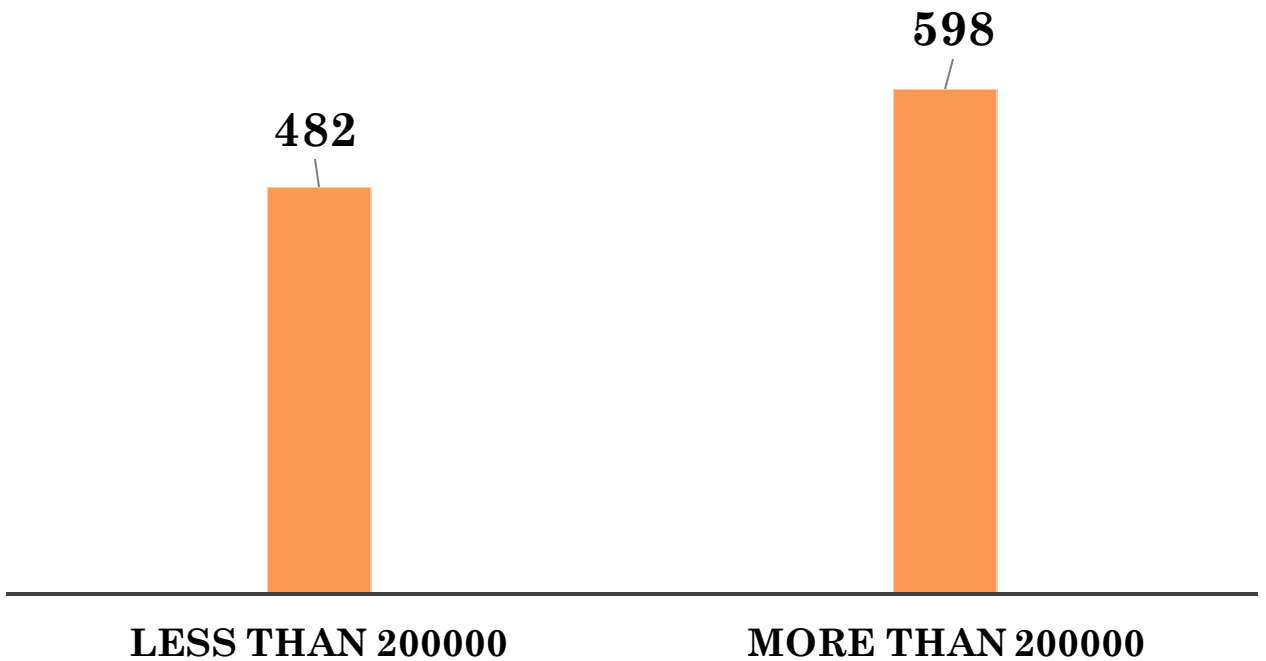
## HEMOGLOBIN



# TLC

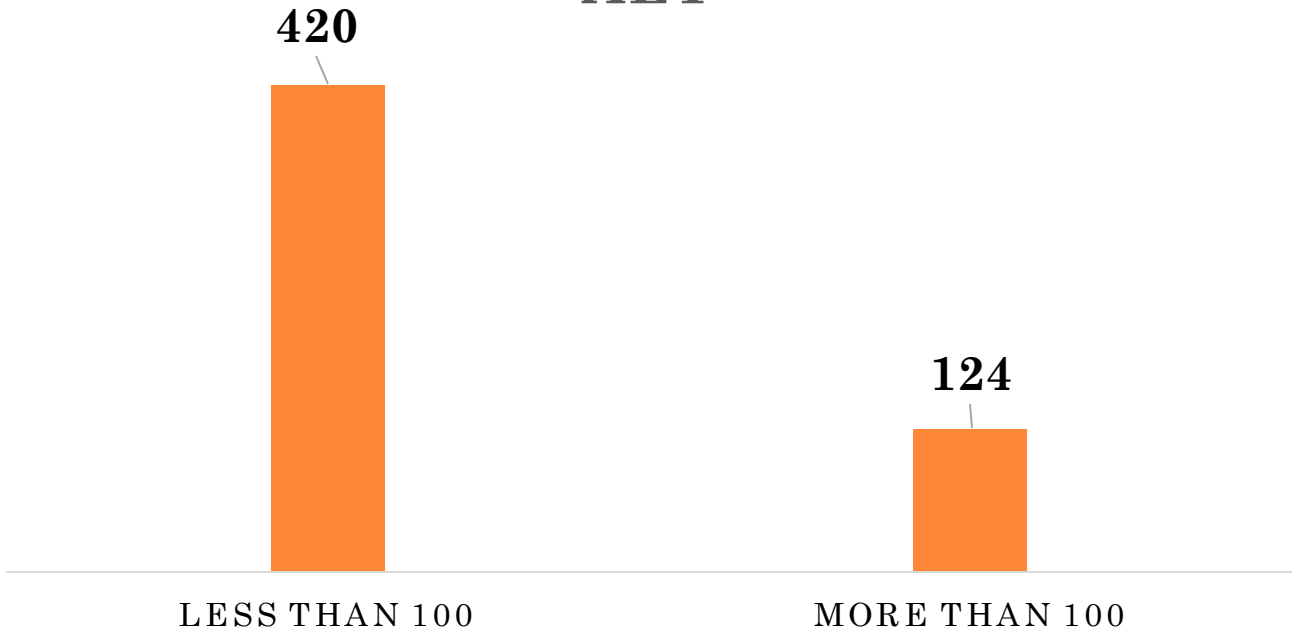


# Platelets

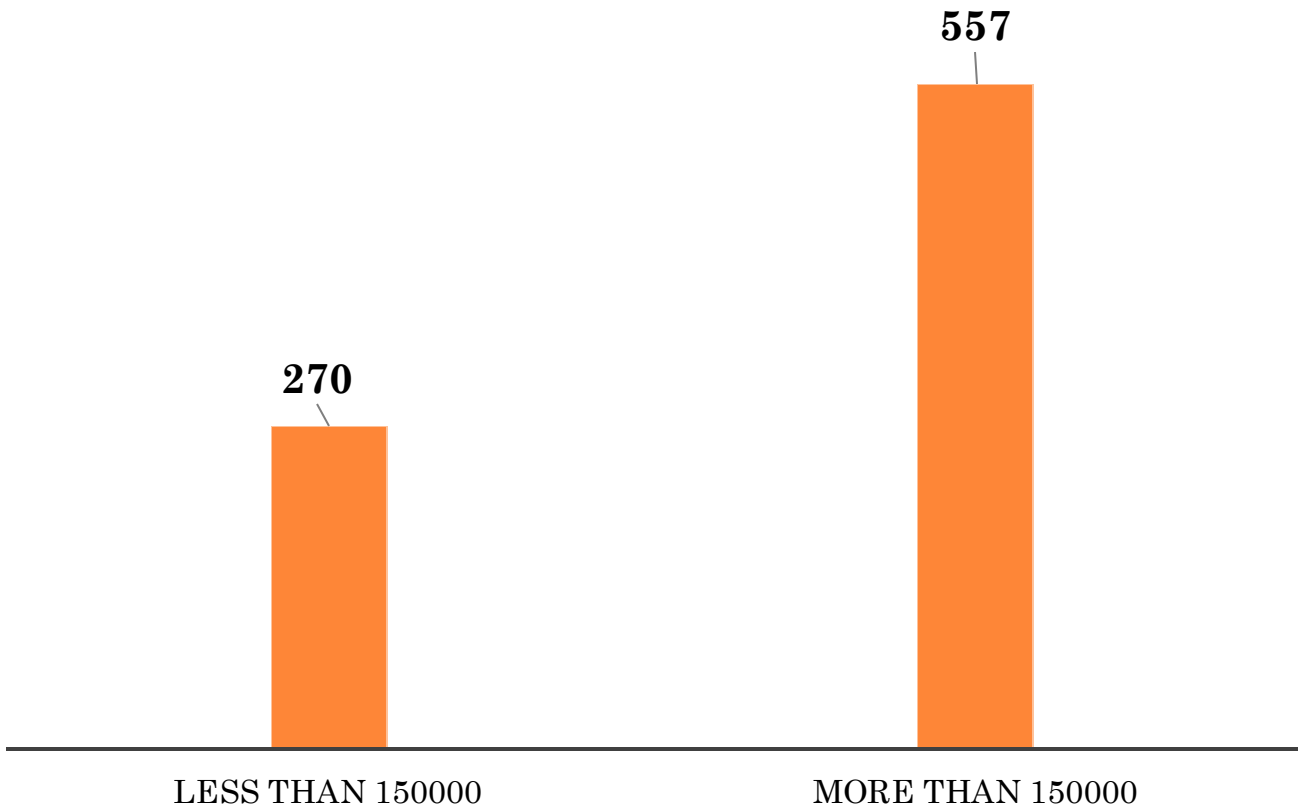


# ALT

## ALT

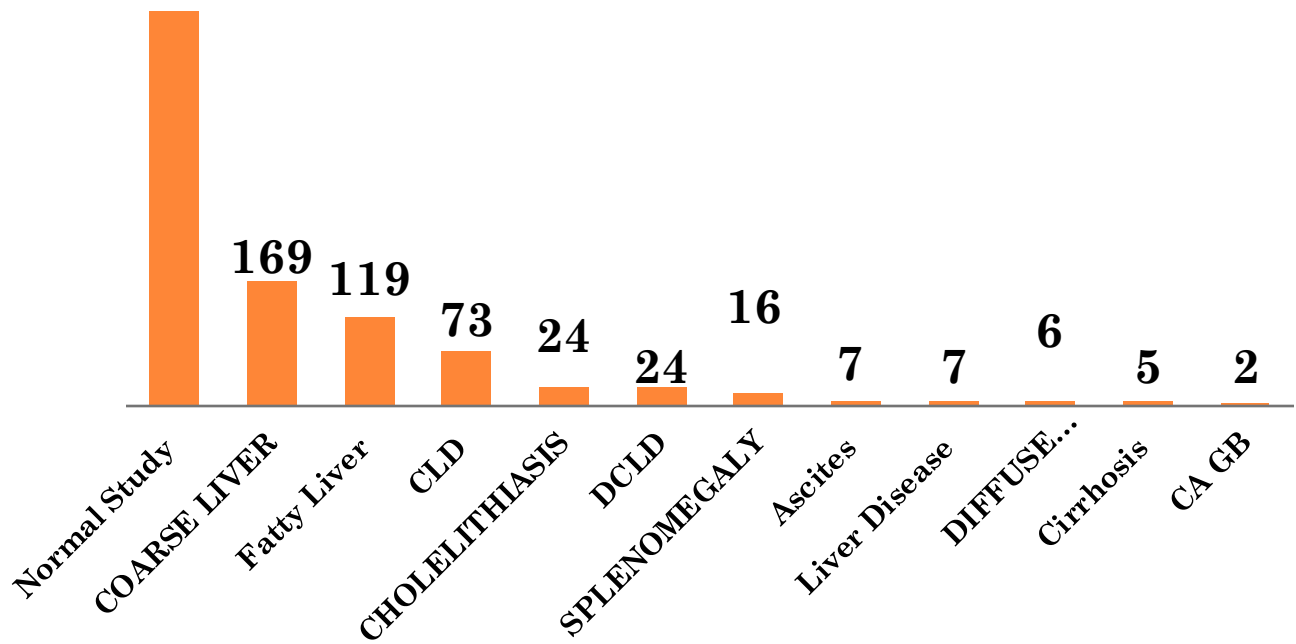


# PCR

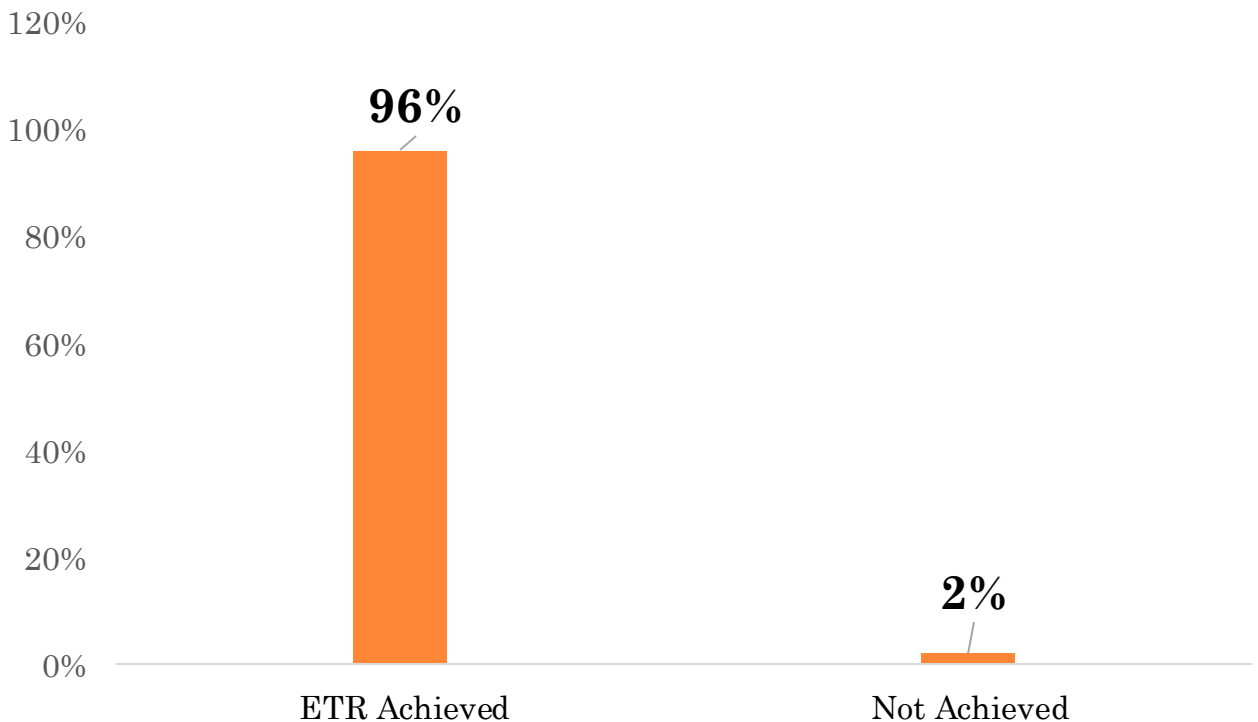


# USG

532



END OF TREATMENT RESPONSE (ETR)  
NO OF PATIENTS WITH PCR AT END OF  
TREATMENT = 45

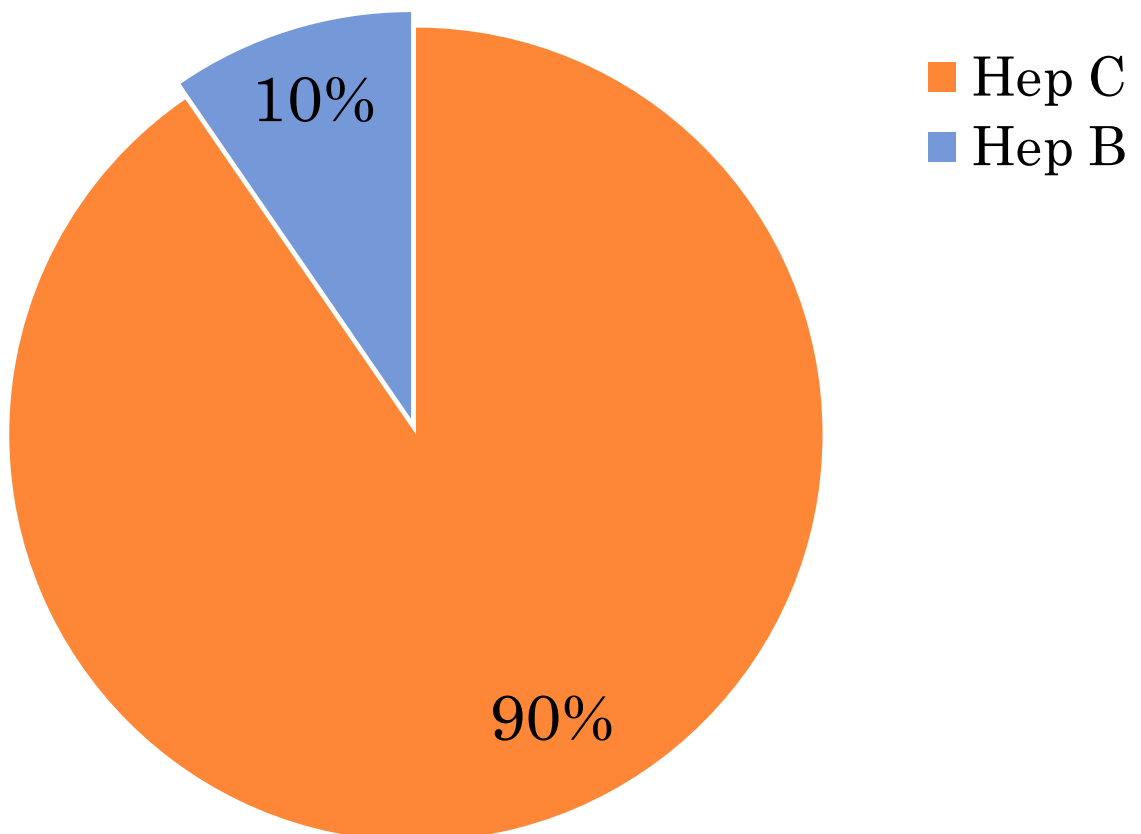




**2022**

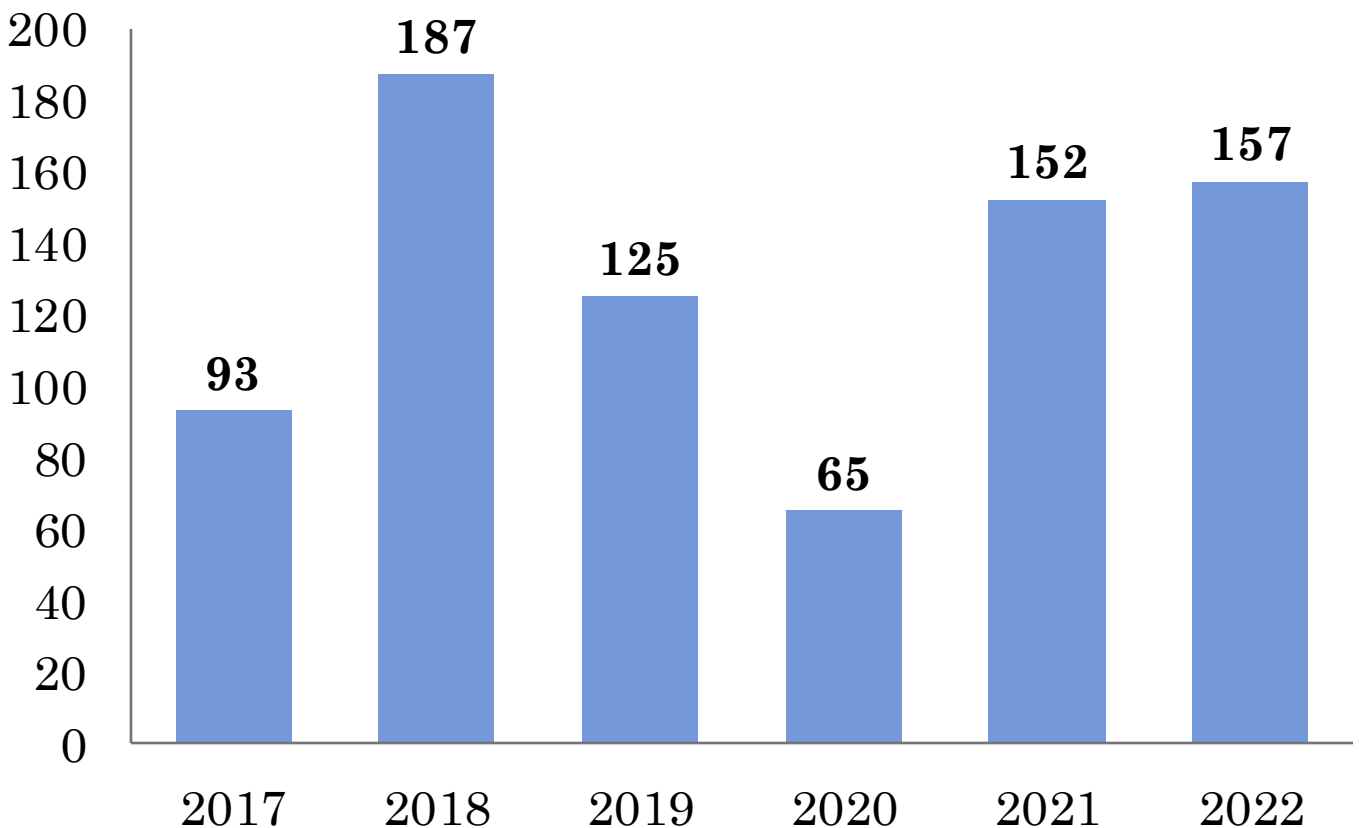
# TOTAL NUMBER OF PATIENTS WITH DISTRIBUTION.

Total No of Patients	1115
Hepatitis C	1008
Hepatitis B	107



# HCC Clinic Audit

Pakistan being the most prevalent country for Hep C therefore the incidence of HCC is remarkably high and with better availability and easy access to radiological mortalities more and more HCC cause are being reported. HFH has its own CT Scan and MRI facilities. Center for liver and diagnostic disease also has the facility of RFA. A dedicated HCC clinic entertains the patients on every Friday. After formal enrollment and data entry each case is individually discussed in MDM meeting to decide for the best therapeutic modality. Most of the patients are diagnosed late with a BCLC stage C and are thus offered systemic chemotherapy. Our center is also offering RFA for stage appropriate cases.

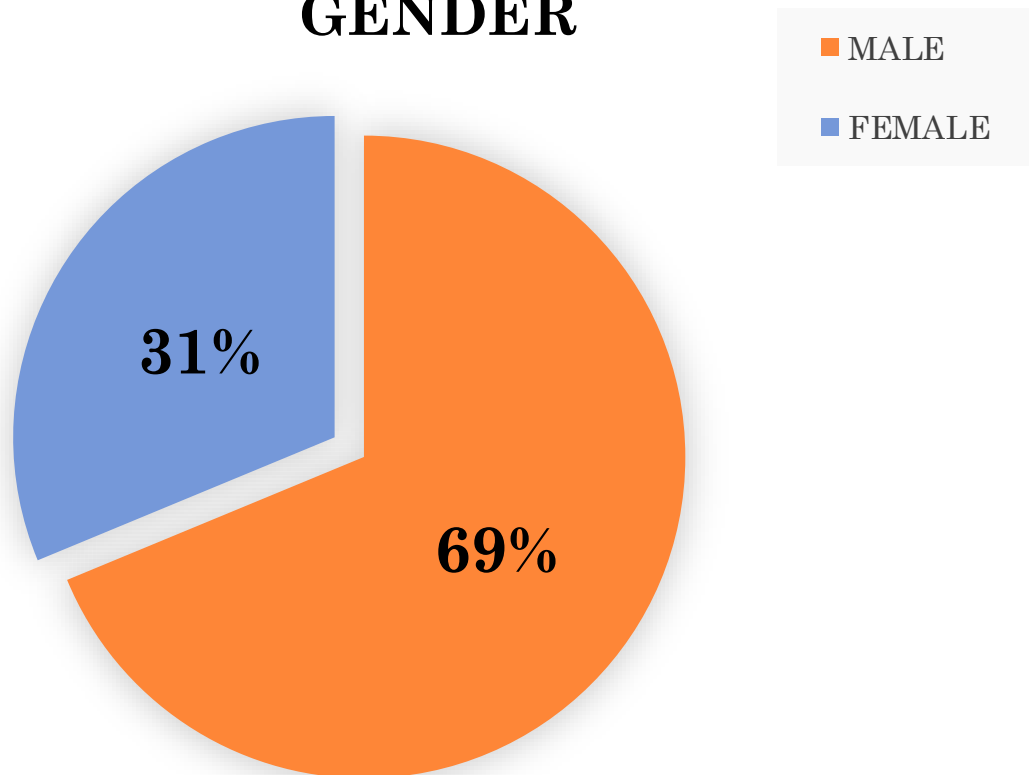


**2020**

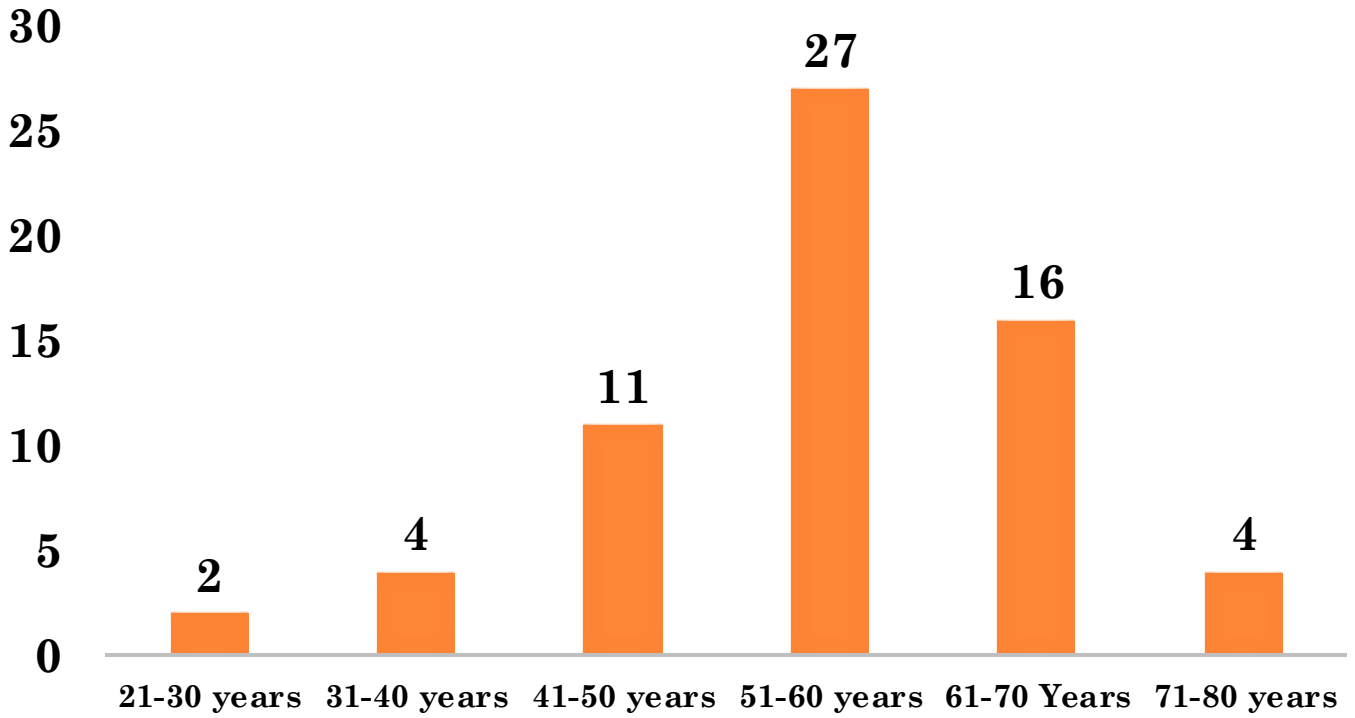
# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION

TOTAL NO OF PATIENTS	64
MALE	44
FEMALE	20

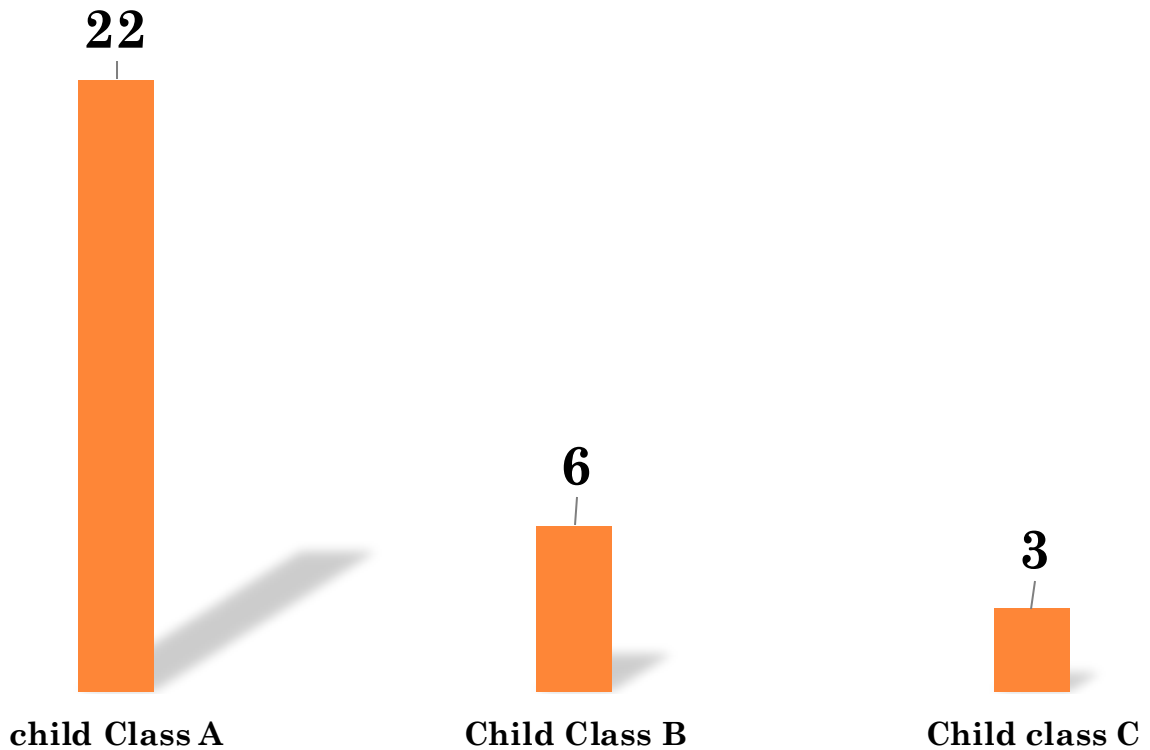
## GENDER



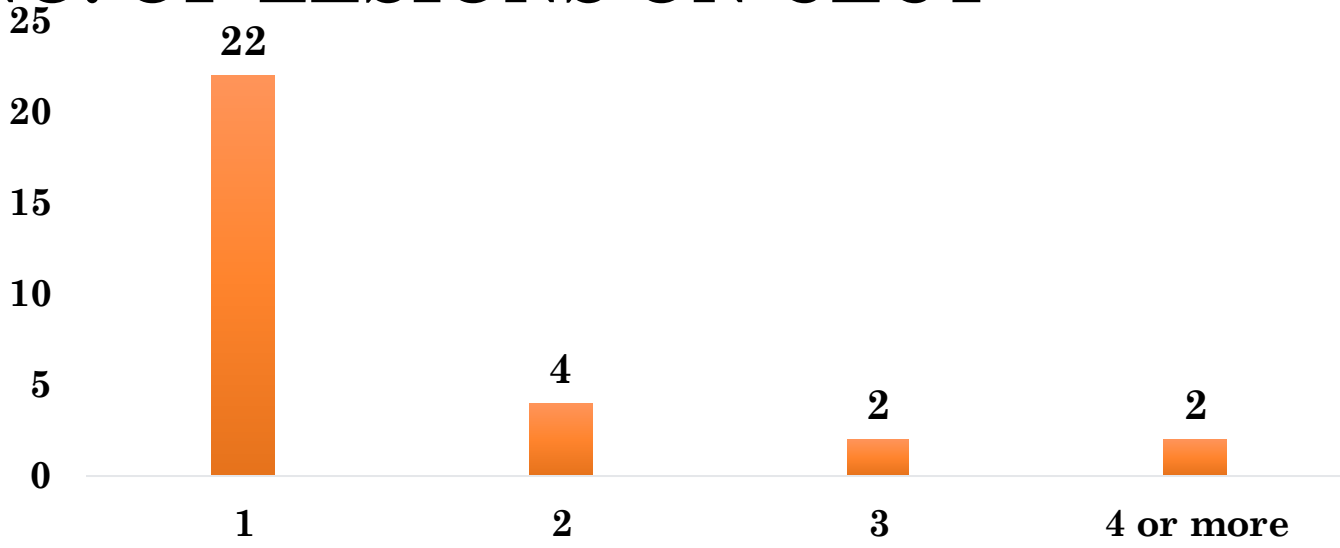
# AGE WISE DISTRIBUTION



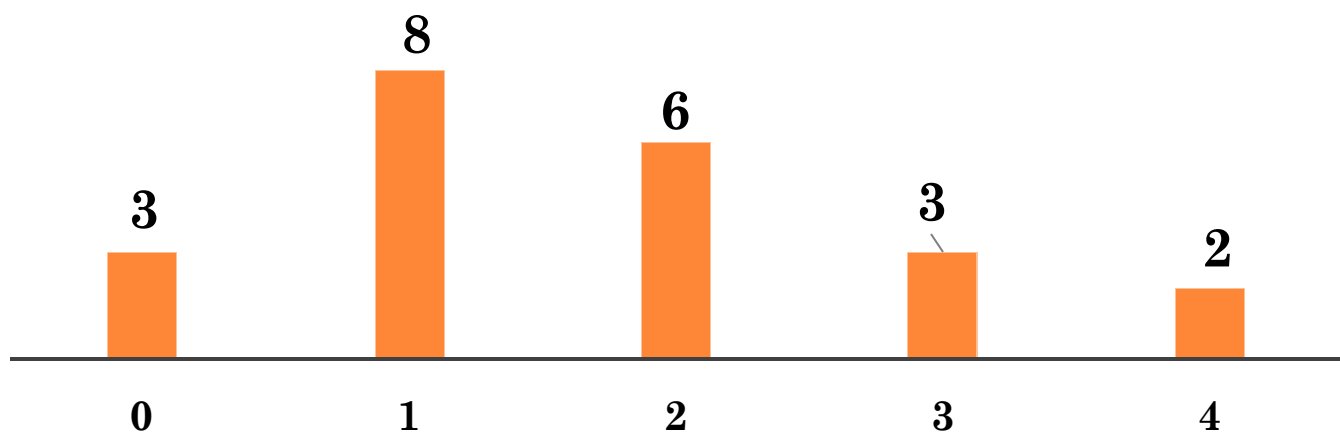
## CHILD TURCUTTE CLASS



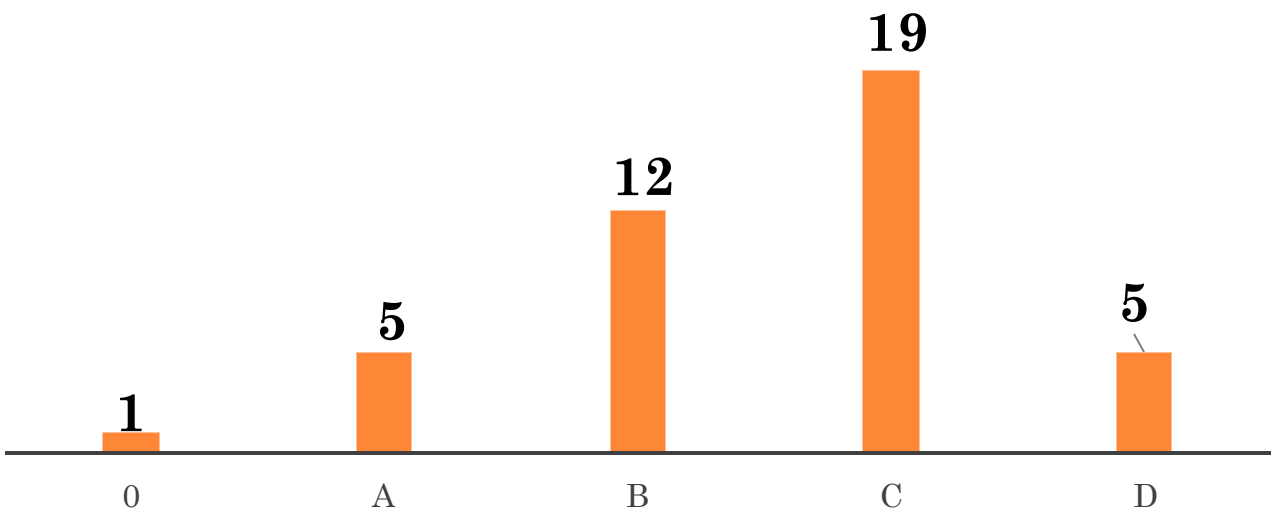
# NO. OF LESIONS ON CECT



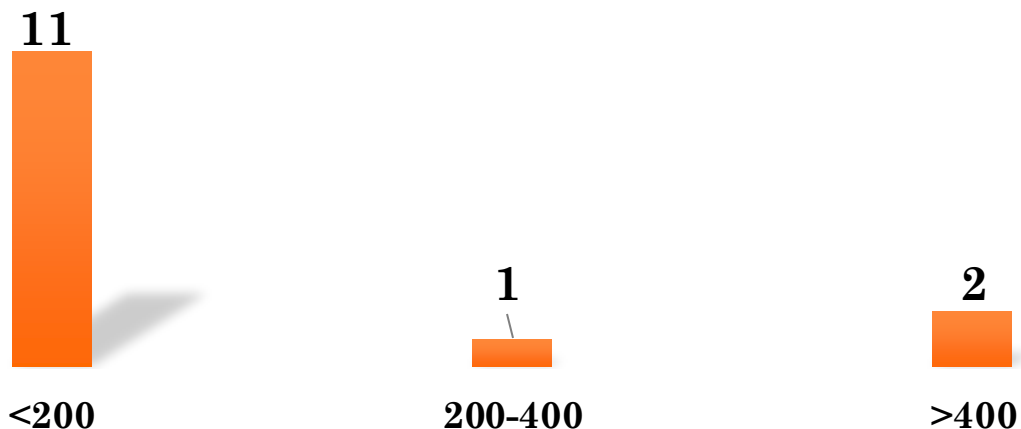
# PST (ECOG)



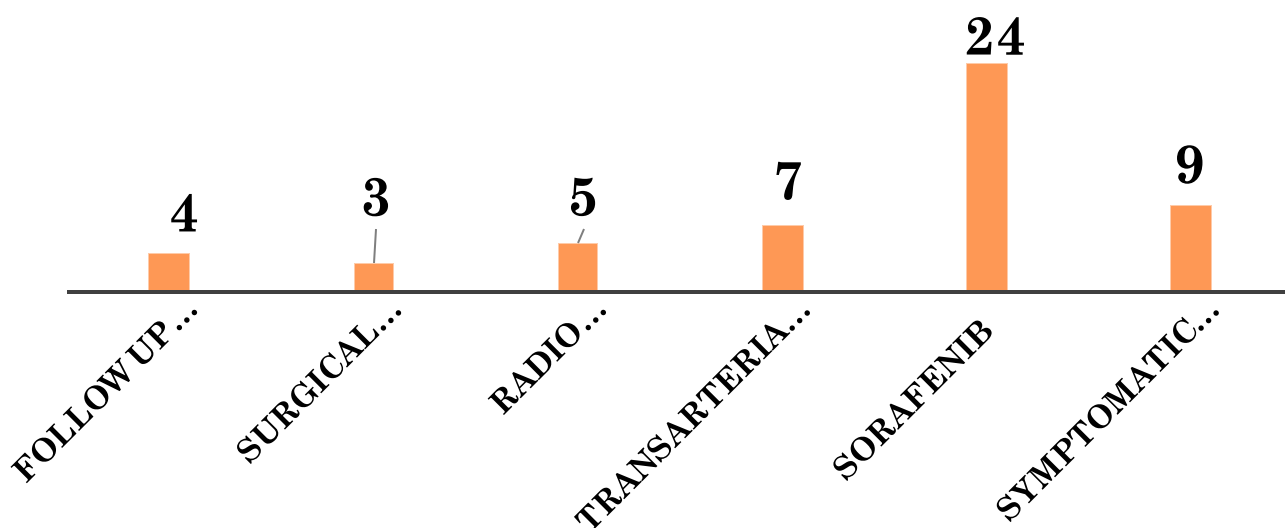
# BARCELONA CLINIC FOR LIVER CANCER



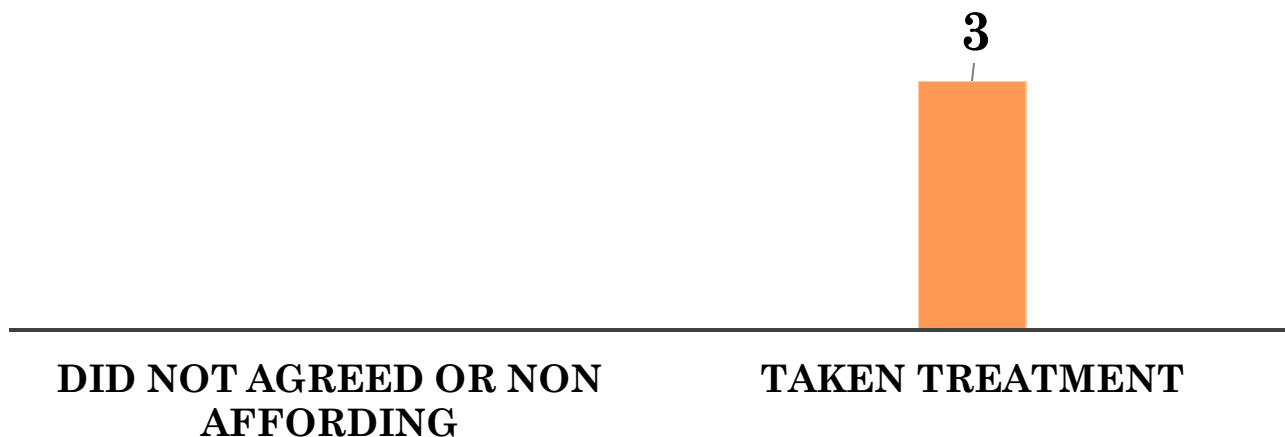
# ALPHA FETO PROTEINS



# TREATMENT OFFERED



# TREATMENT TAKEN OR NOT

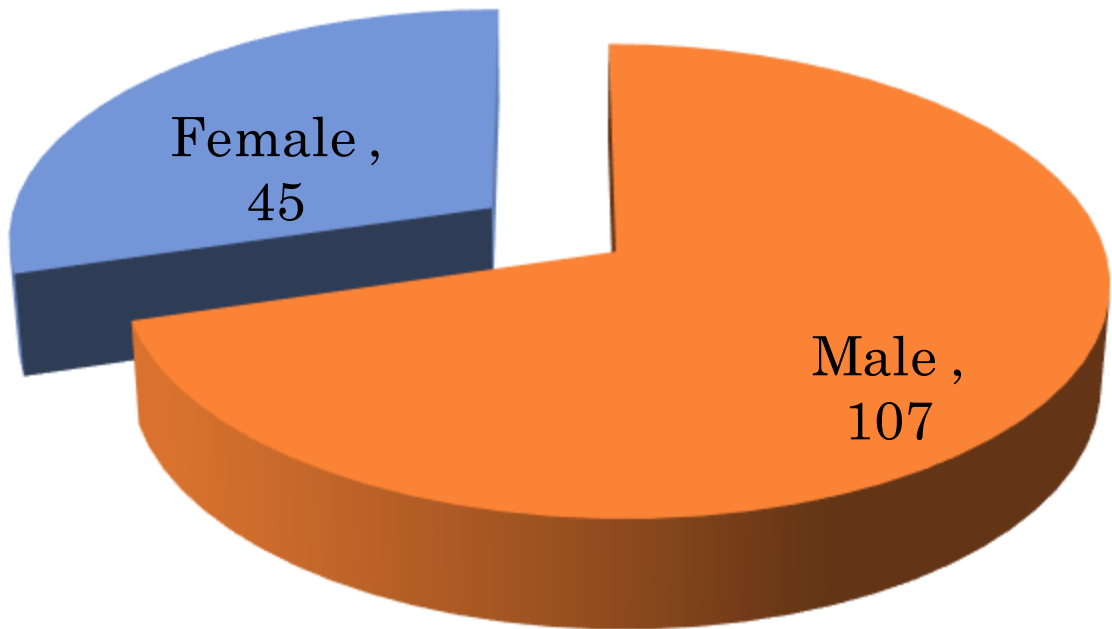




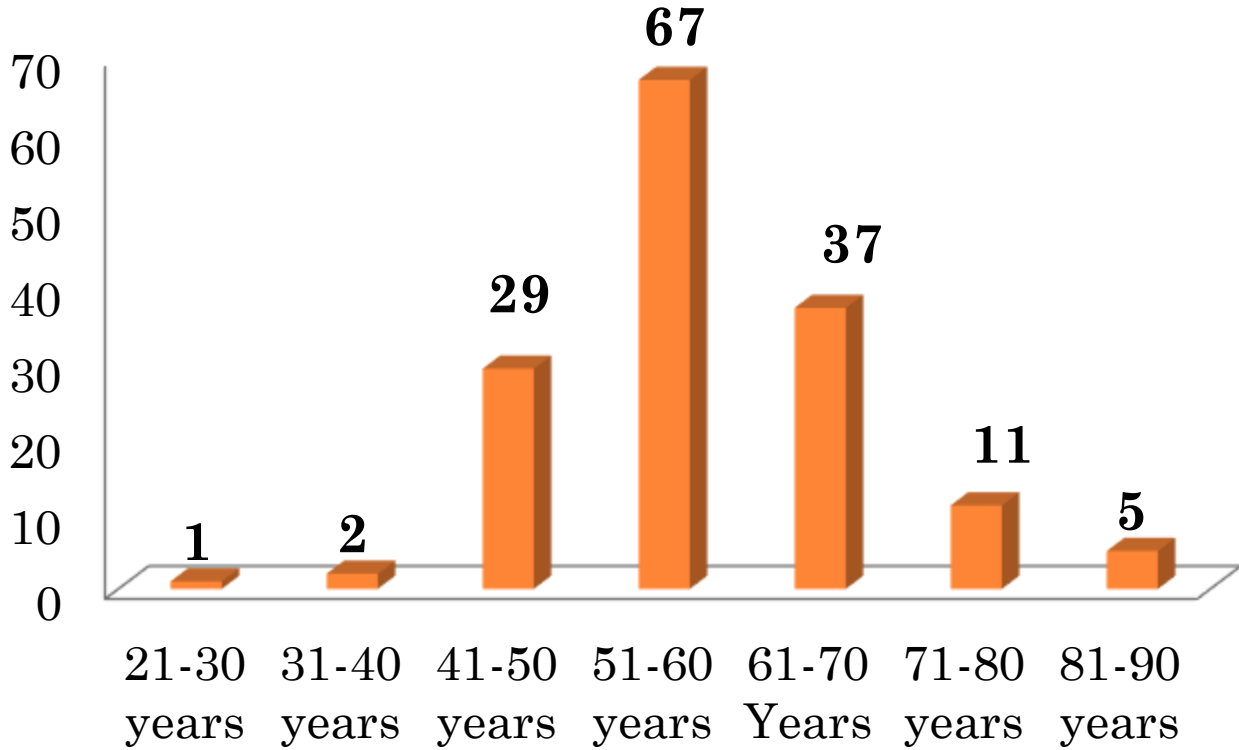
**2021**

# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION

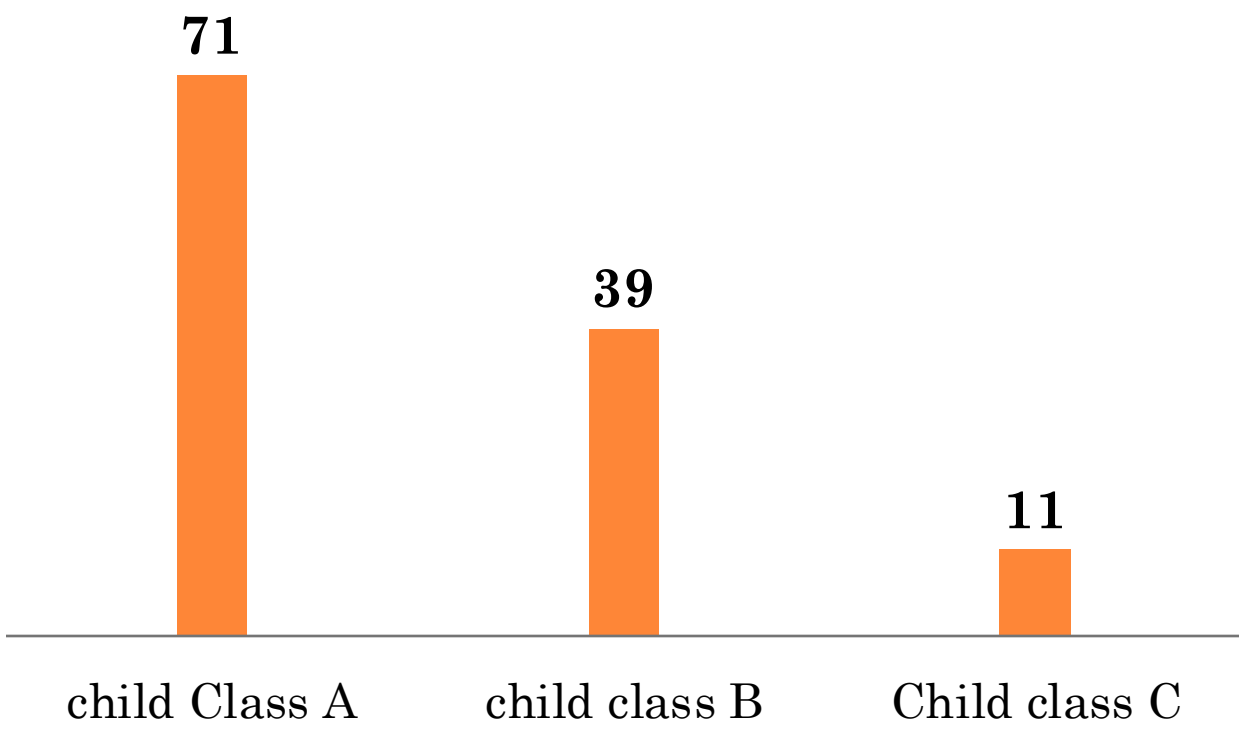
TOTAL NO OF PATIENTS	152
MALE	107
FEMALE	45



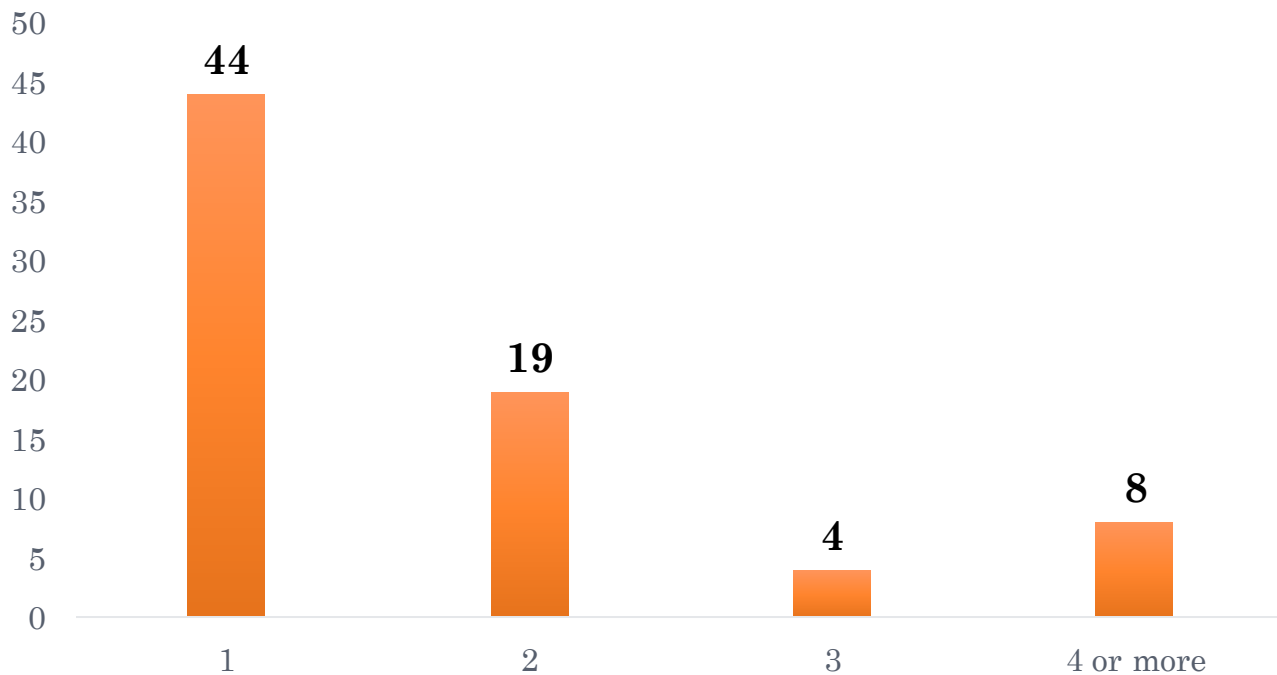
# AGE WISE DISTRIBUTION



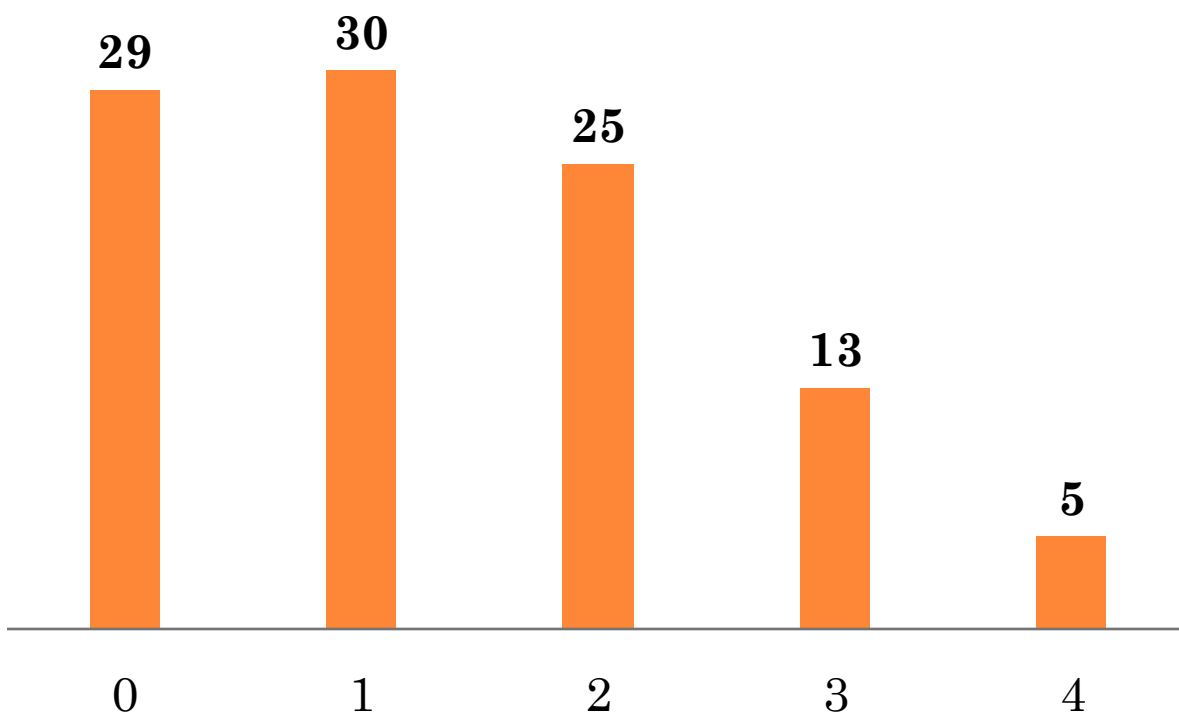
# CHILD TURCUTTE CLASS



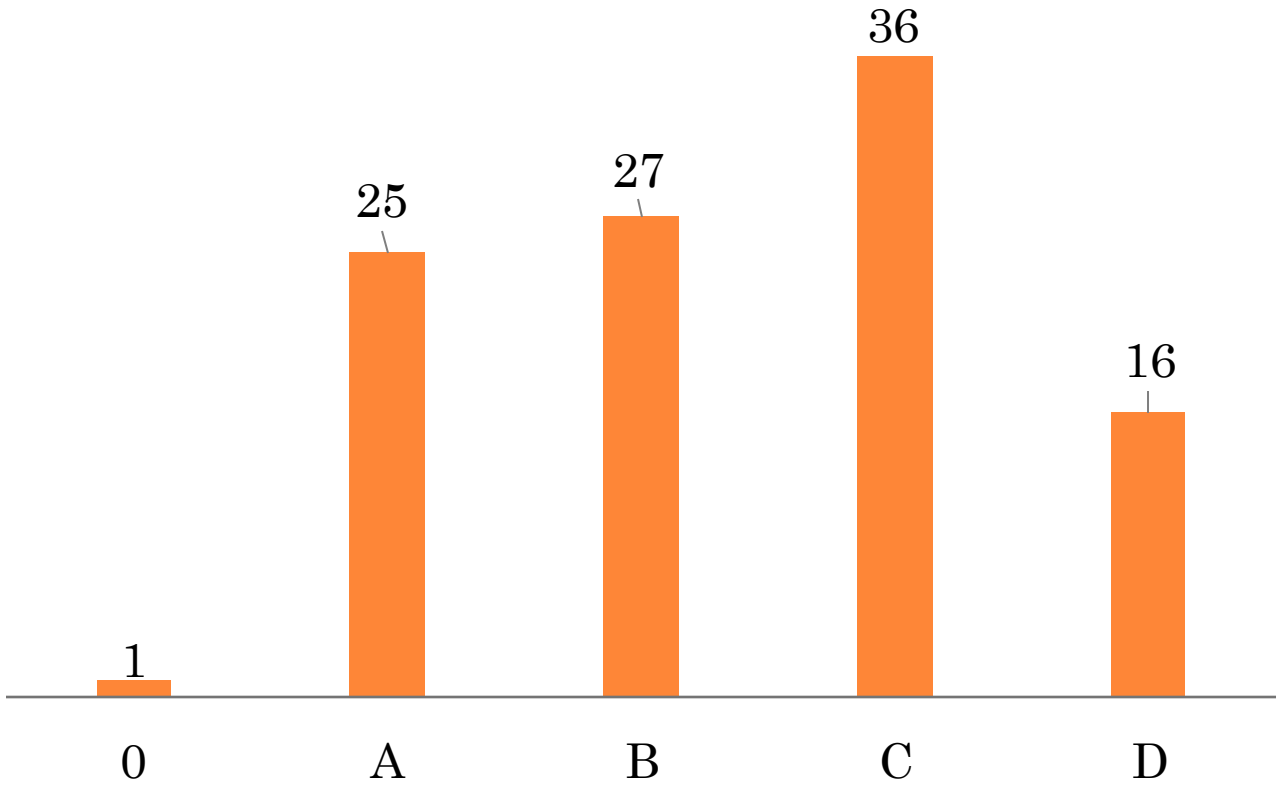
# NO. OF LESIONS ON CECT



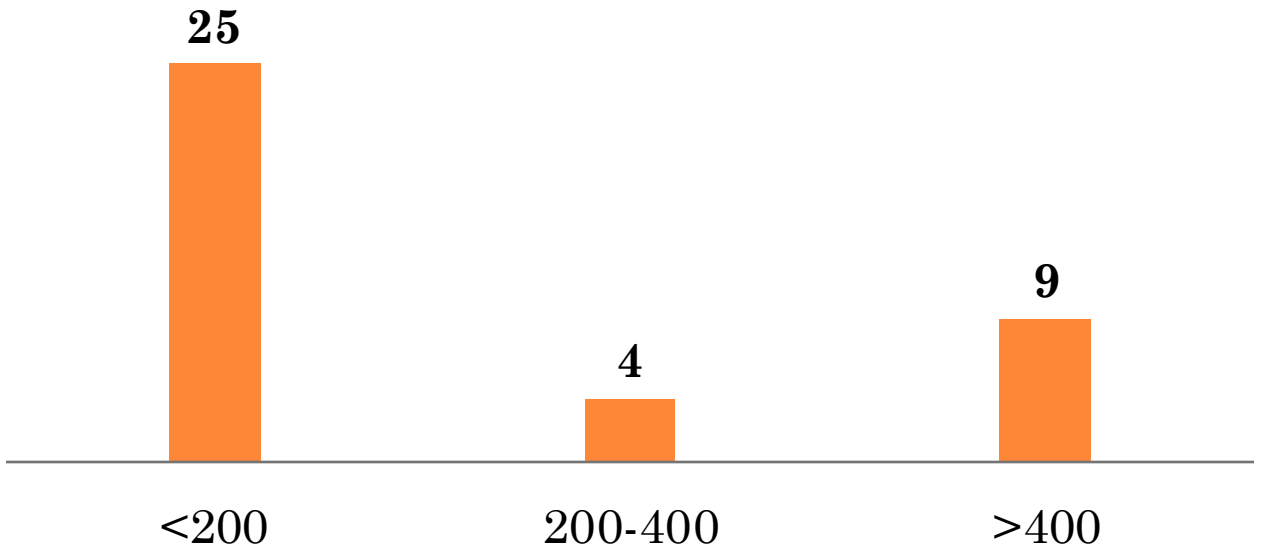
# PST (ECOG)



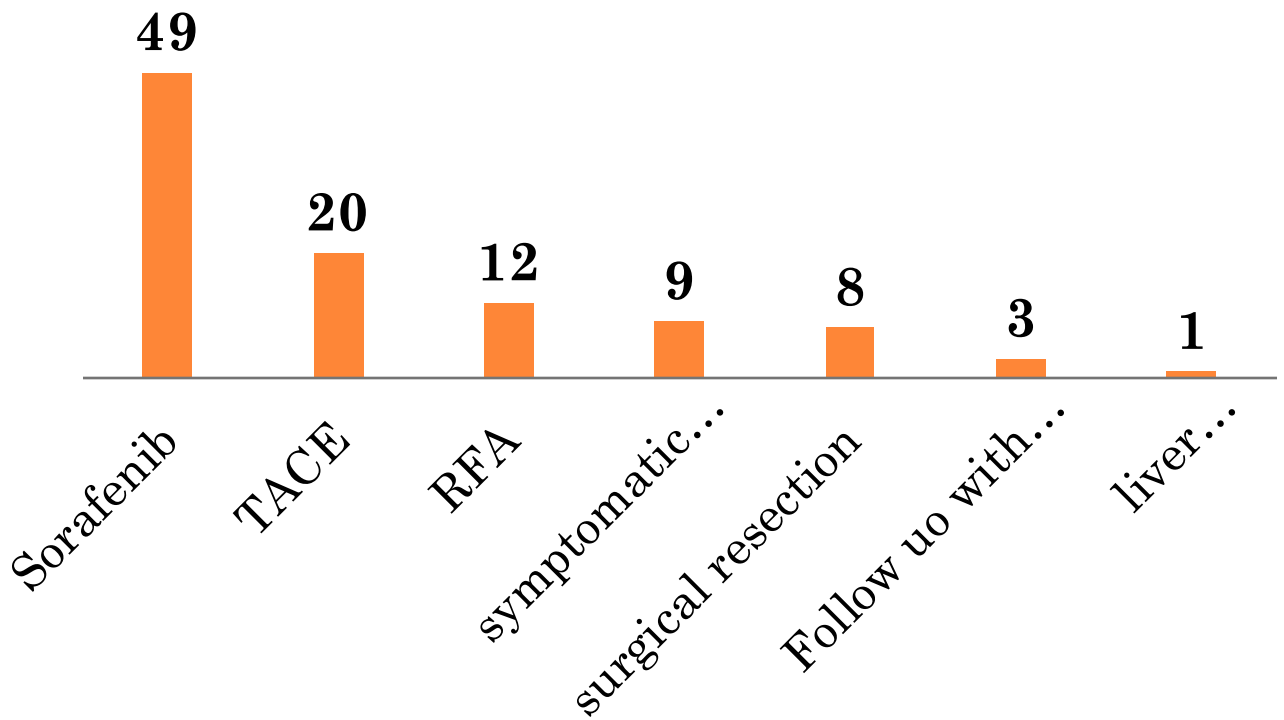
# BARCELONA CLINIC FOR LIVER CANCER STAGE



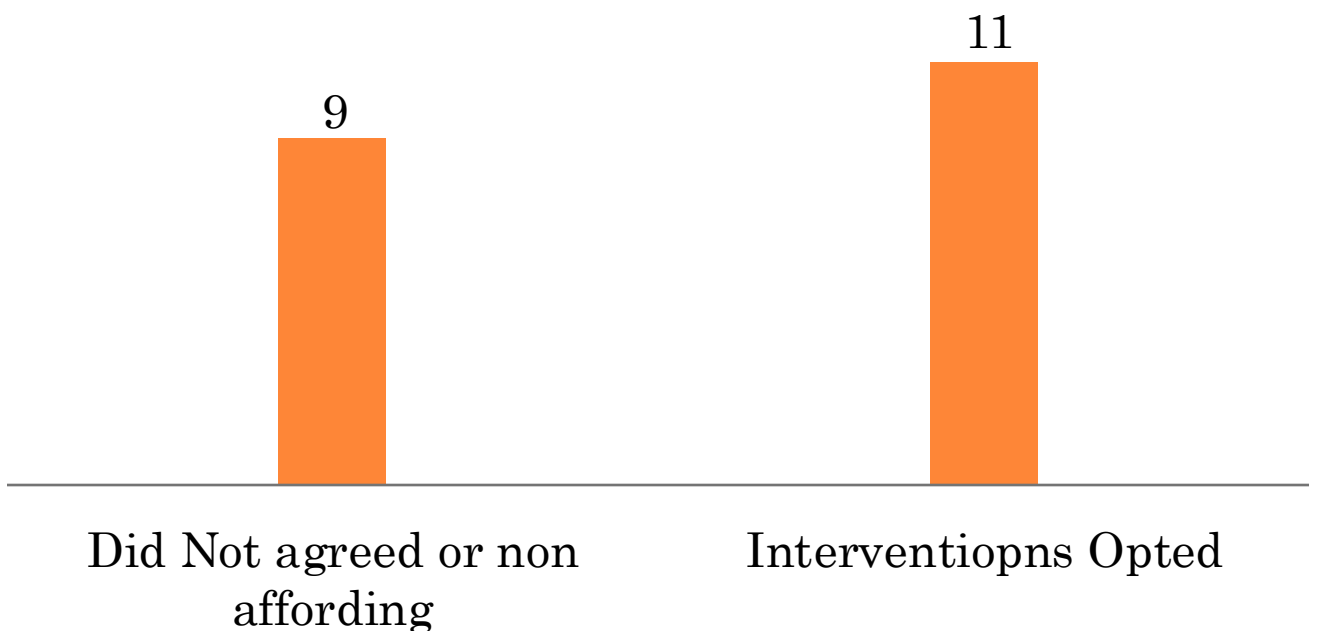
## ALPHA FETO PROTEINS



# TREATMENT OFFERED



# INTERVENTIONS OPTED BY PATIENTS OR NOT

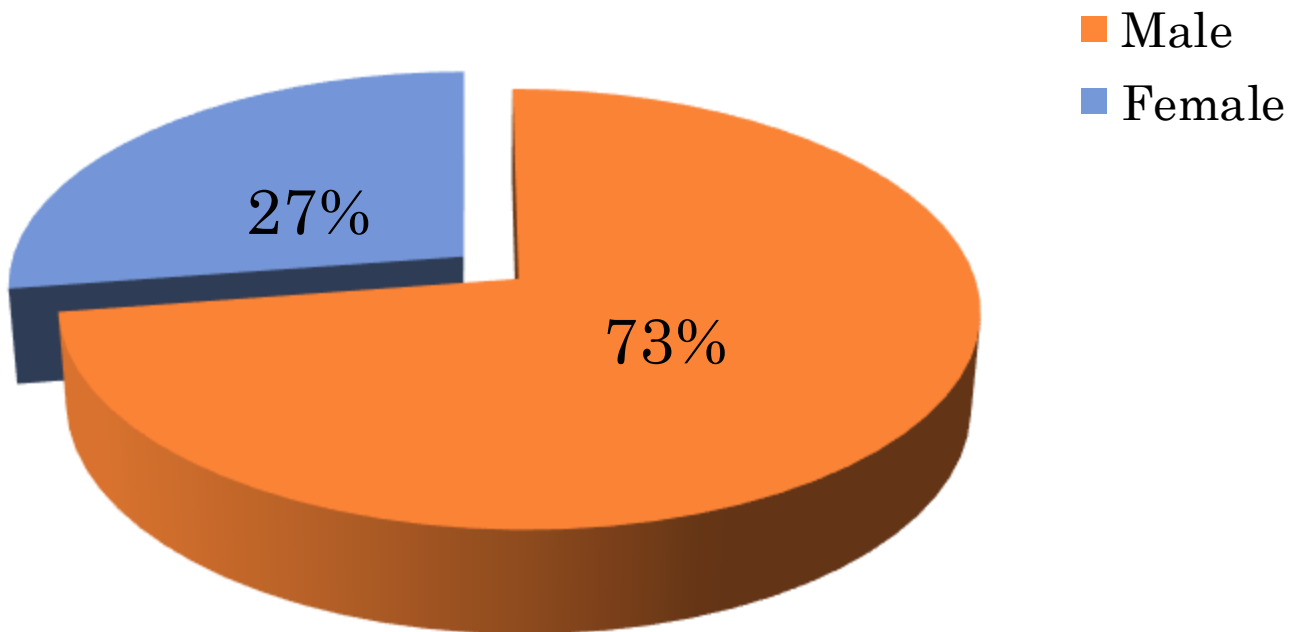


**2022**

# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION.

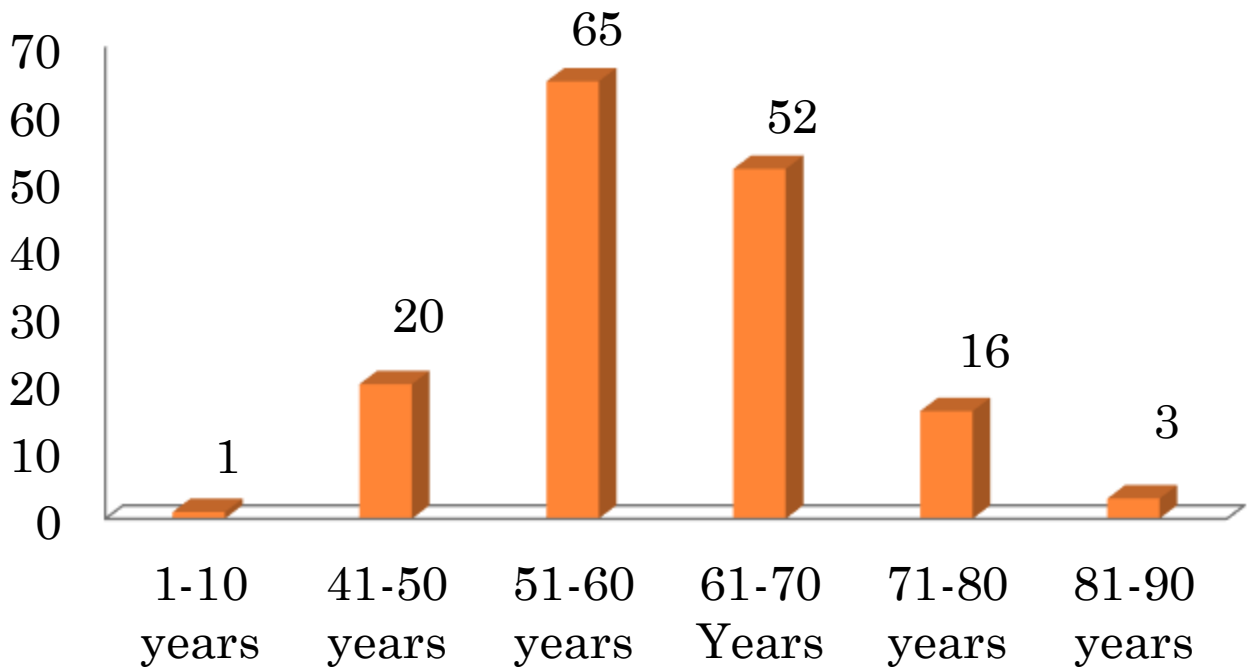
<b>Total No of Patients</b>	<b>157</b>
Male	114
Female	43

## Gender

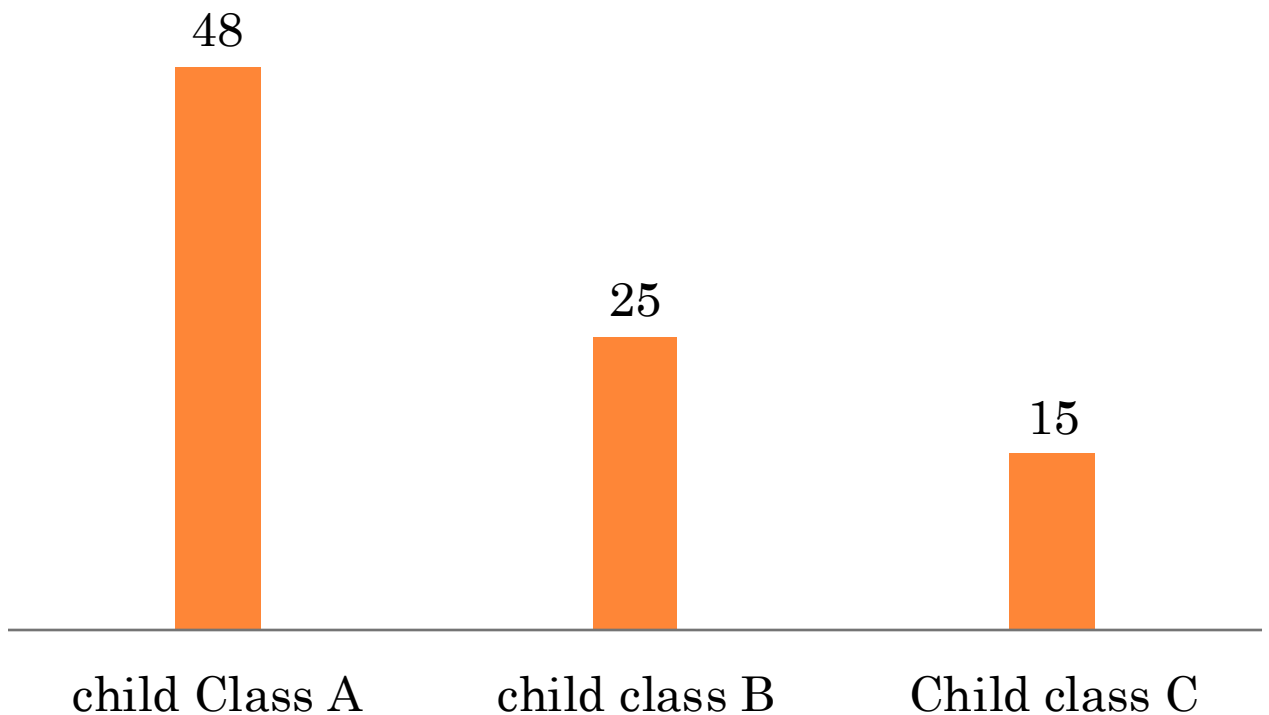




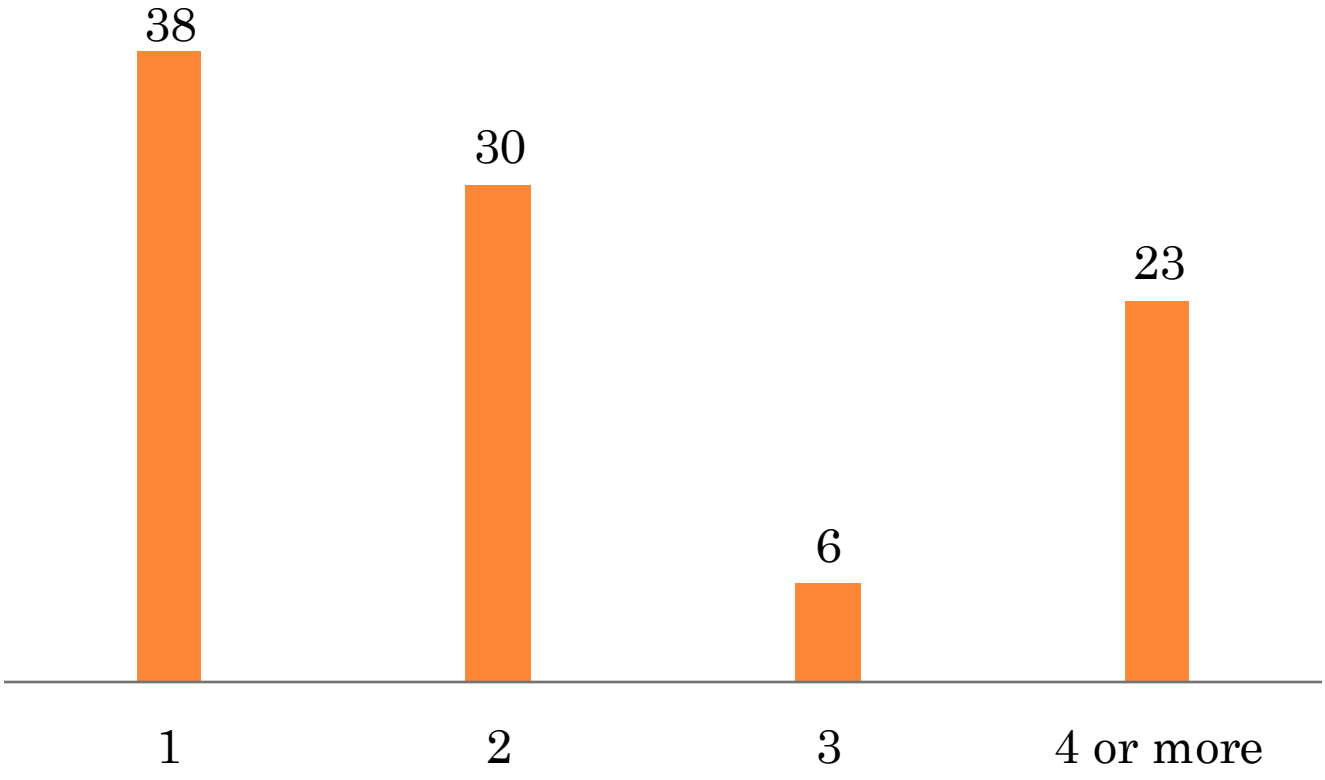
# AGE WISE DISTRIBUTION



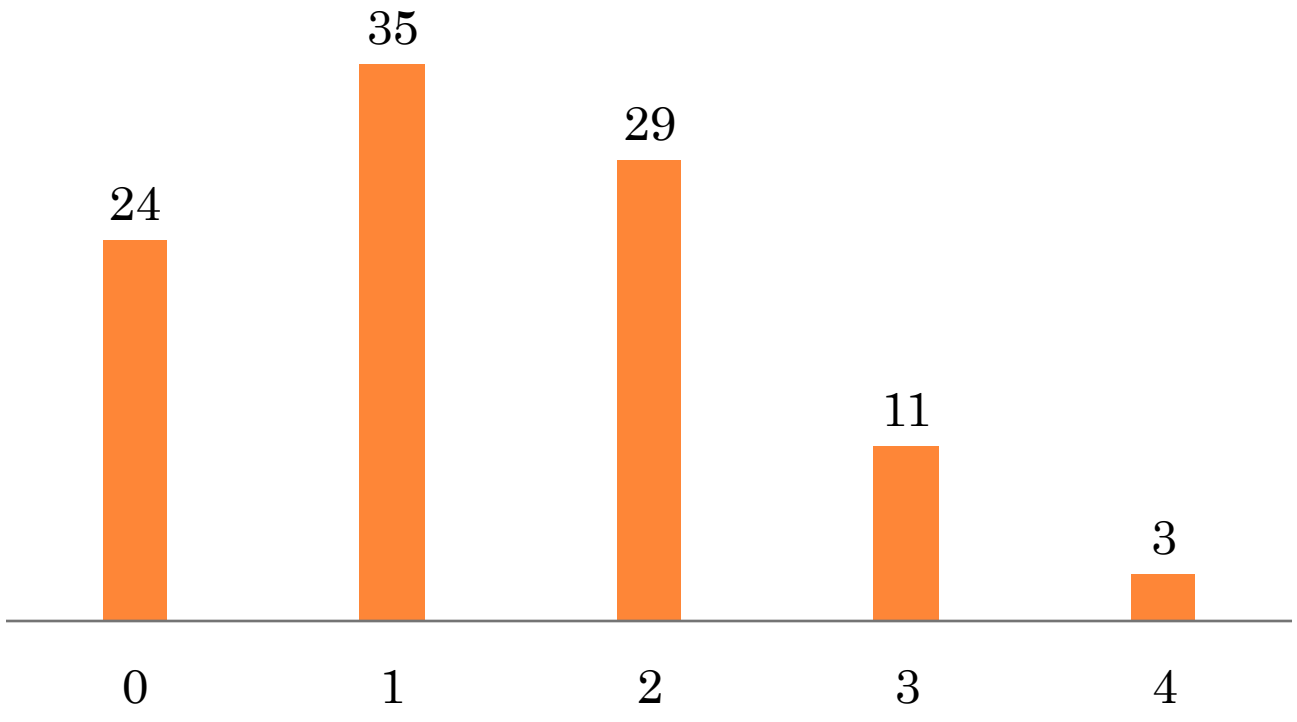
■ CHILD TURCUTTE CLASS



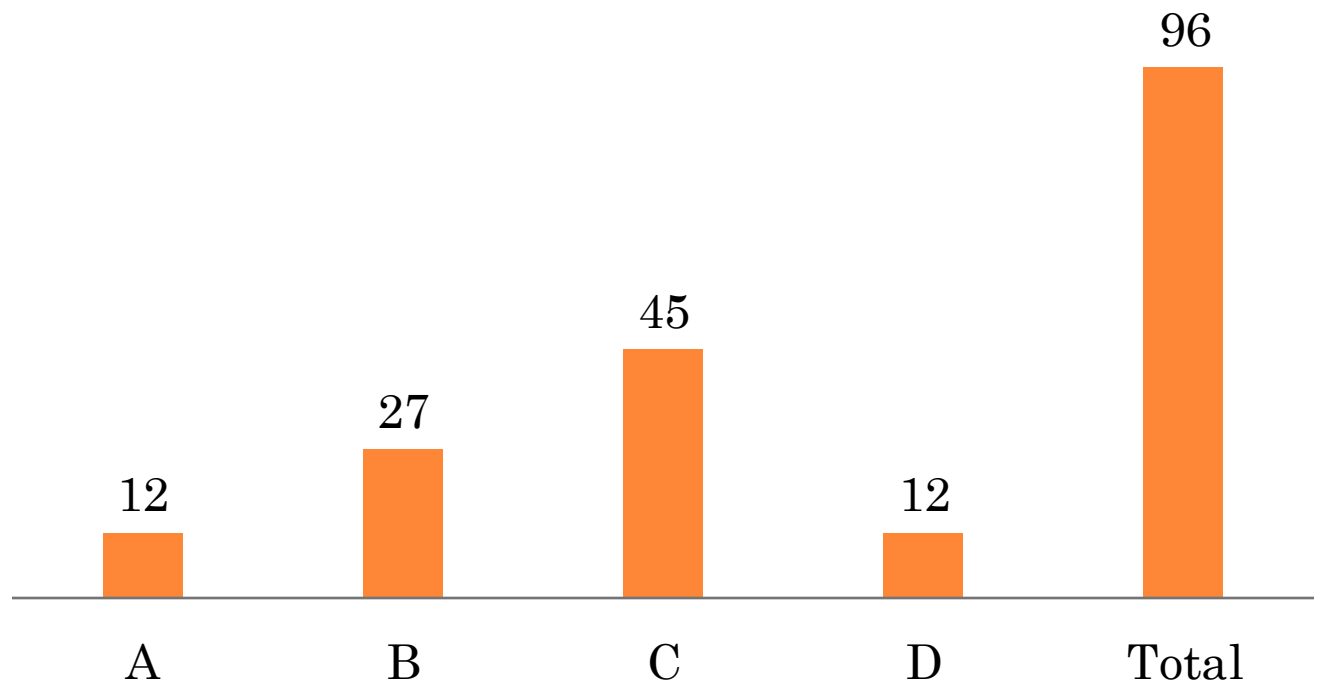
# NO. OF LESIONS ON CECT



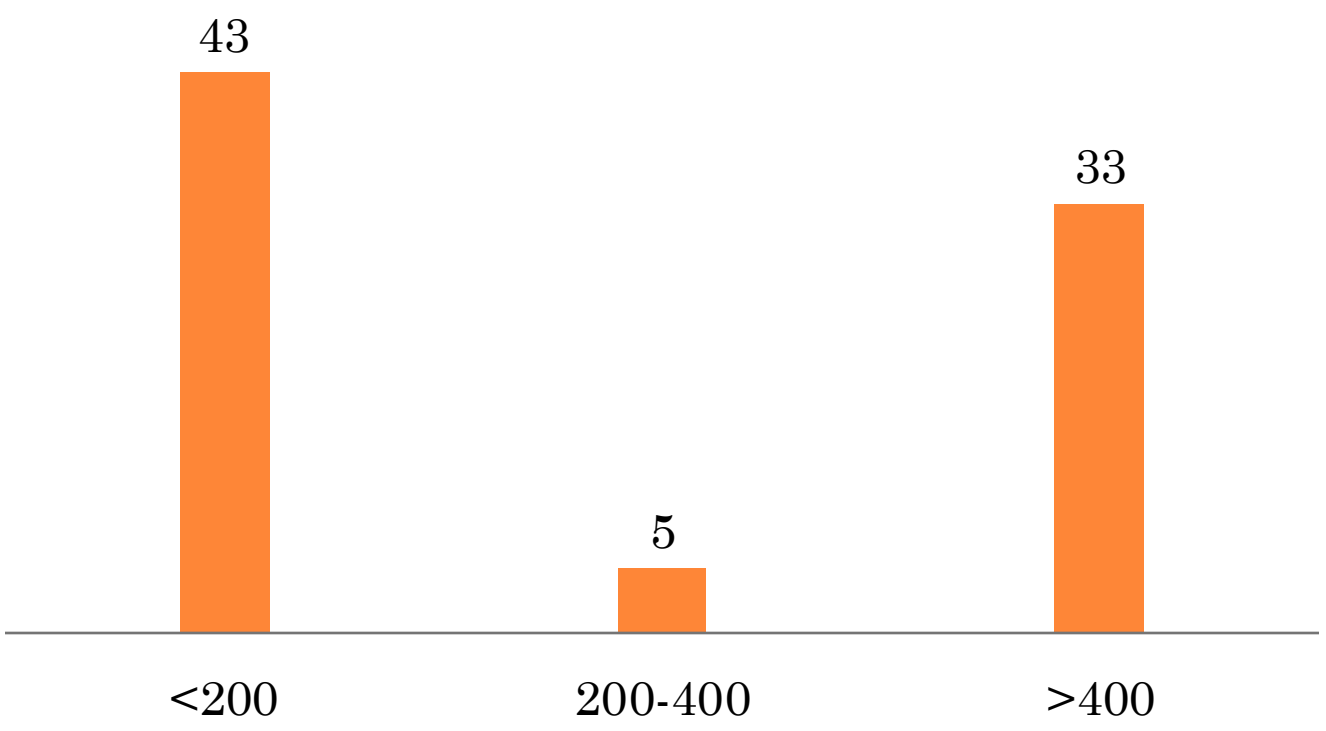
# PST (ECOG)



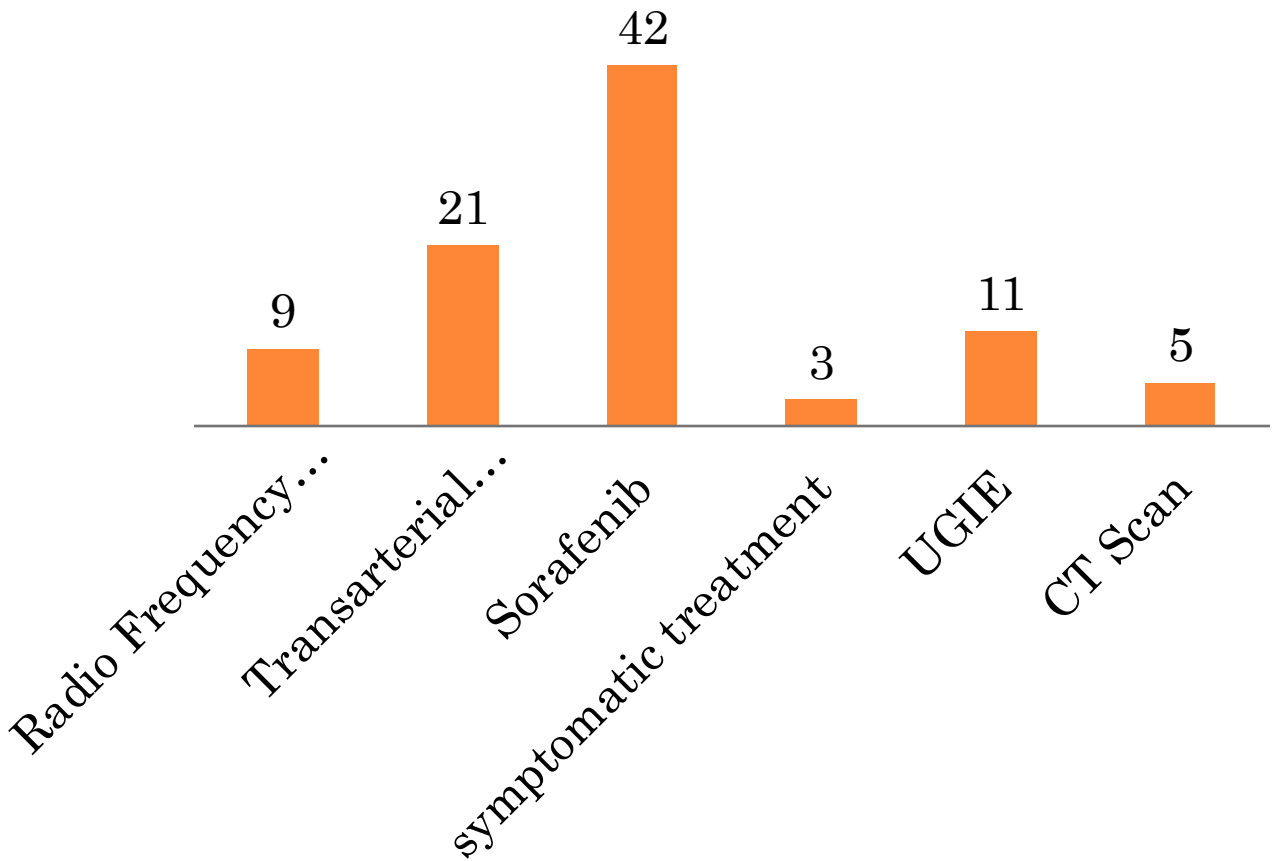
# BARCELONA CLINIC FOR LIVER CANCER STAGE



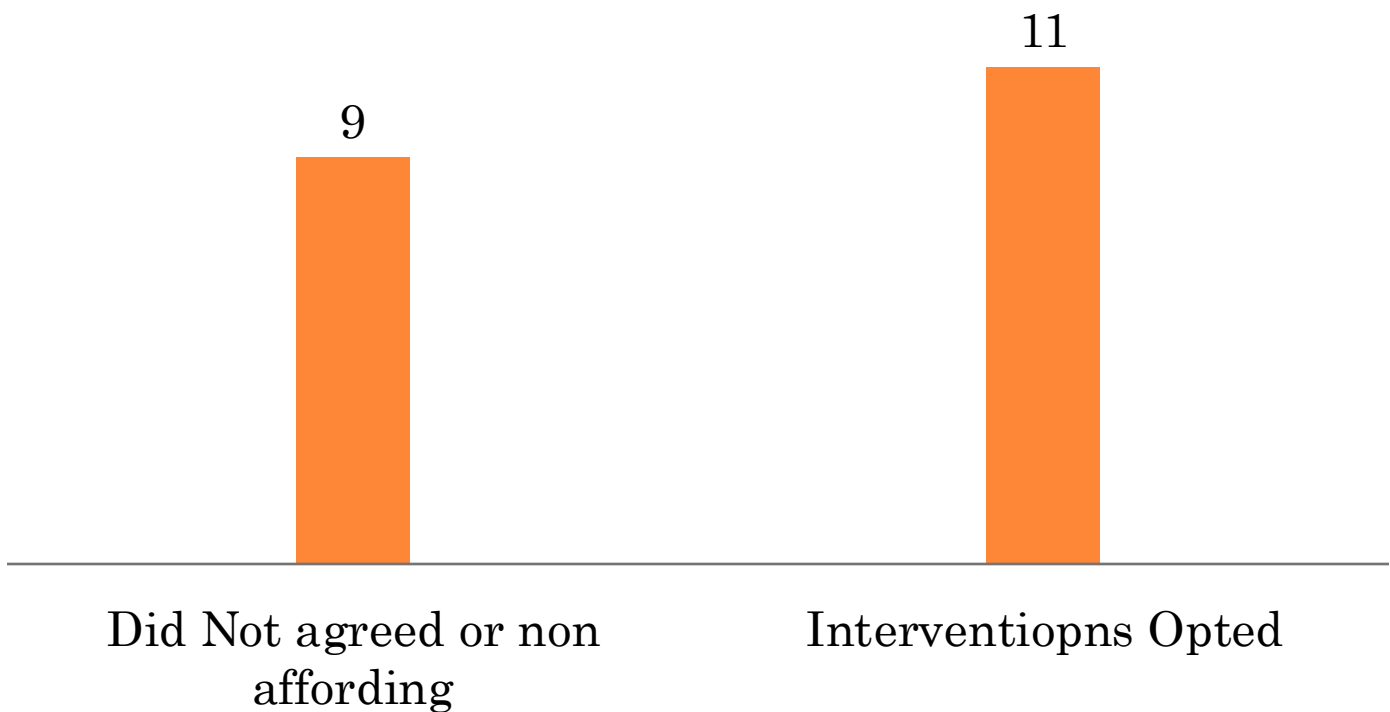
## ALPHA FETO PROTEINS



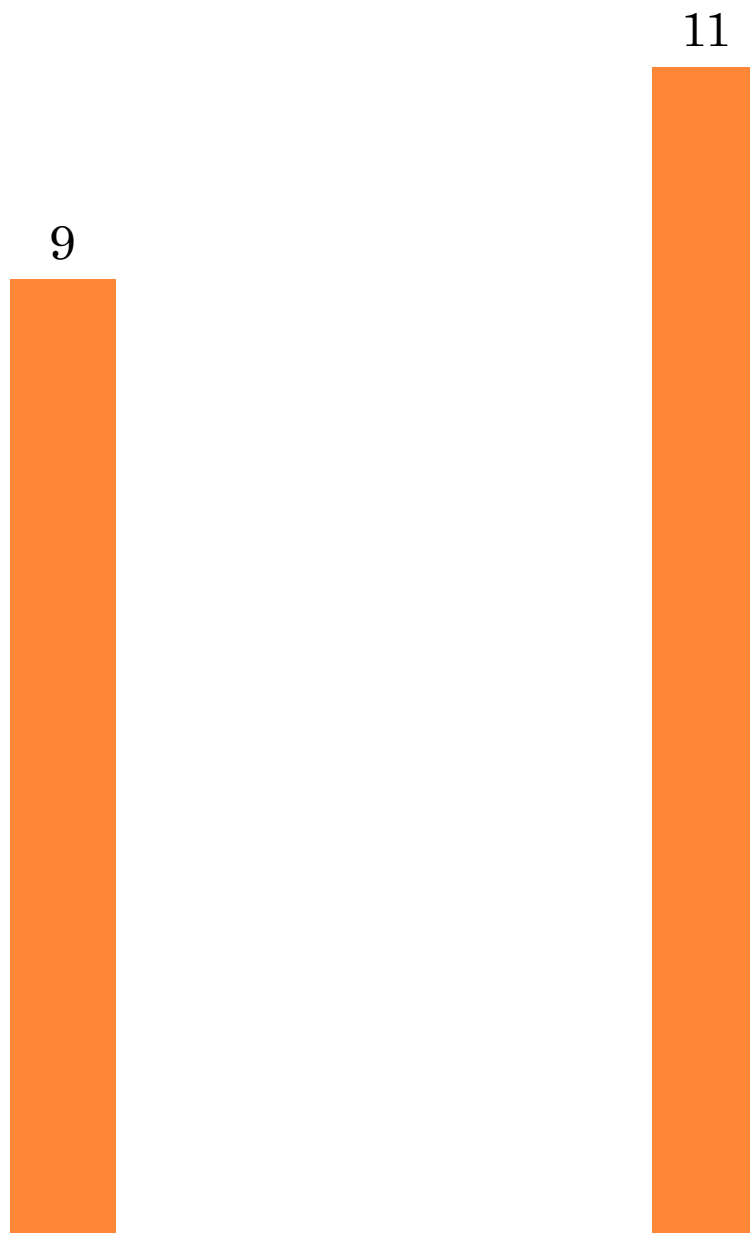
# TREATMENT OFFERED



# INTERVENTIONS OPTED BY PATIENTS OR NOT



# INTERVENTIONS OPTED BY PATIENTS OR NOT

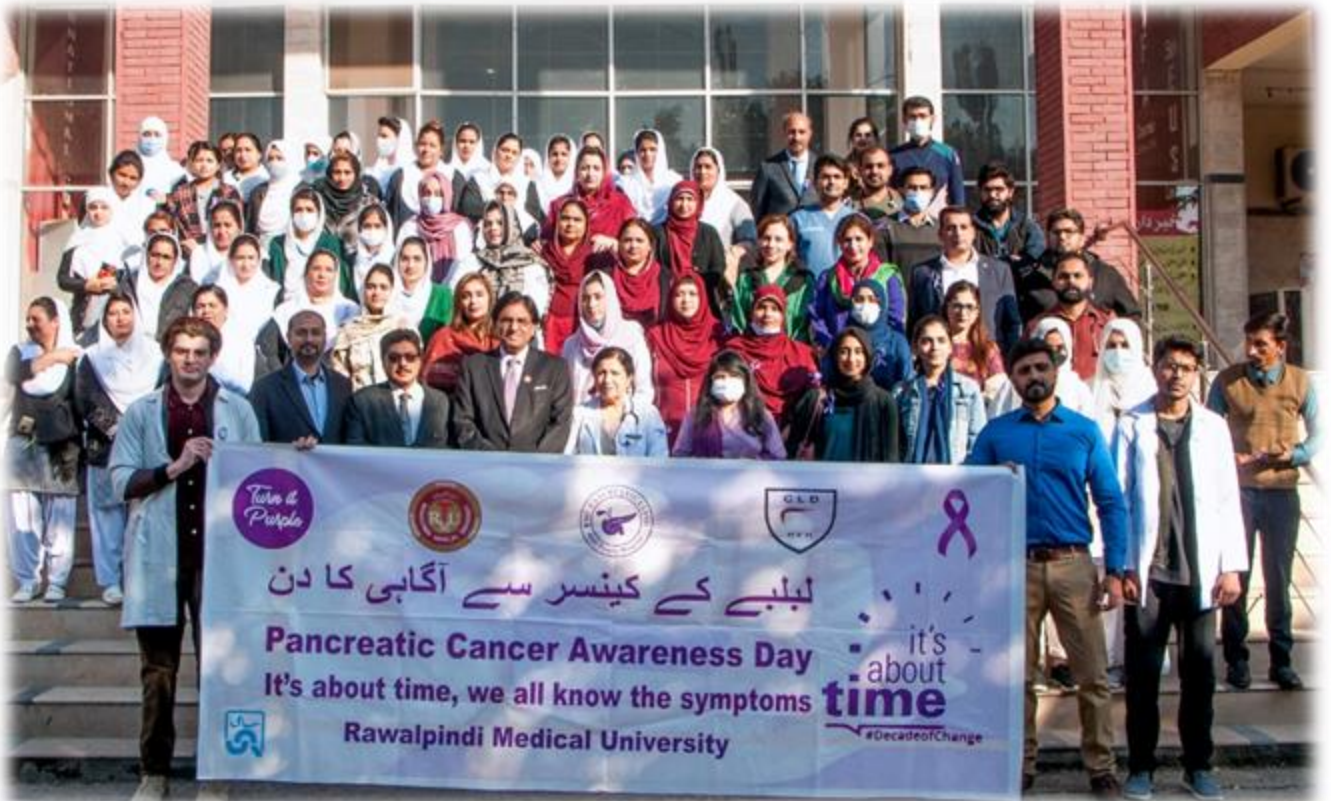


Did Not agreed or non  
affording

Interventiopns Opted

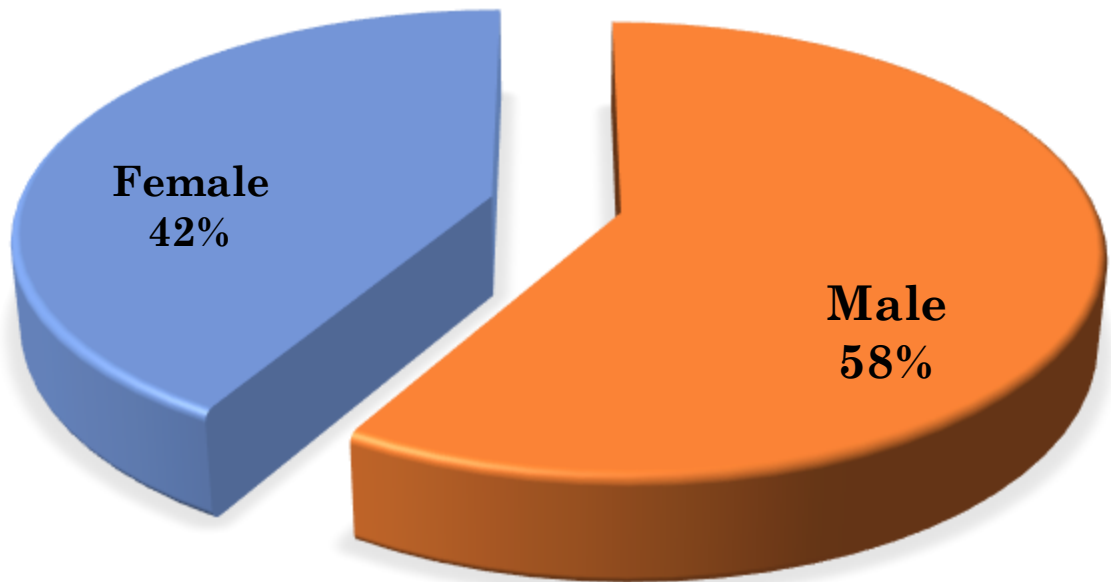
# Pancreatitis Clinic Audit

In the year 2022 Center for Liver & digestive diseases have successfully launched a dedicated Pancreatitis clinic, offering its services once weekly on every Tuesday. 118 patients have already been registered with maximum number presenting as acute pancreatitis.

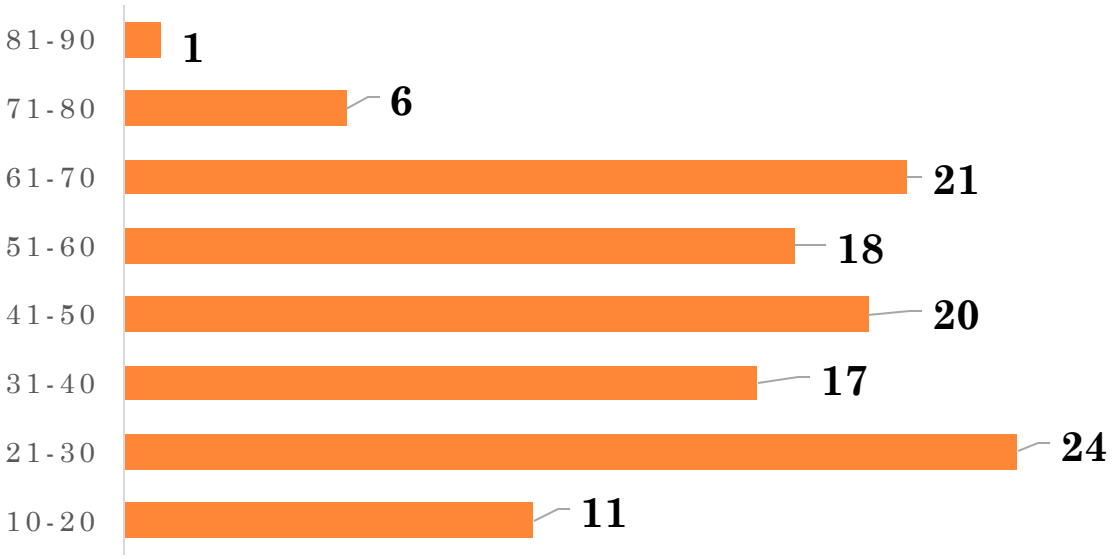


# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION.

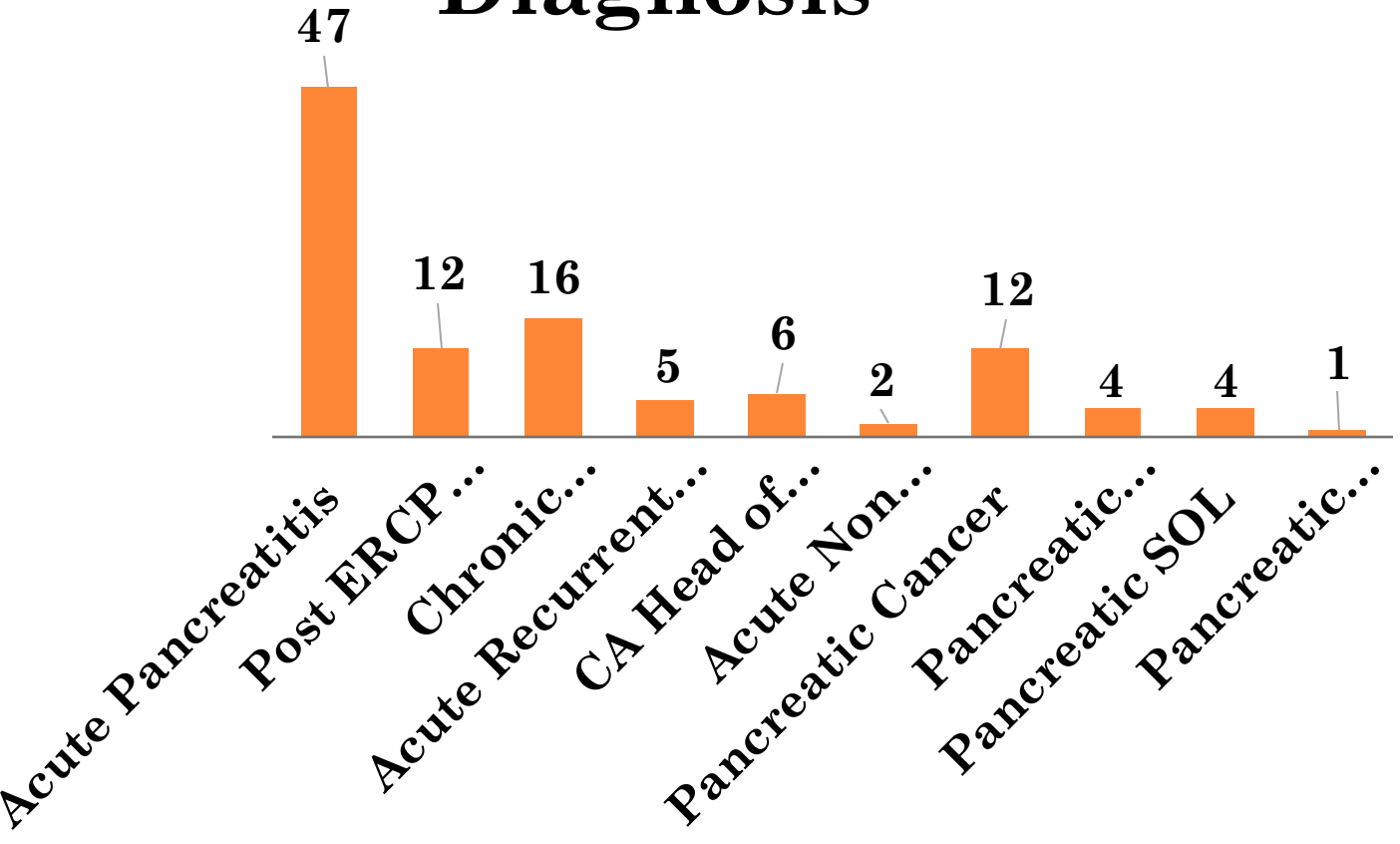
<b>Total No of Patients</b>	<b>118</b>
Male	69
Female	49



# AGE WISE DISTRIBUTION



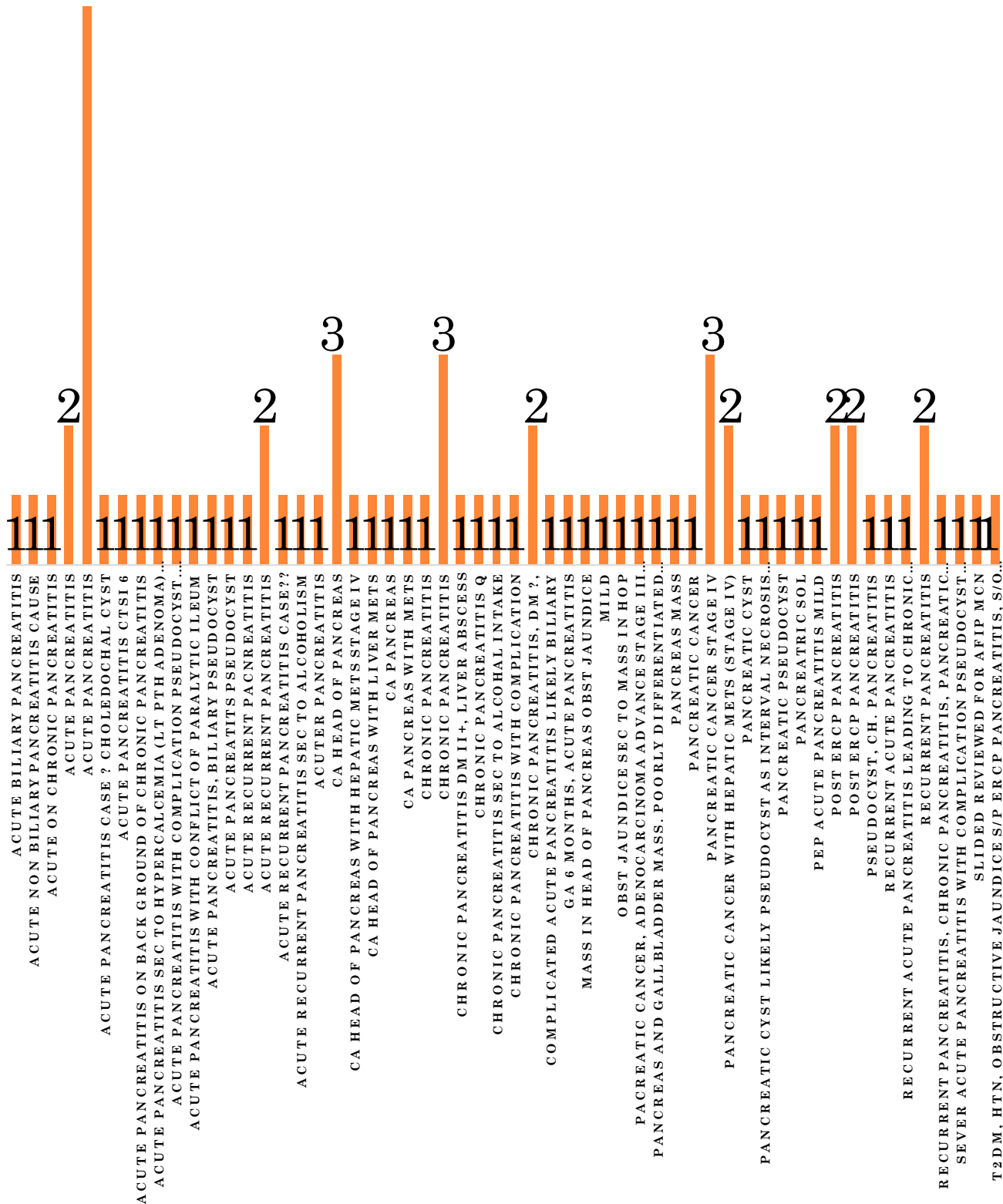
# Diagnosis





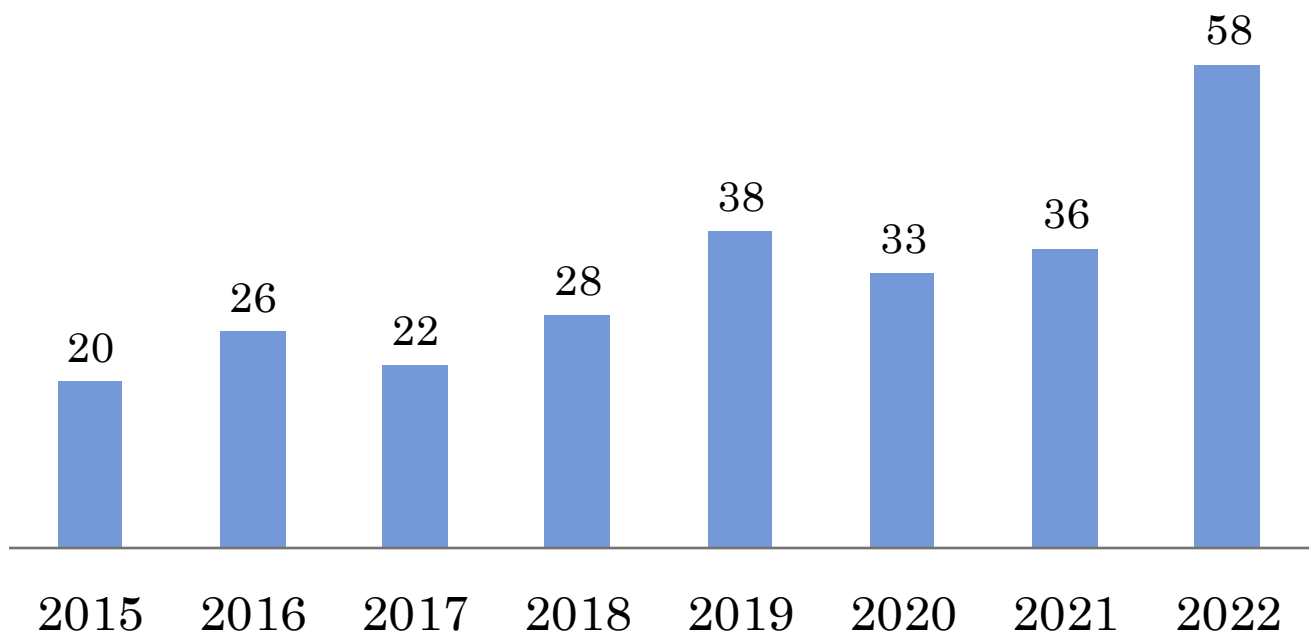
# FINAL DIAGNOSIS

8



# IBD Audit

Inflammatory bowel disease has become a global disease with accelerating incidence in newly industrialized countries where societies are being westernized with a prevalence of 0.3%. However, the incidence varies from region to region. Furthermore, there is variability in the incidence of crohn's disease and ulcerative colitis. Center of Liver and digestive diseases has taken a step forward and established a dedicated IBD clinic. So far 261 patients have been enrolled and are in follow up. In 2022, 58 new patients enrolled out of which 2 patients had crohn's disease. Most of the patients are of Punjabi descend. Maximum patients responded with Sulfasalazine and Azathioprine (+steroids).

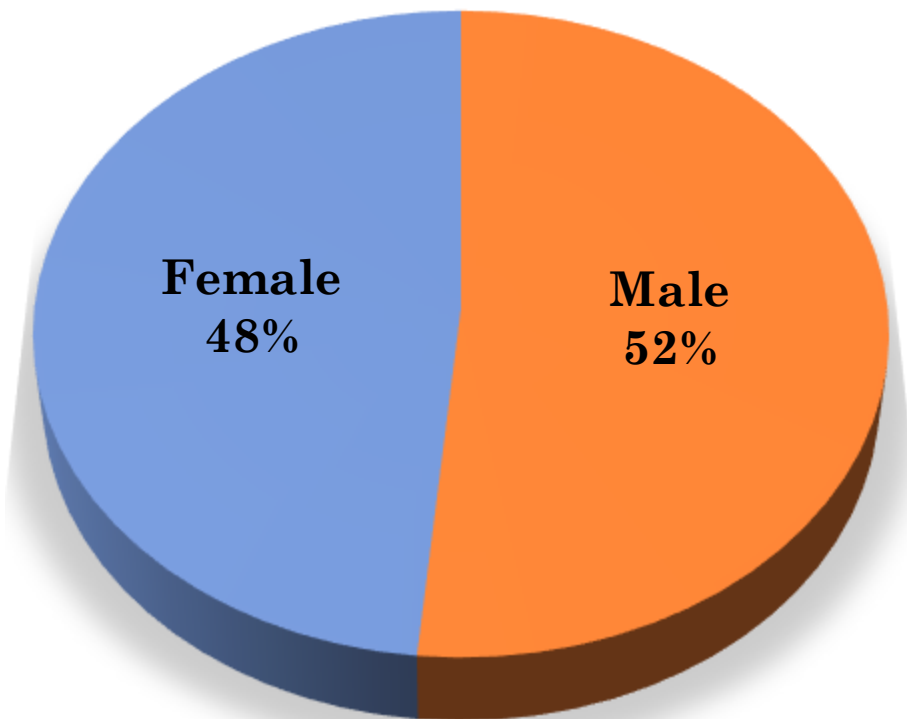


**2020**

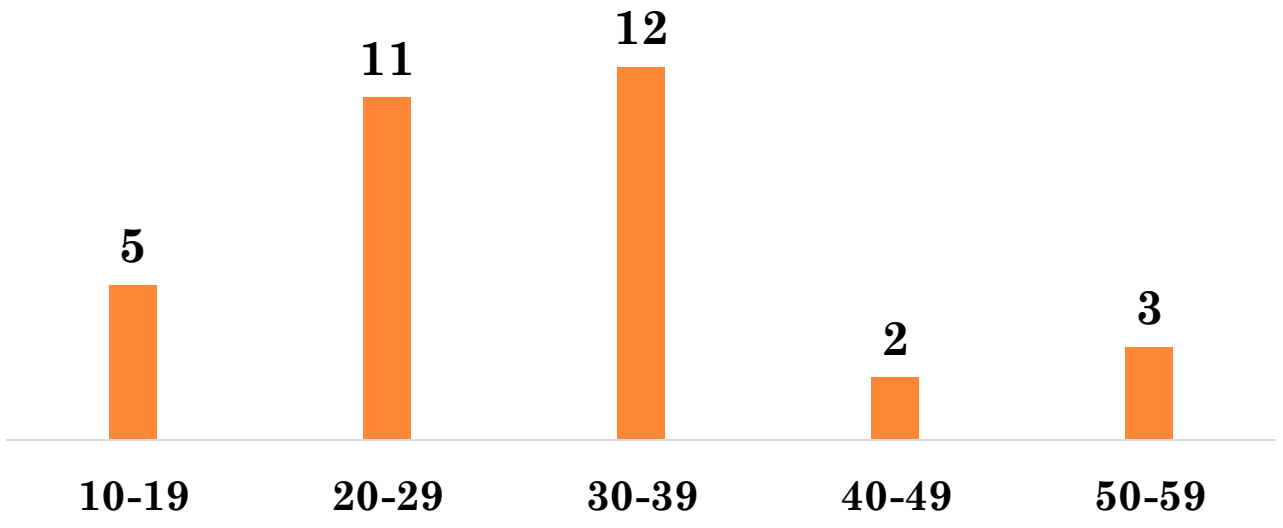
# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION

TOTAL NO OF PATIENTS	33
MALE	17
FEMALE	16

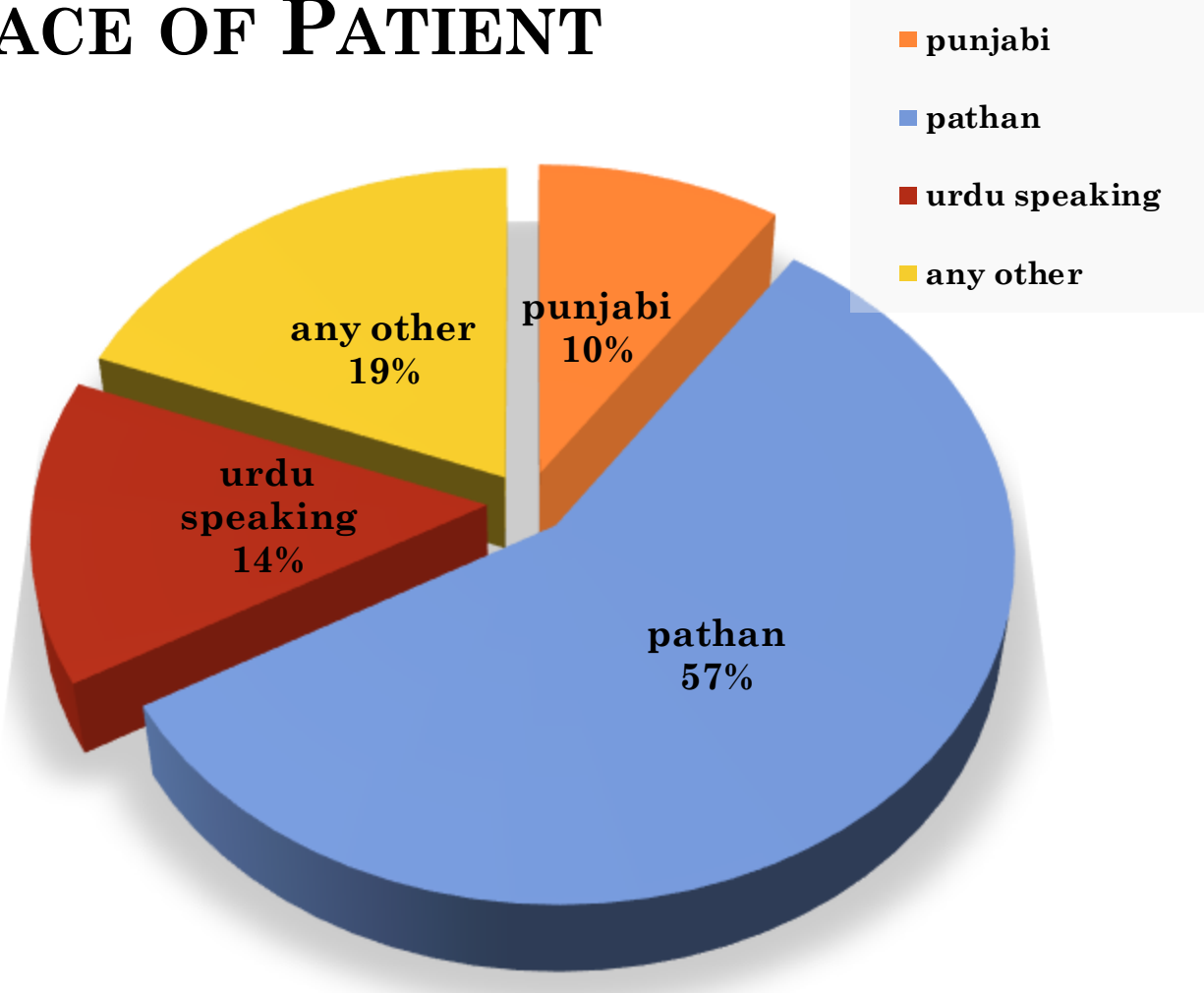
**Gender**



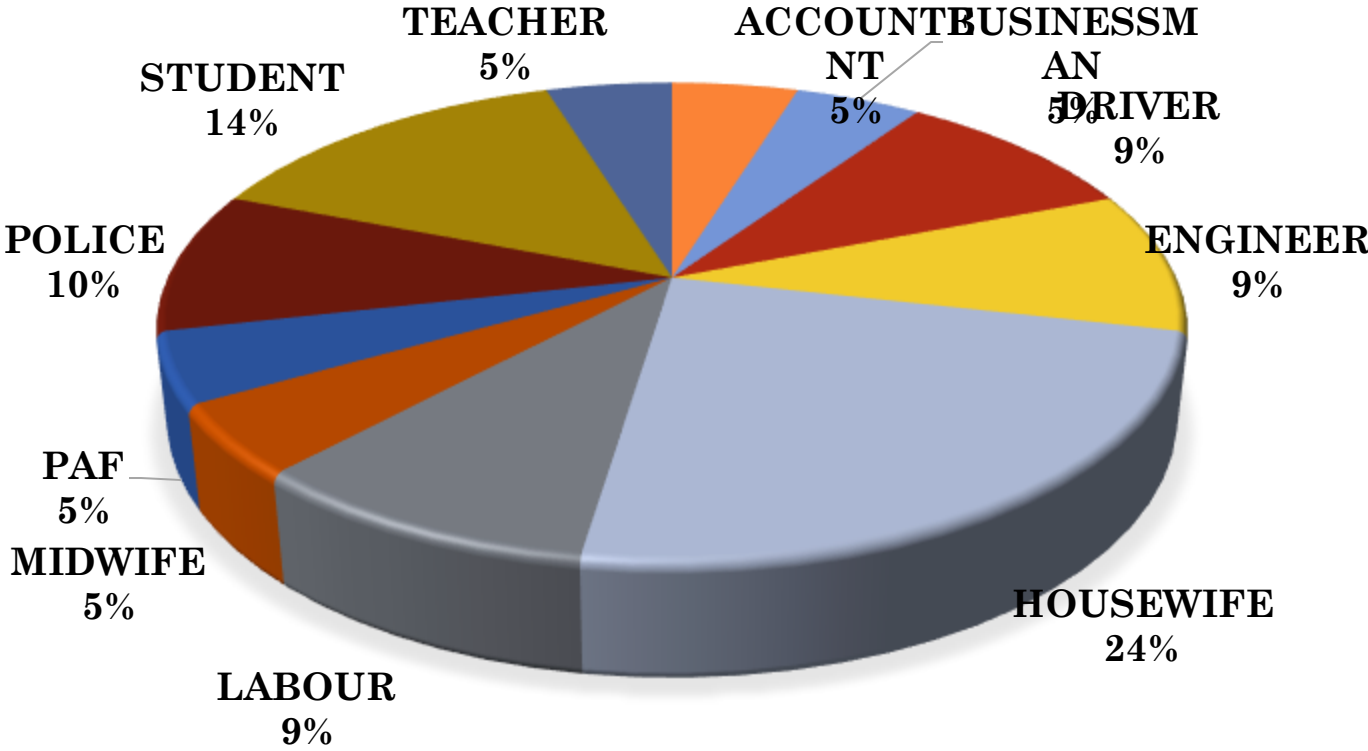
# AGE WISE DISTRIBUTION



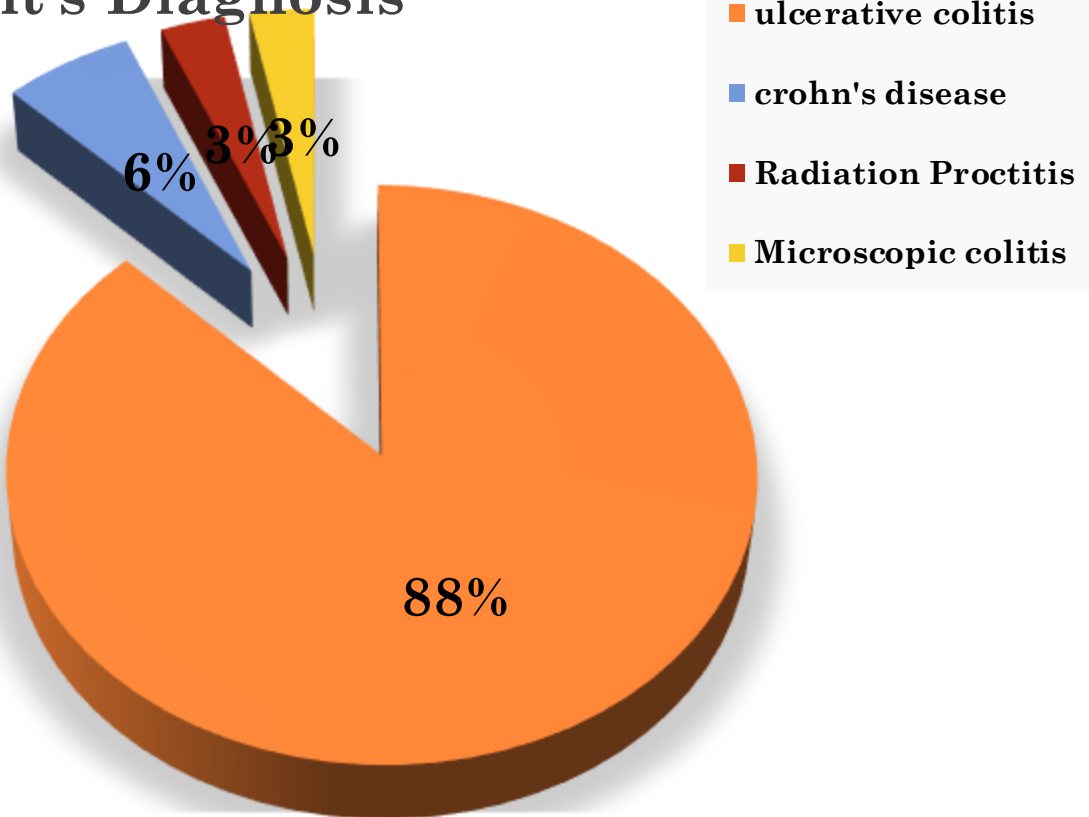
# RACE OF PATIENT



# PATIENT'S PROFESSION

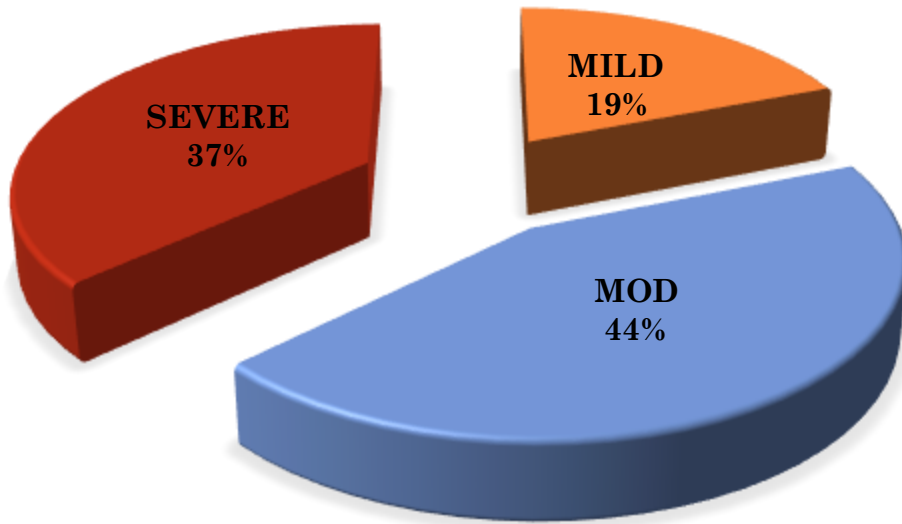


## Patient's Diagnosis

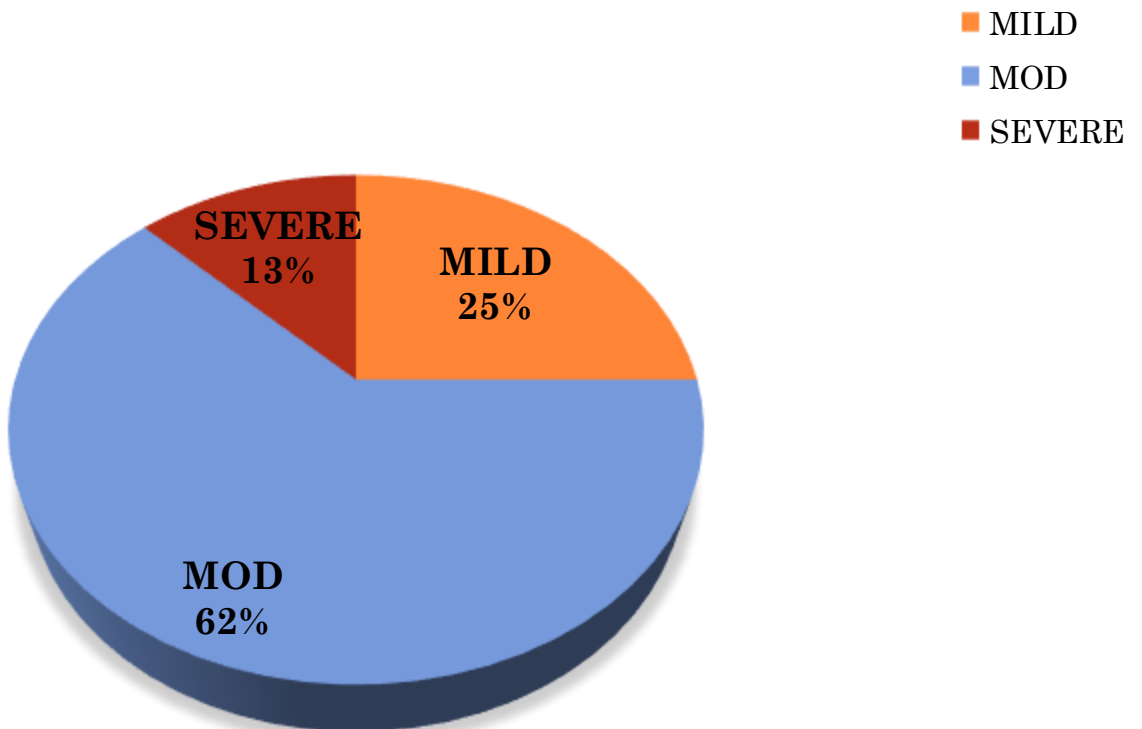


- ulcerative colitis
- crohn's disease
- Radiation Proctitis
- Microscopic colitis

# COLONOSCOPIC SEVERITY AT PRESENTATION

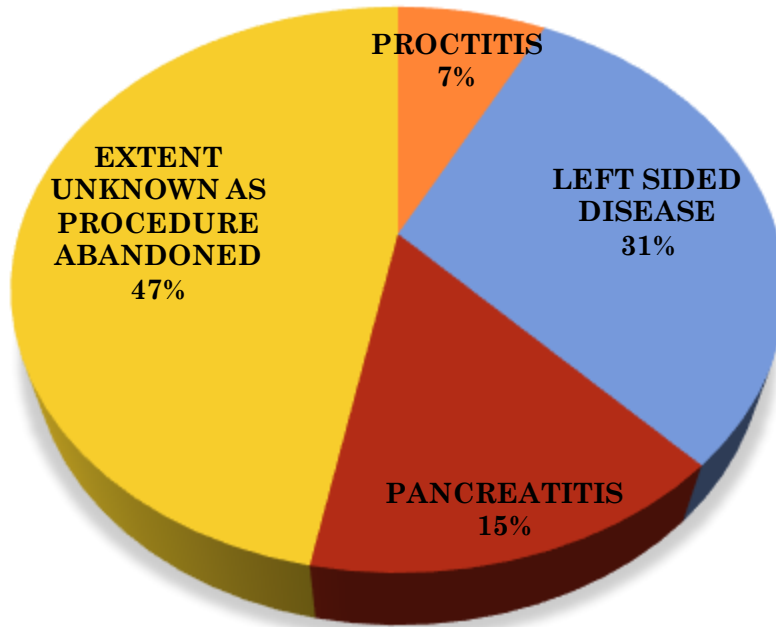


# HISTOLOGICAL SEVERITY AT PRESENTATION

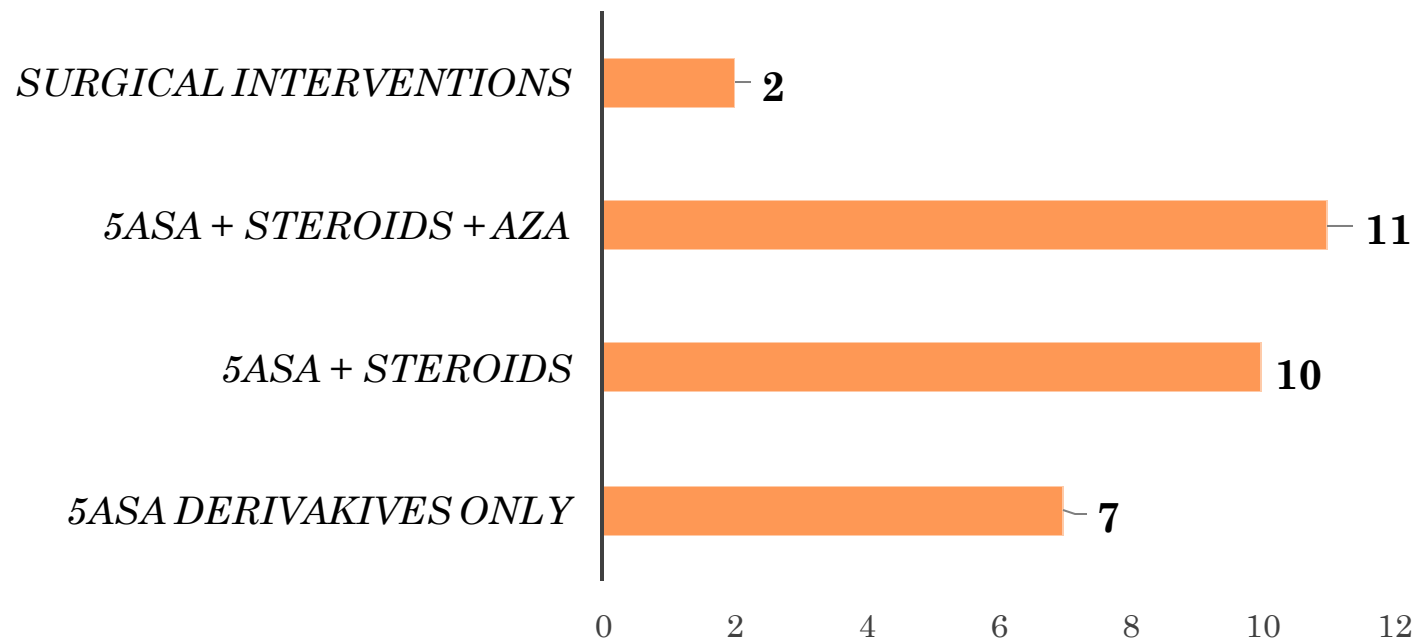


# EXTENT OF DISEASE AT PRESENTATION

- PROCTITIS
- LEFT SIDED DISEASE
- PANCREATITIS
- EXTENT UNKNOWN AS PROCEDURE ABANDONED



# TREATMENT OFFERED

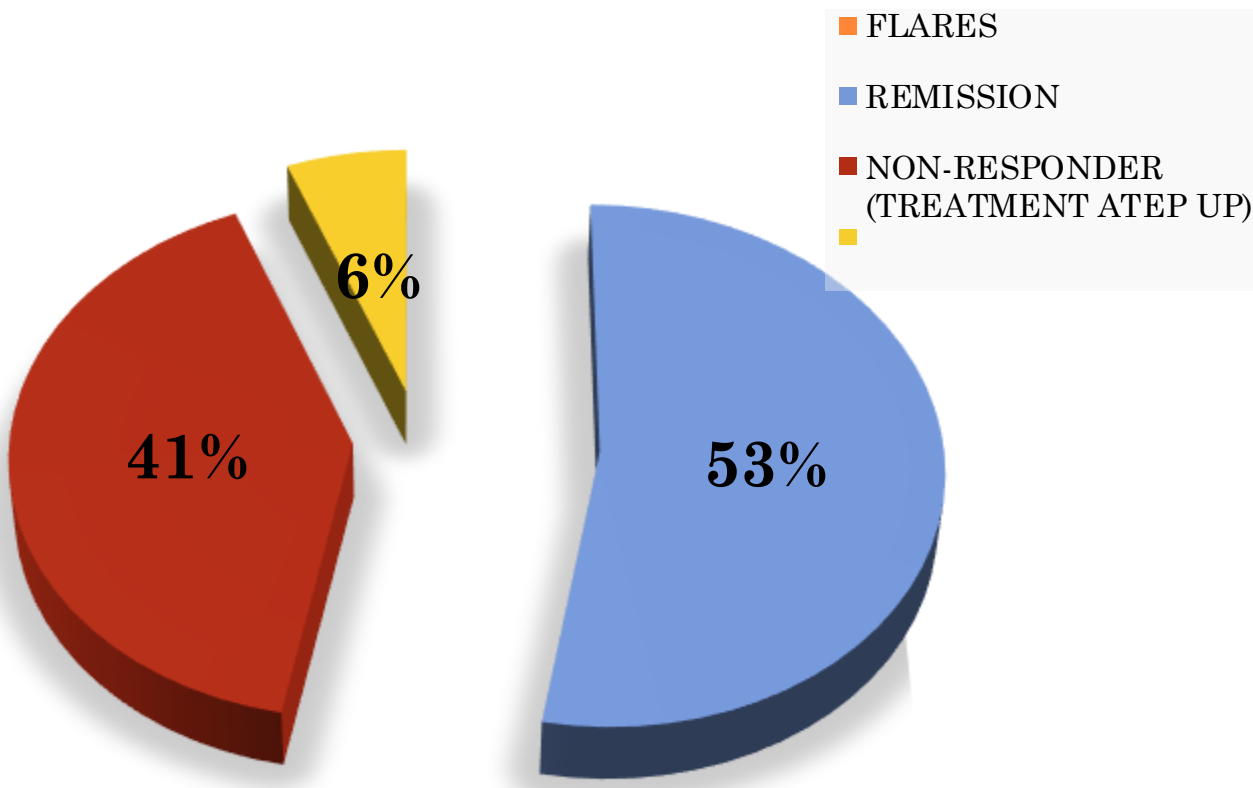




# FOLLOW UP IN IBD CLINIC:-

TOTAL PATIENTS REGISTER IN IBD CLINIC SINCE 2015 = 170

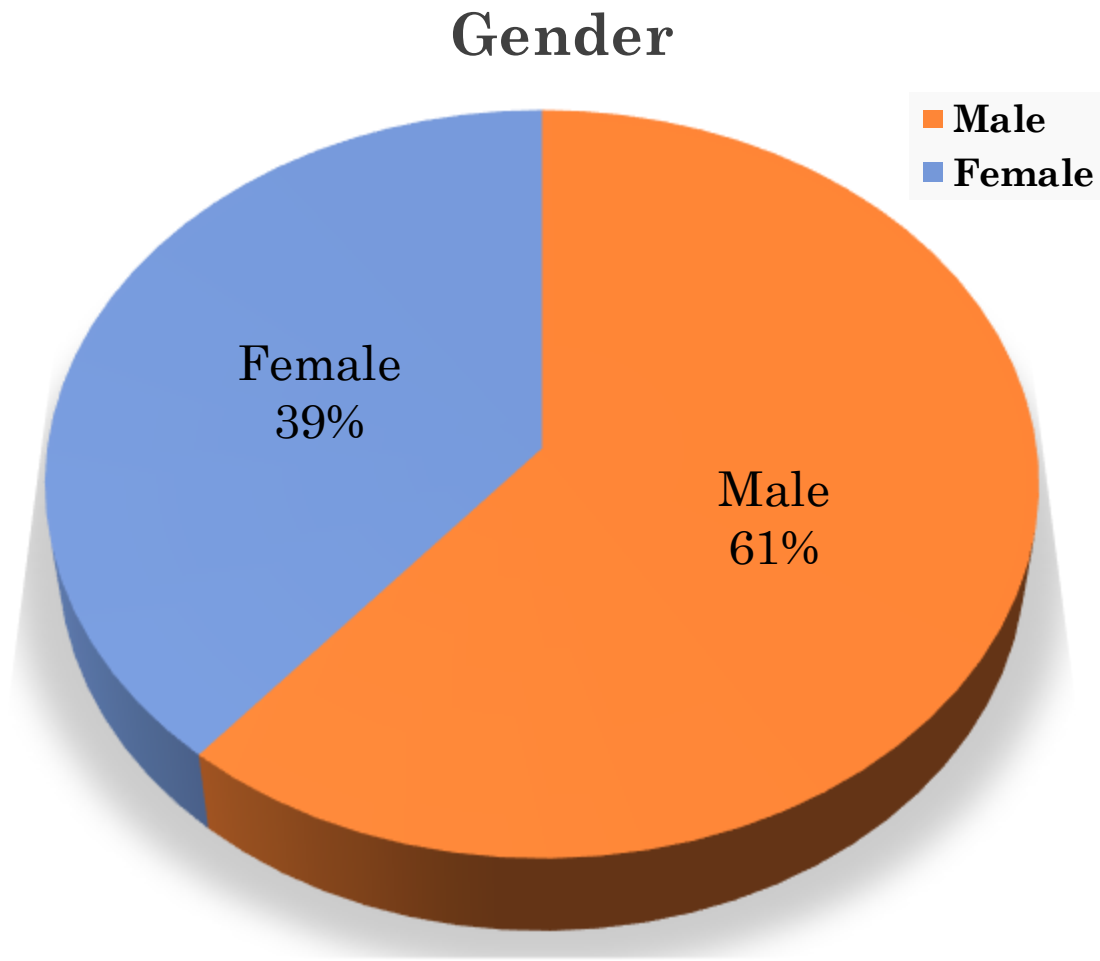
FOLLOW UP PATIENTS IN IBD CLINIC YEAR 2020 = 61



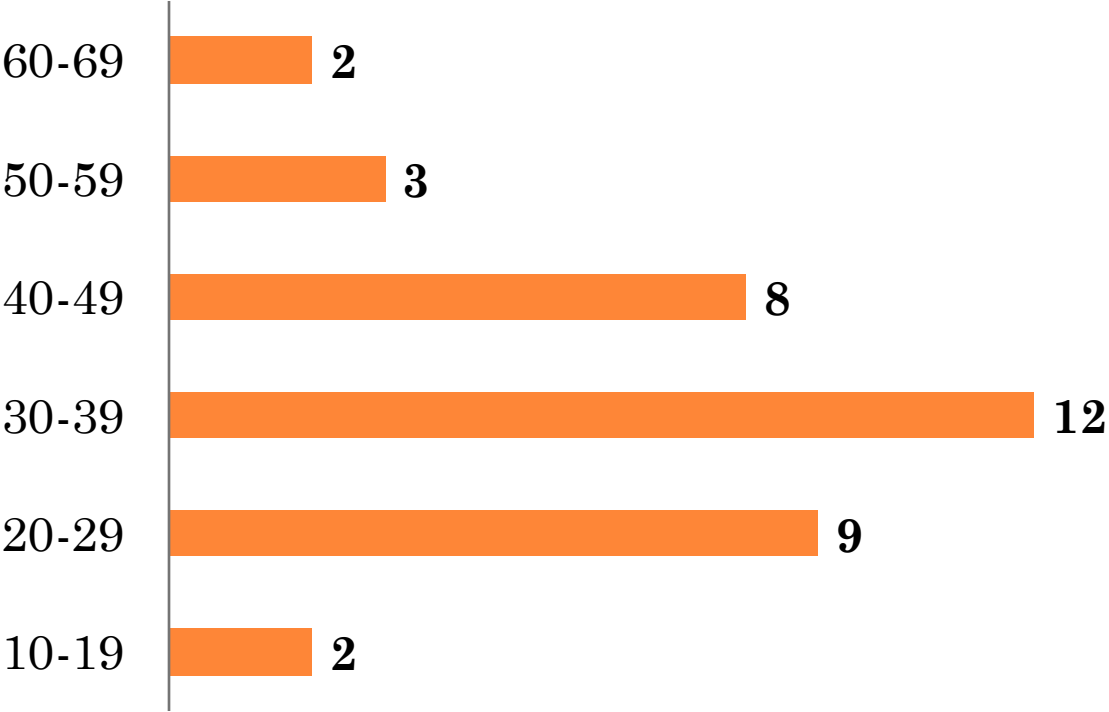
**2021**

# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION

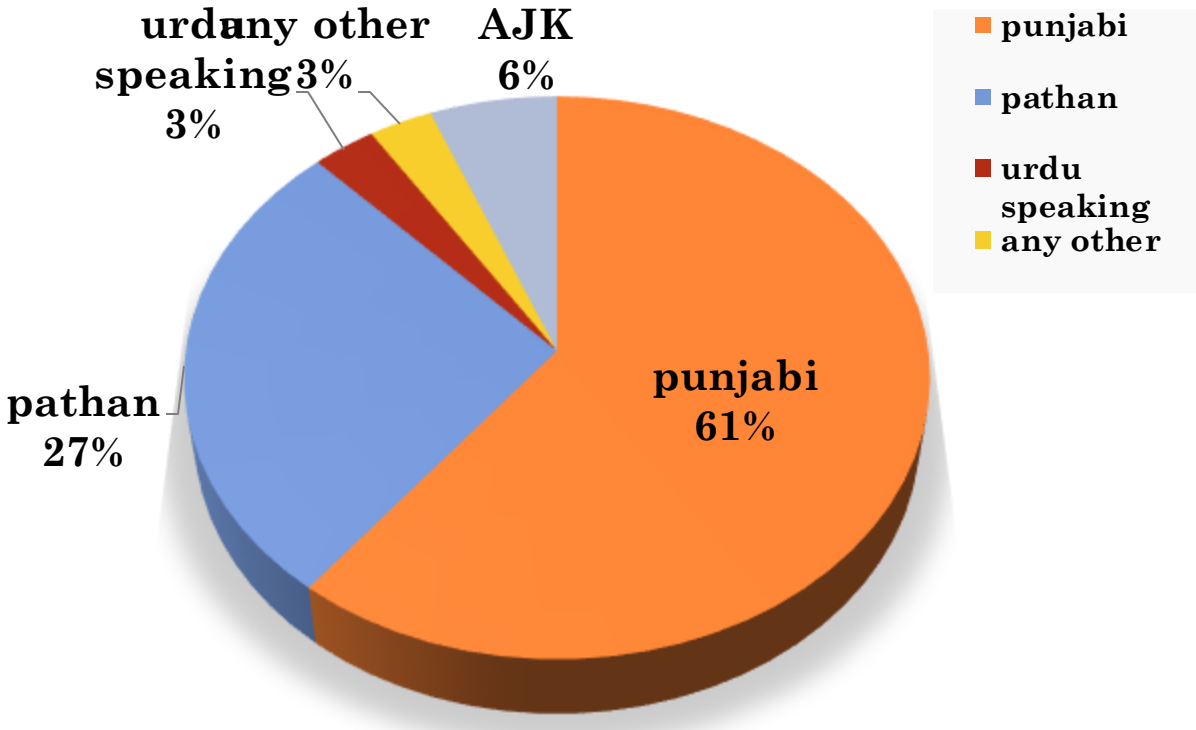
TOTAL NO OF PATIENTS	36
MALE	22
FEMALE	14



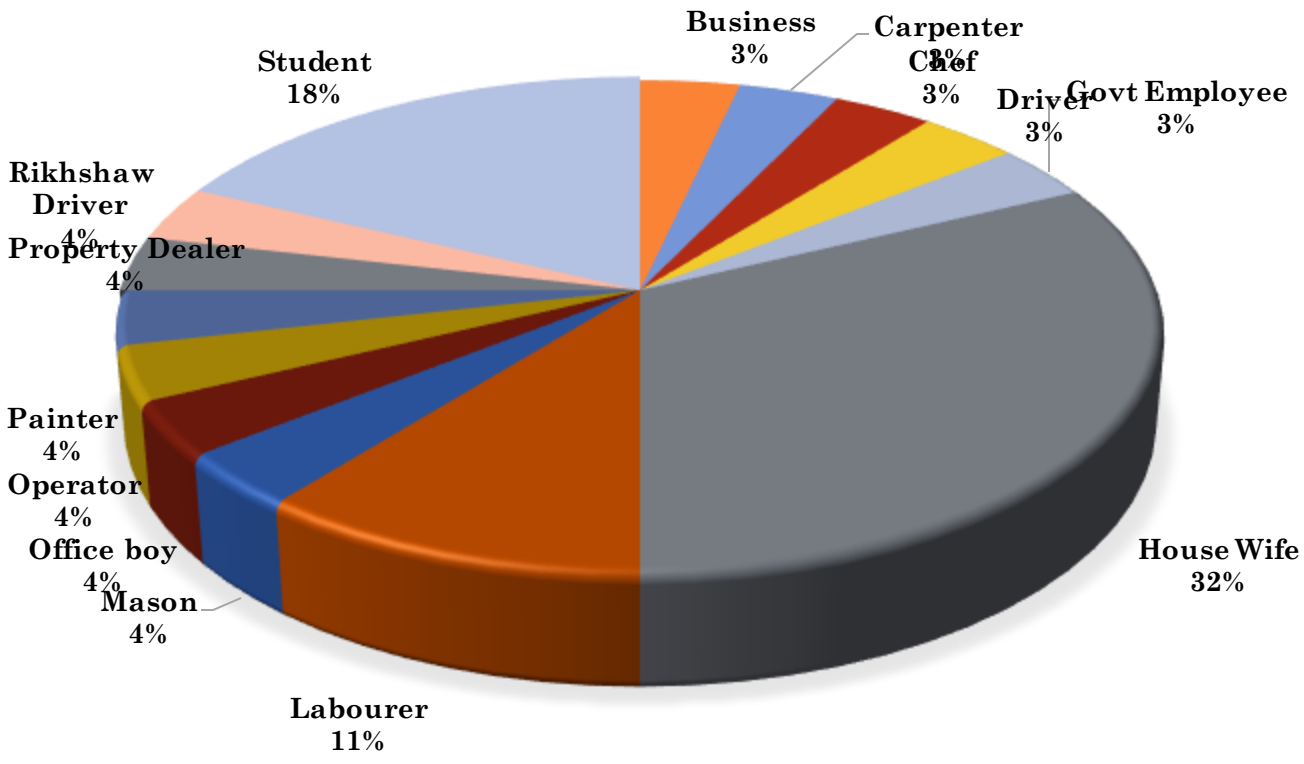
# AGE WISE DISTRIBUTION



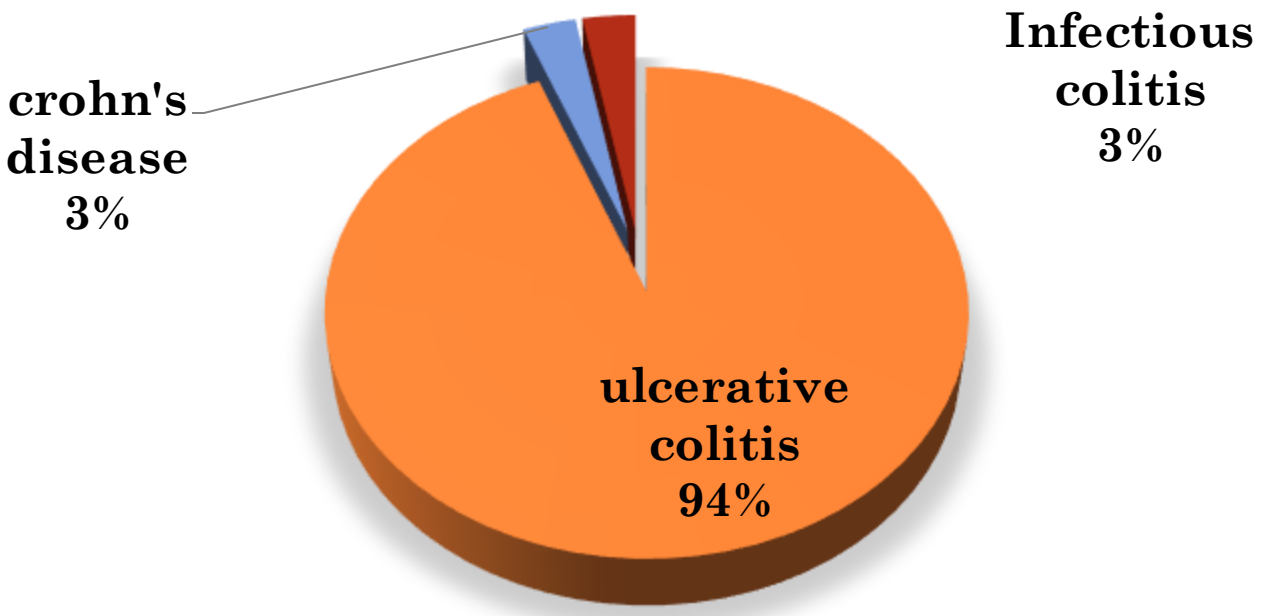
# RACE OF PATIENT



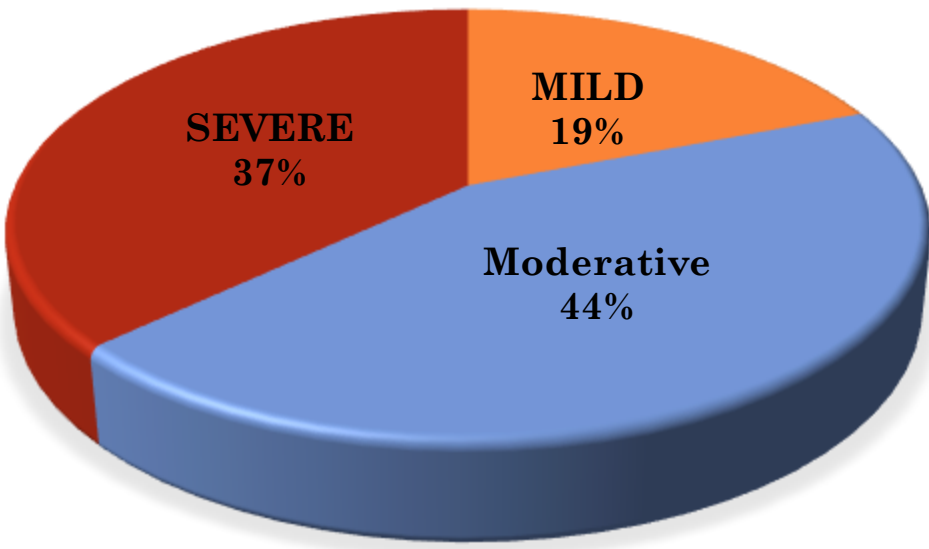
# PATIENT'S PROFESSION



# Patient's Diagnosis

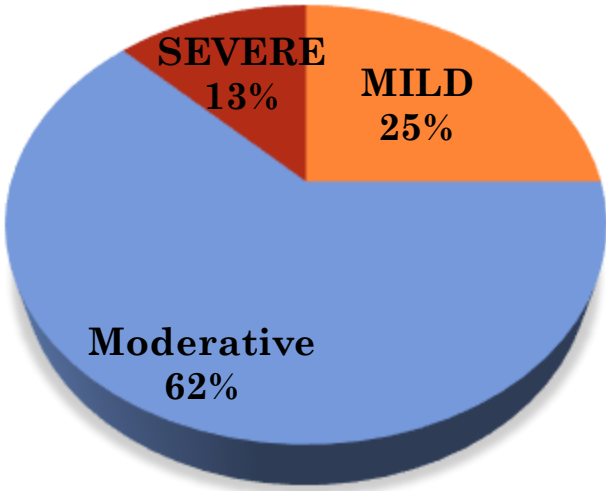


# COLONOSCOPIC SEVERITY AT PRESENTATION



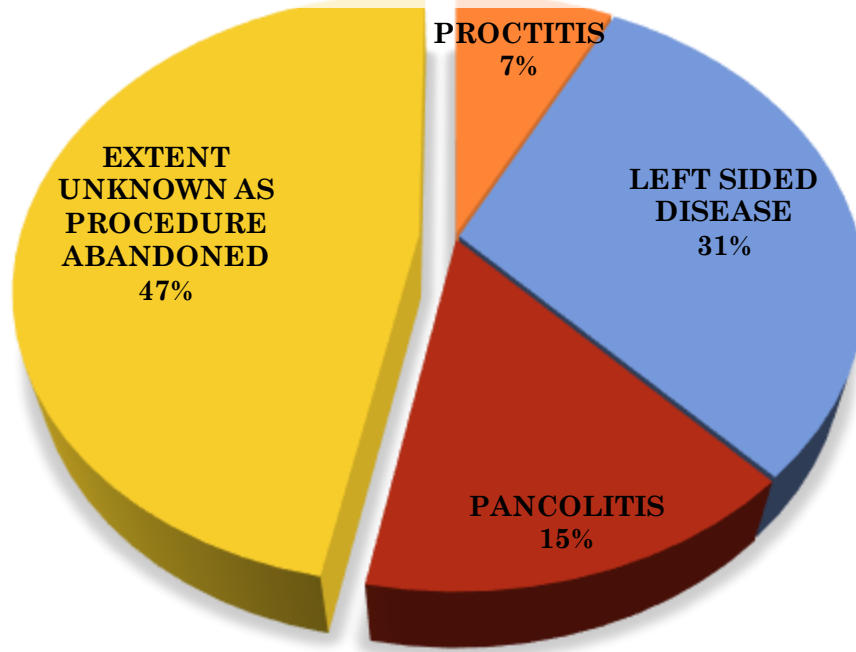
# HISTOLOGICAL SEVERITY AT PRESENTATION

- MILD
- Moderative
- SEVERE



# EXTENT OF DISEASE AT PRESENTATION

- *PROCTITIS*
- *LEFT SIDED DISEASE*
- *PANCOLITIS*
- *EXTENT UNKNOWN AS PROCEDURE ABANDONED*

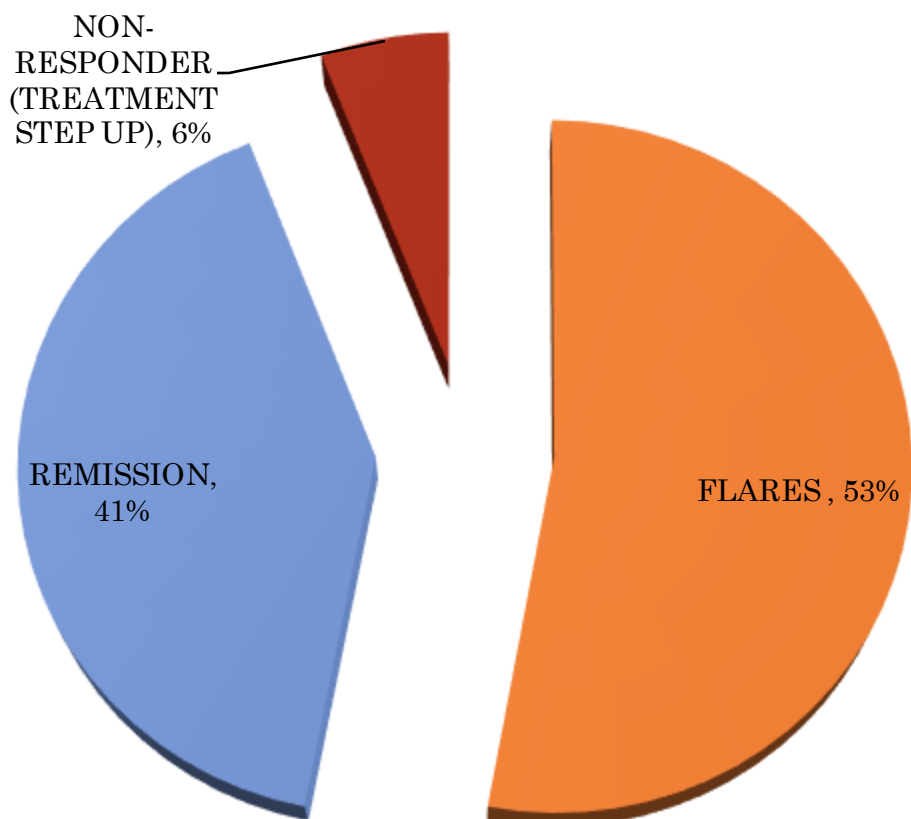


## TREATMENT OFFERED



# FOLLOW UP IN IBD CLINIC:

Total Patients register in IBD Clinic since 2015	170
Follow up Patients in IBD clinic year 2020	61

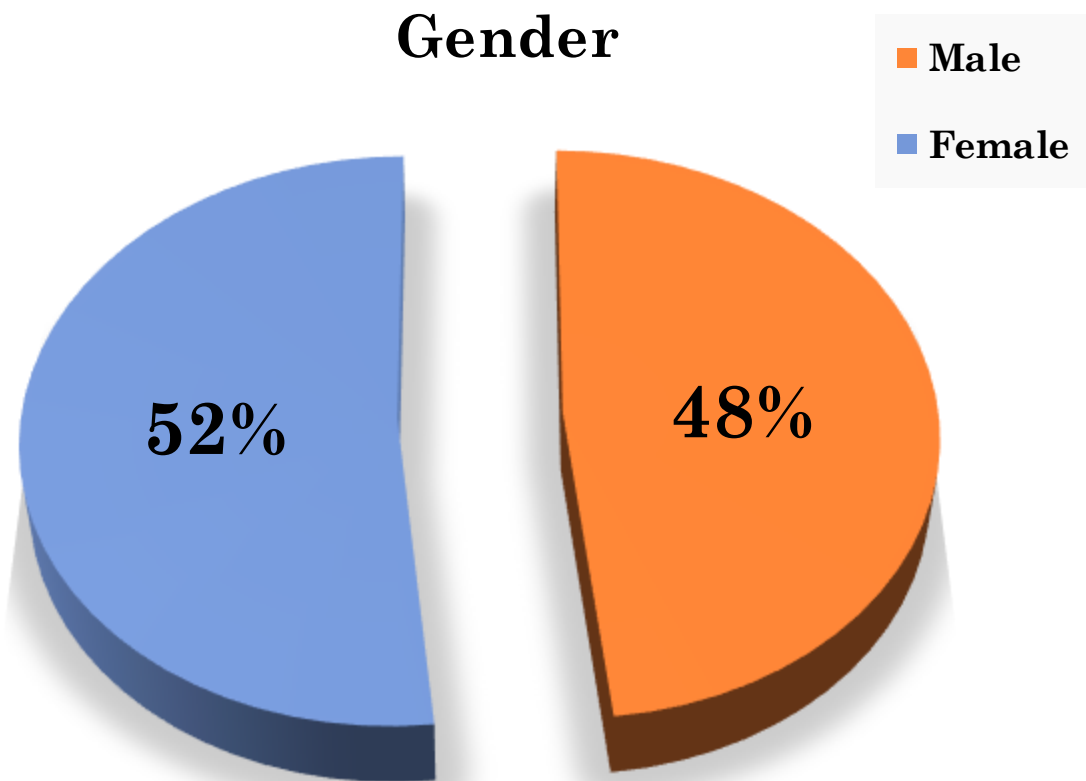




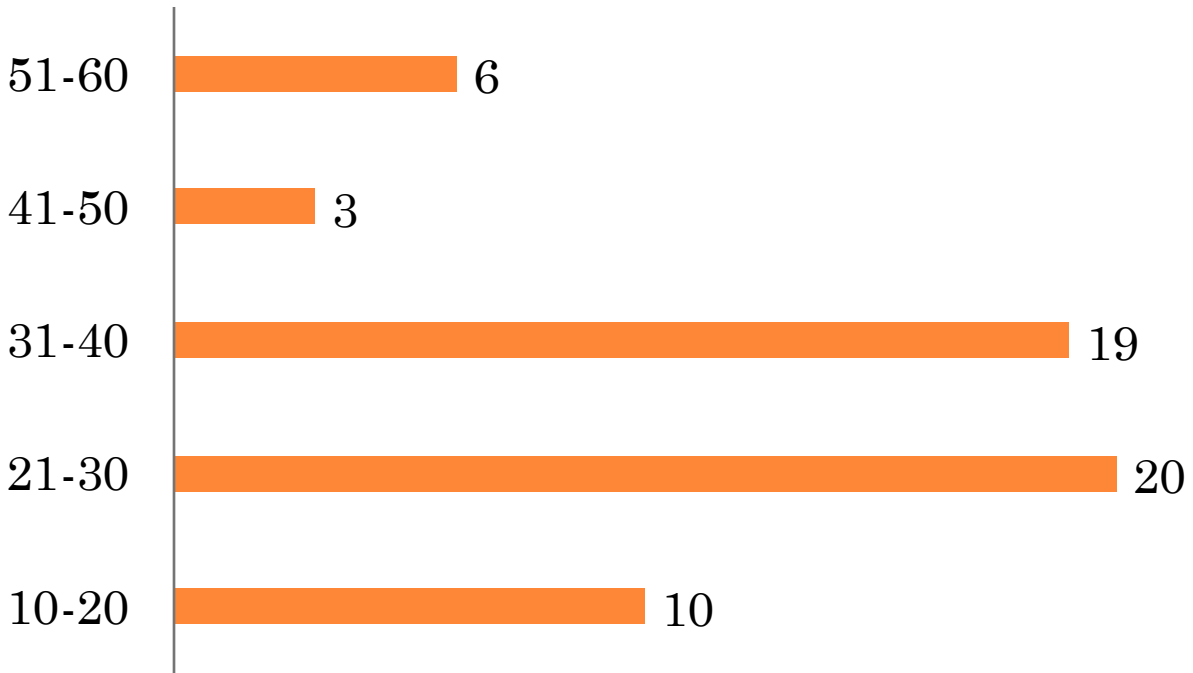
**2022**

# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION

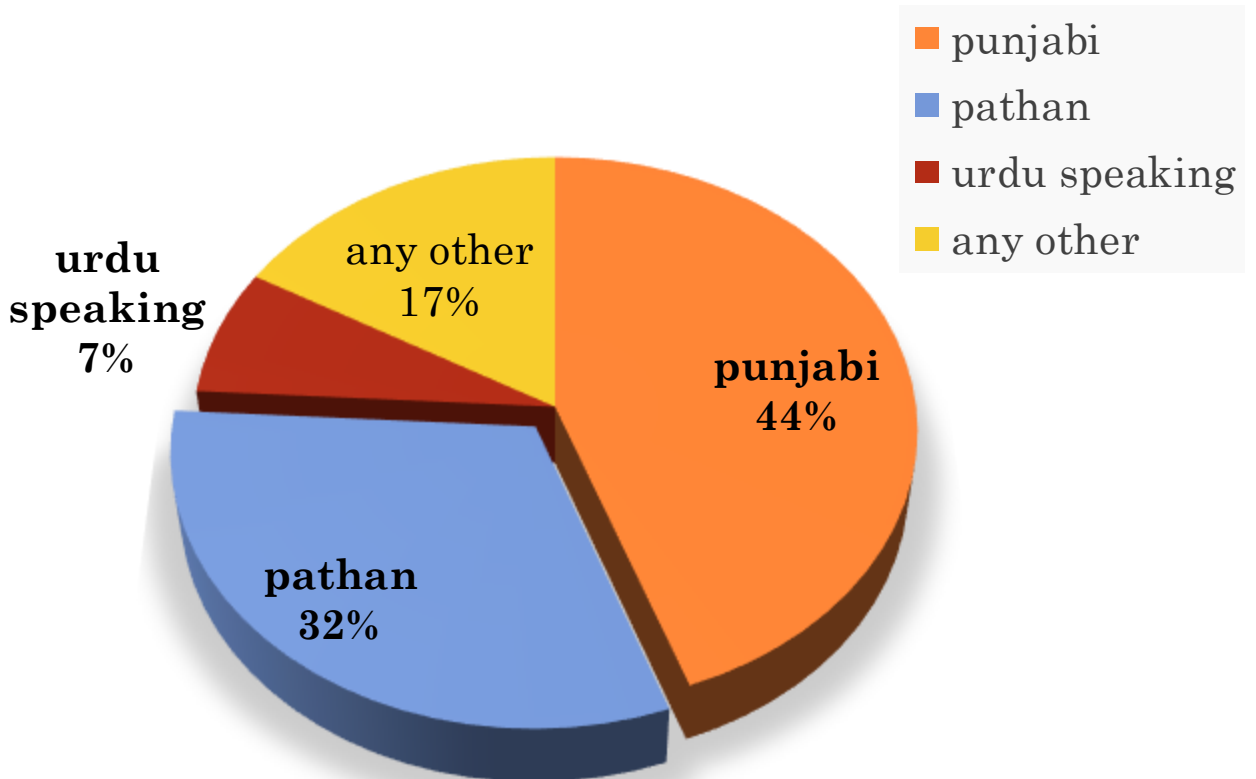
Total No of Patients	58
Male	28
Female	30



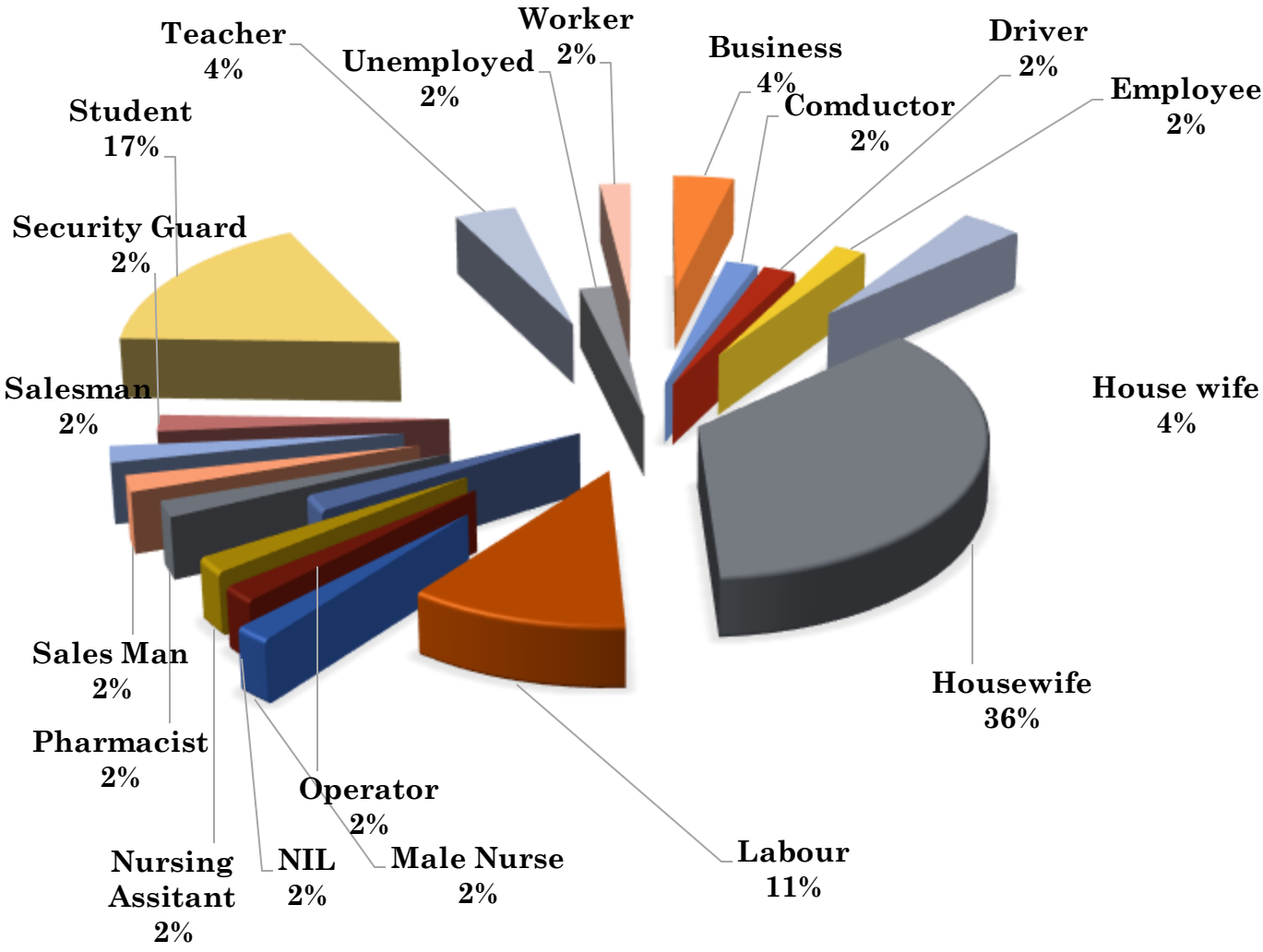
# Age Wise Distribution



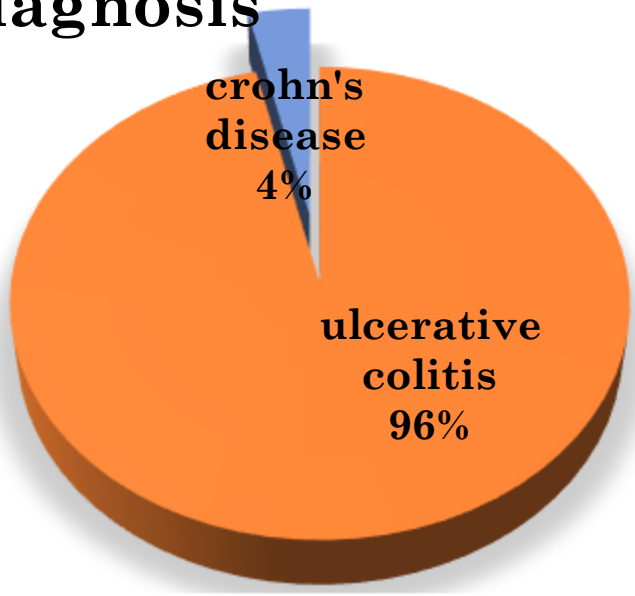
# RACE OF PATIENT



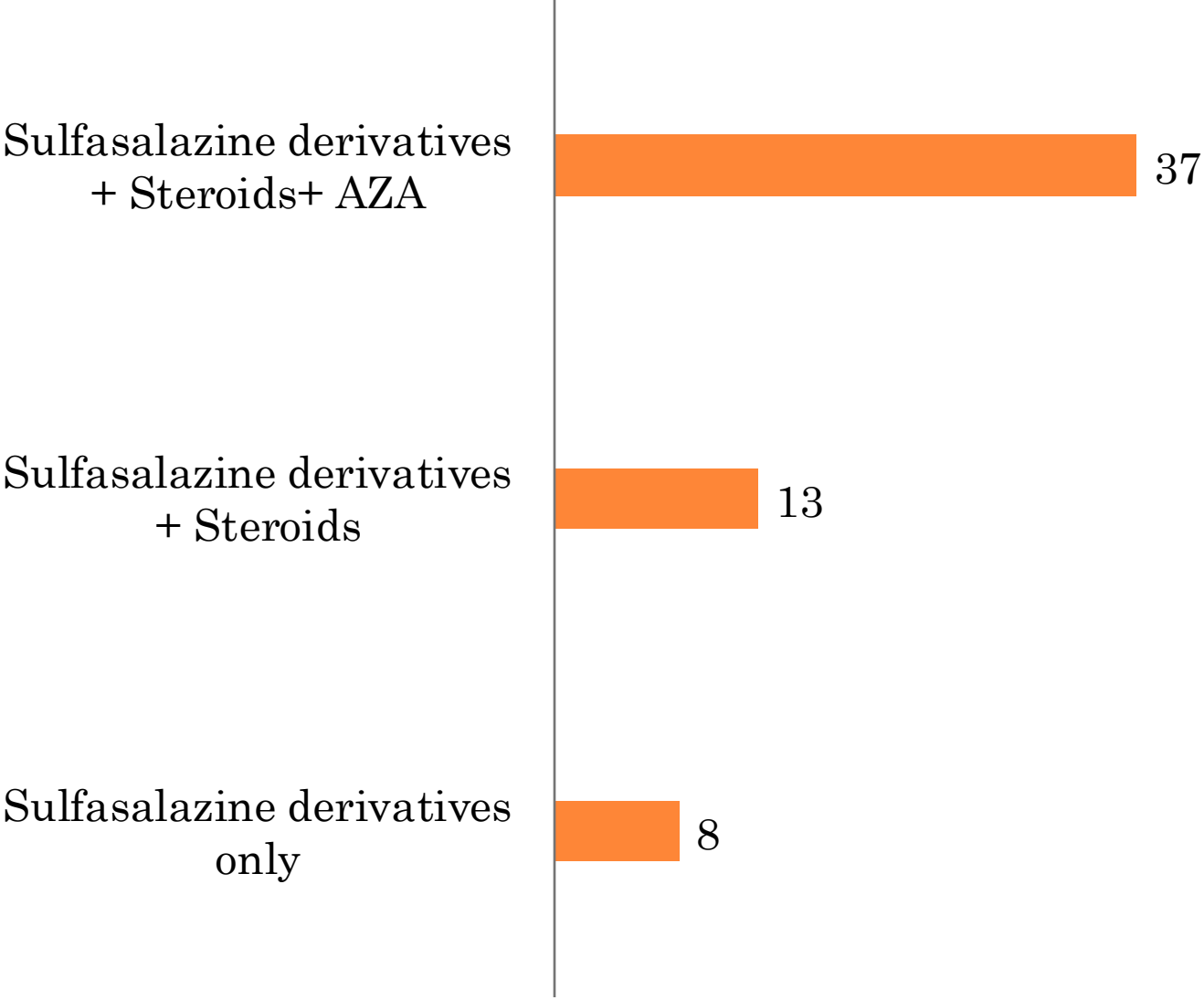
# PATIENT'S PROFESSION



# Patient's Diagnosis

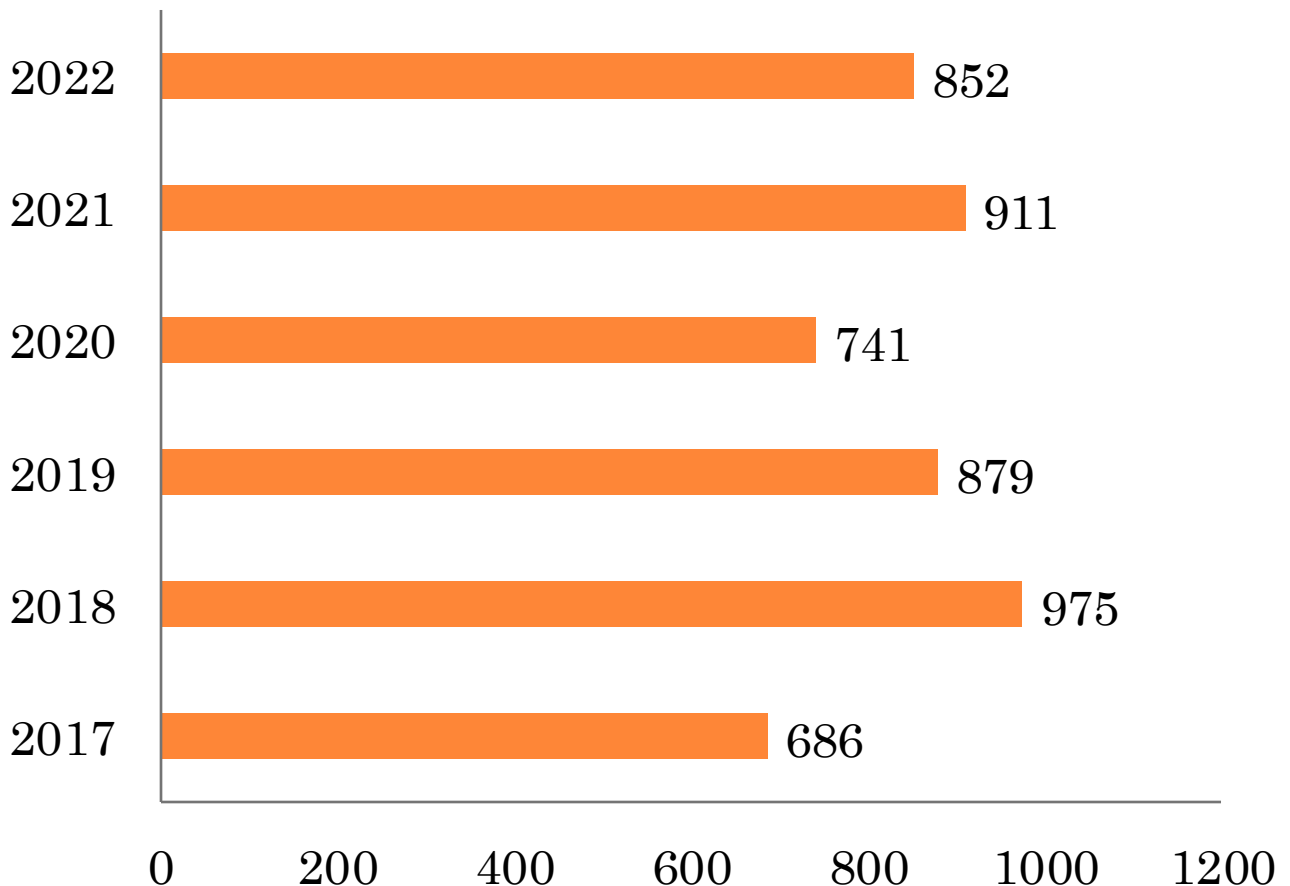


# TREATMENT OFFERED



# Indoor/Ward Audit

Centre for liver and Digestive Diseases has established its own 14 bedded Indoor ward since March 2017. With a total of 852 patients in 2022, our unit has admitted approx. 80 plus patients per month. The total number of inpatient days were 3588 whereas the bed occupancy rate was 70.21%. Maximum burden of Indoor patients, depicting more serious illness, ranges from 40 to 60 years of age group and males are predominantly involved. This is the age group providing main economic support to their families. Being most prevalent country in Hepatitis C, the picture is aptly depicted through our data with DCLD being the commonest diagnosis followed by obstructive jaundice and acute pancreatitis.



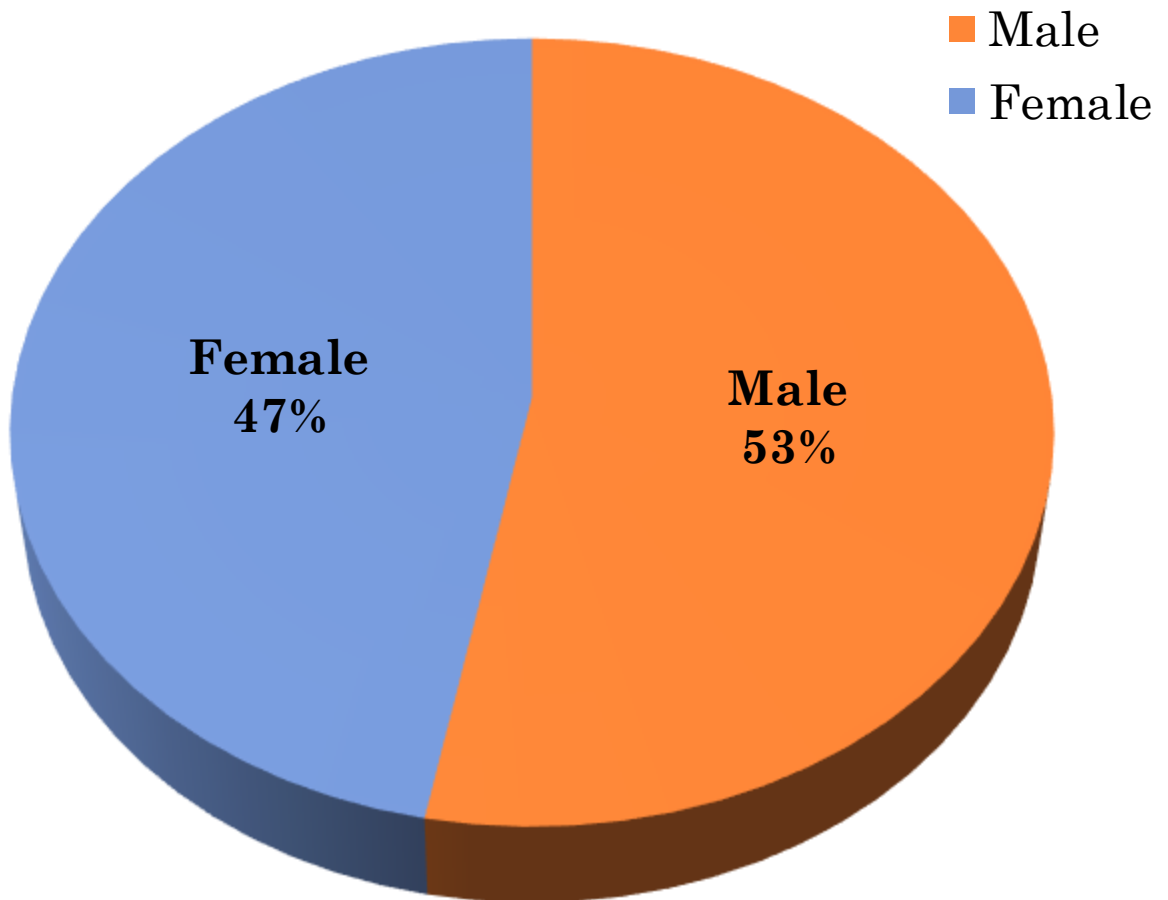
**2020**

**2021**

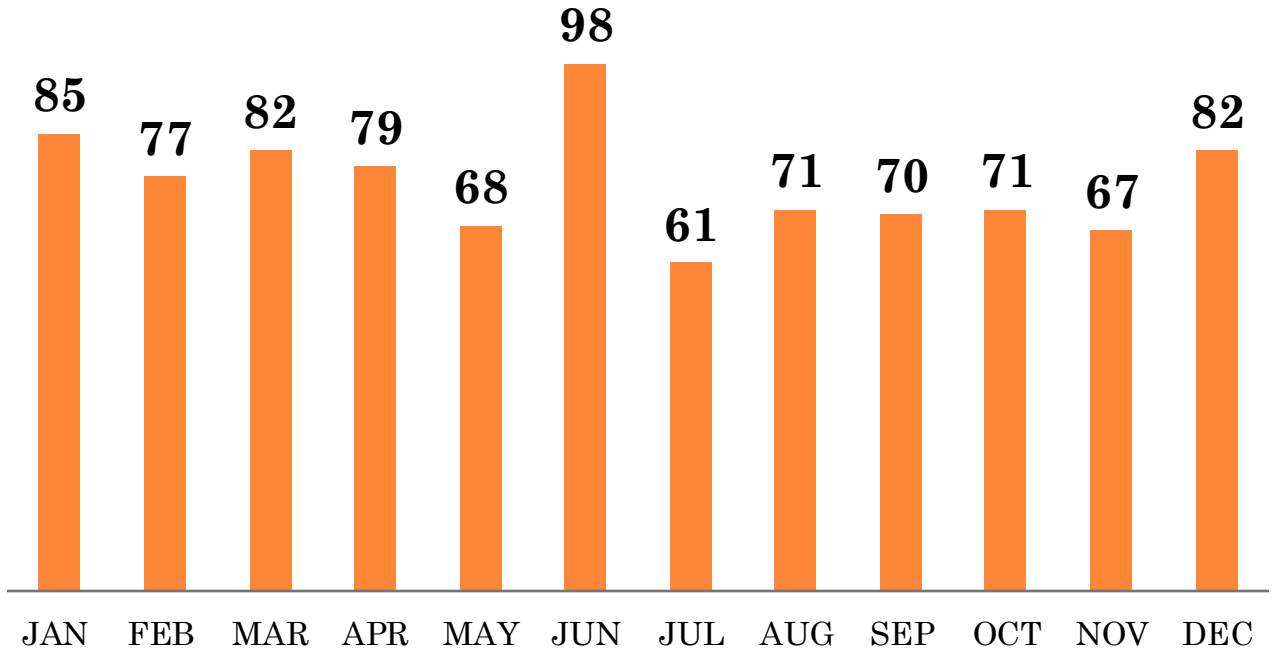


# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION

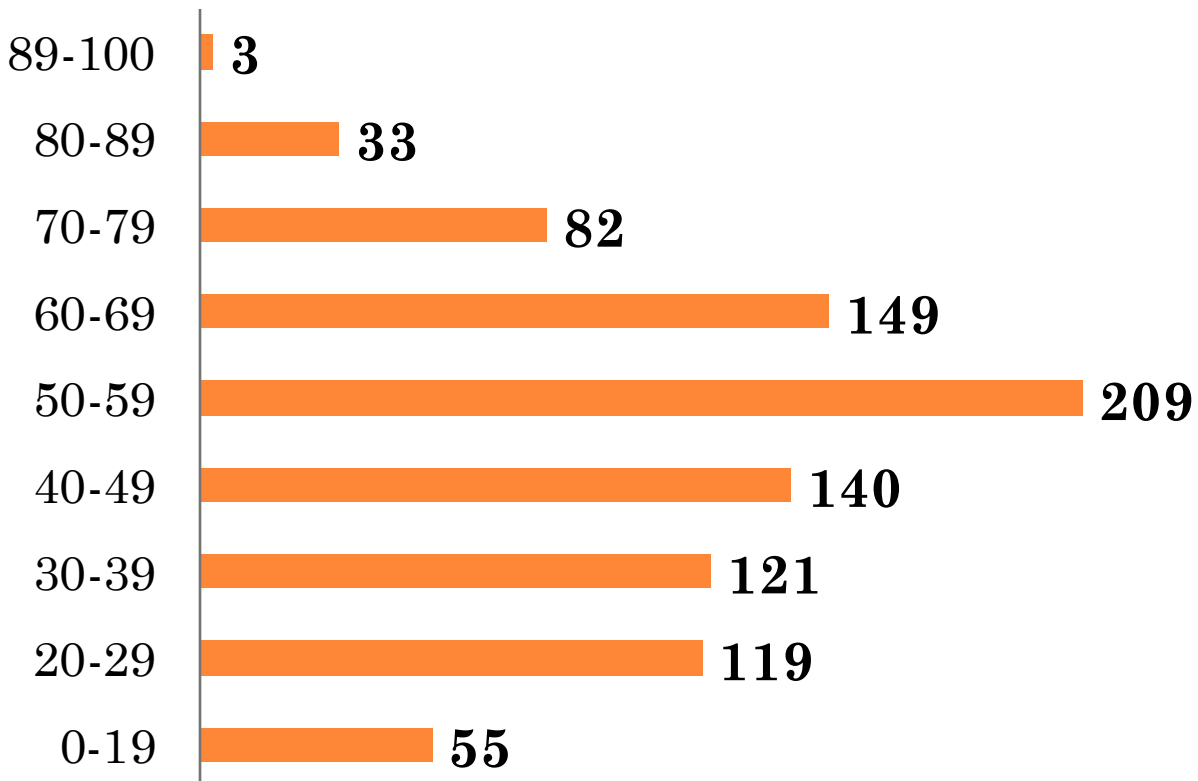
<b>Total No of Patients</b>	<b>911</b>
<b>Male</b>	<b>483</b>
<b>Female</b>	<b>428</b>



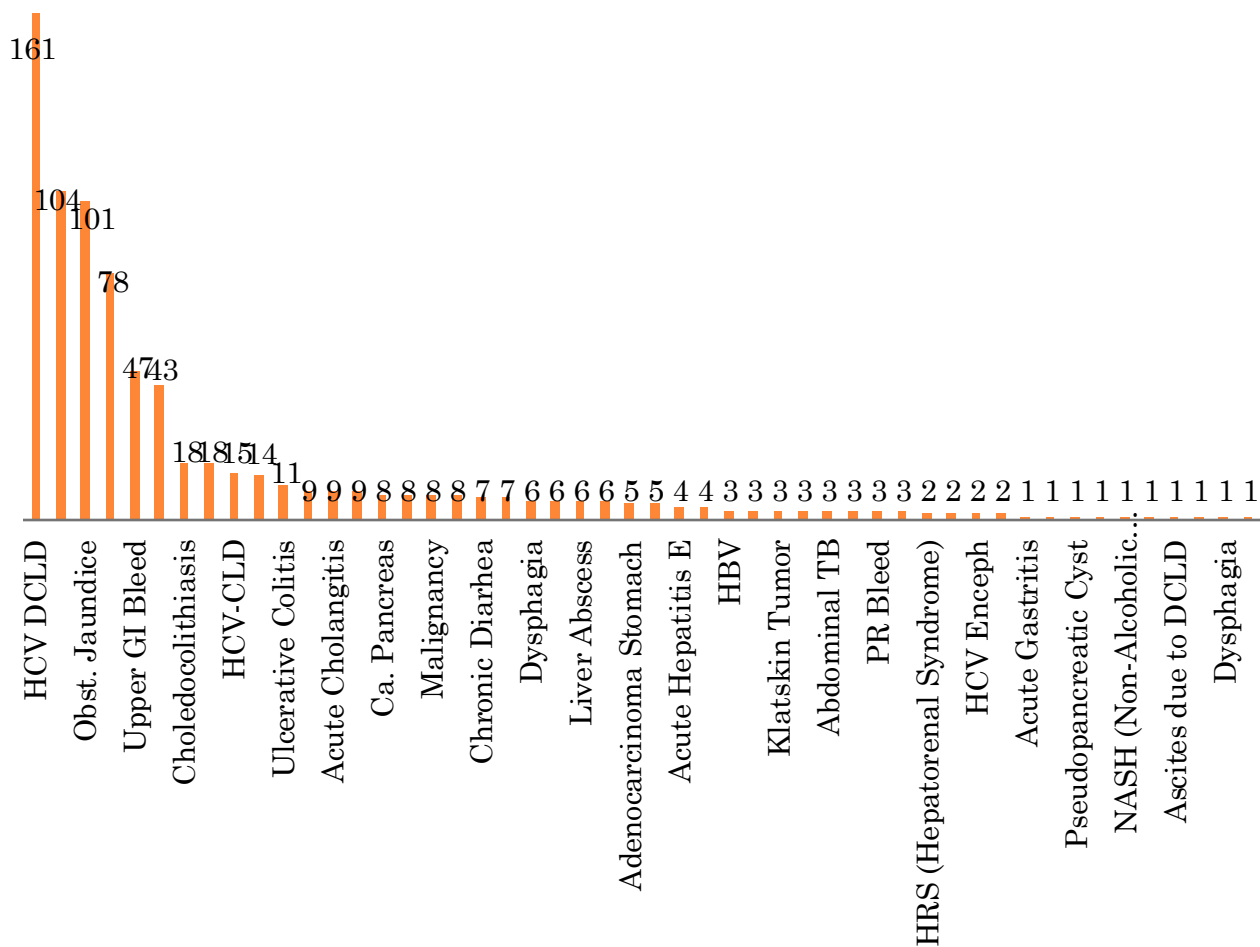
# MONTHLY DISTRIBUTION



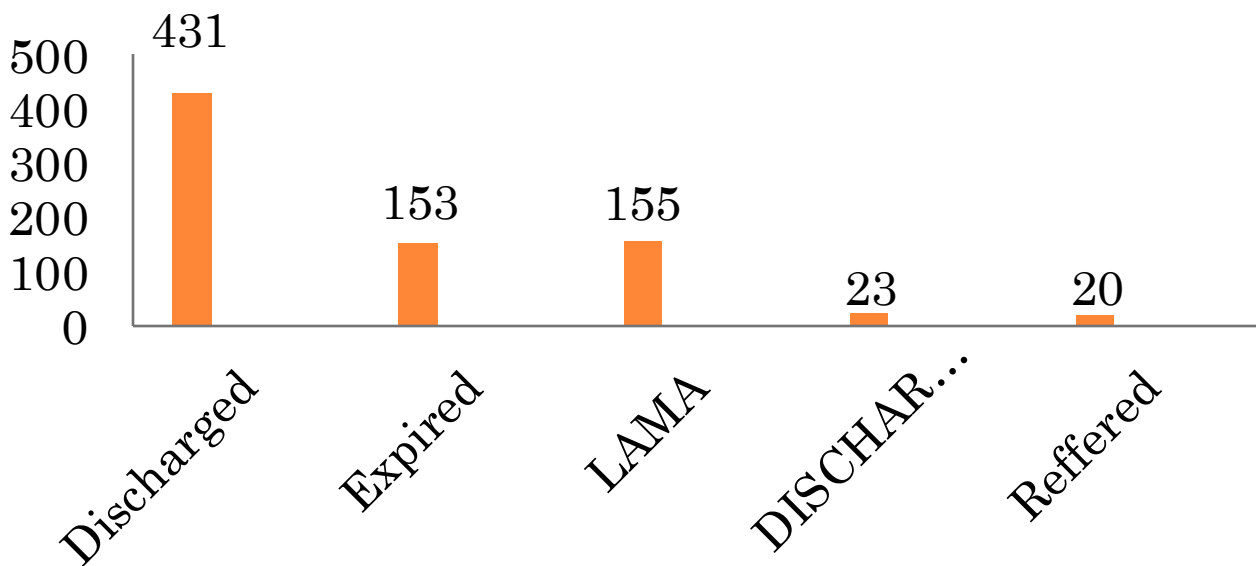
## Agewise Distribution



# DIAGNOSIS



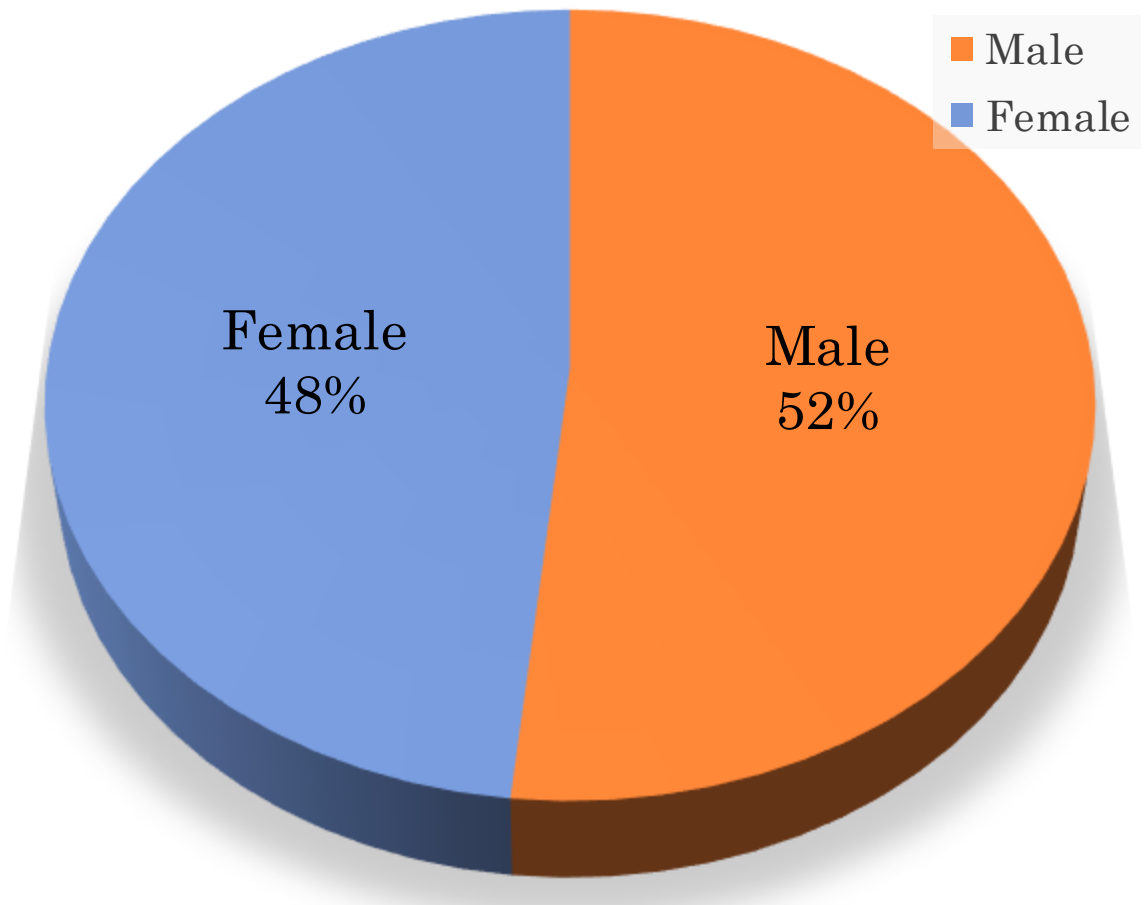
# OUTCOME



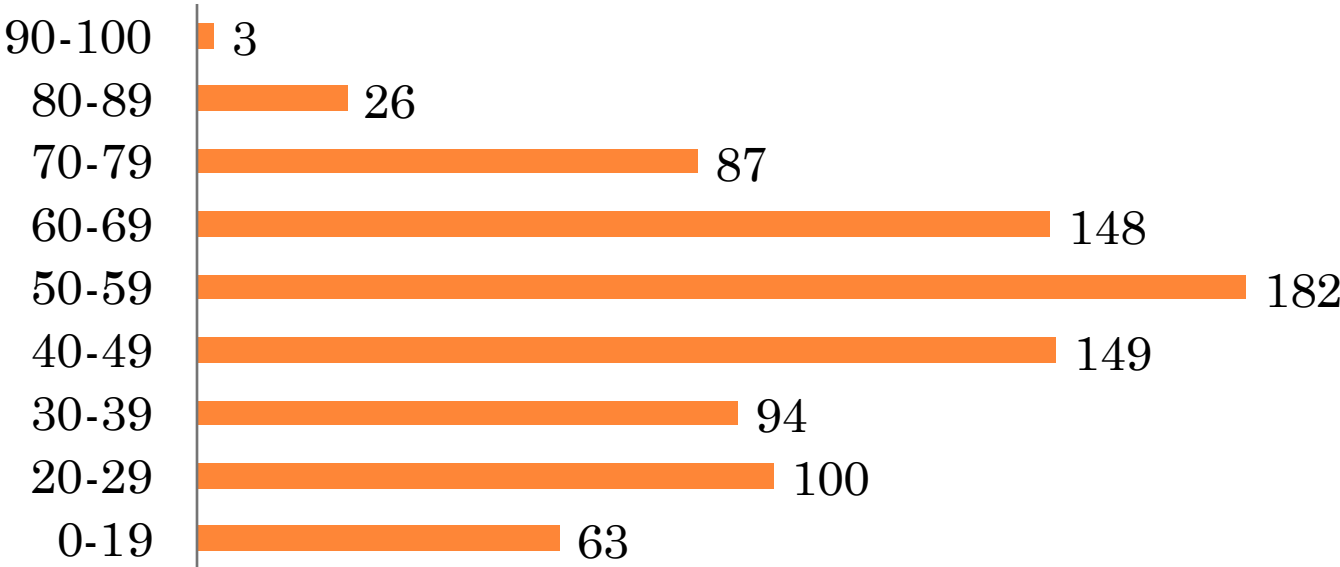
**2022**

# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION.

Total No of Patients	852
Male	440
Female	412

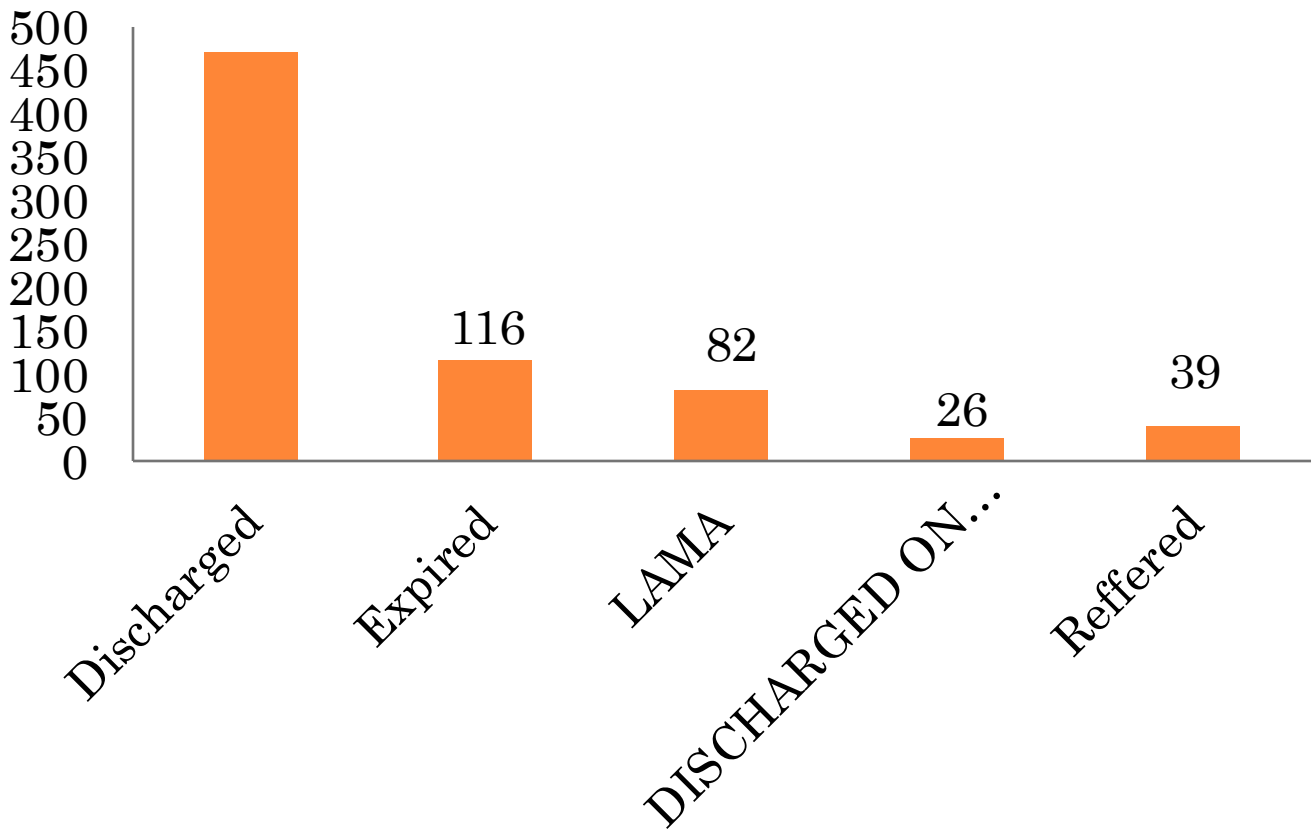


# AGE WISE DISTRIBUTION

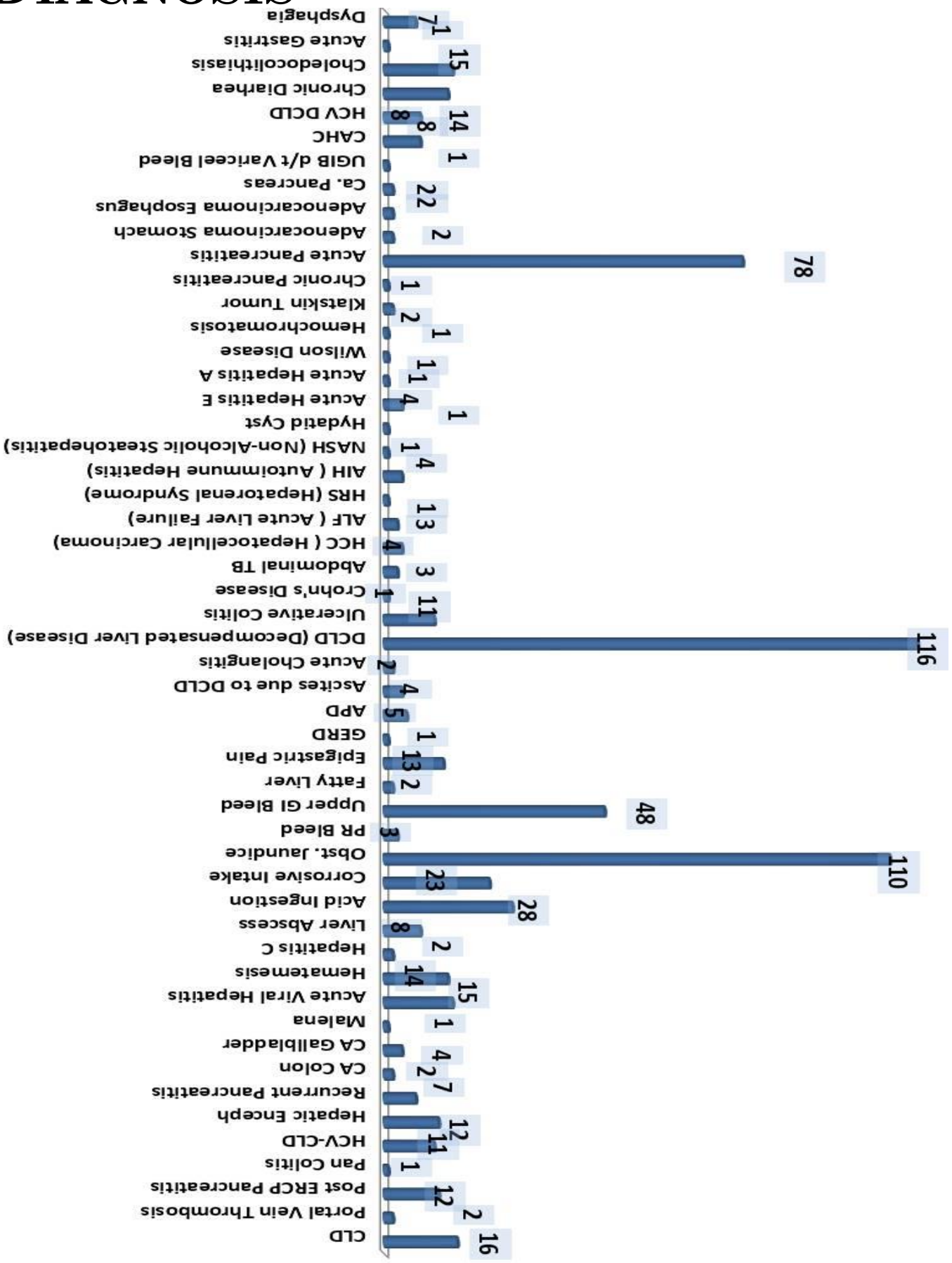


# OUTCOME

470



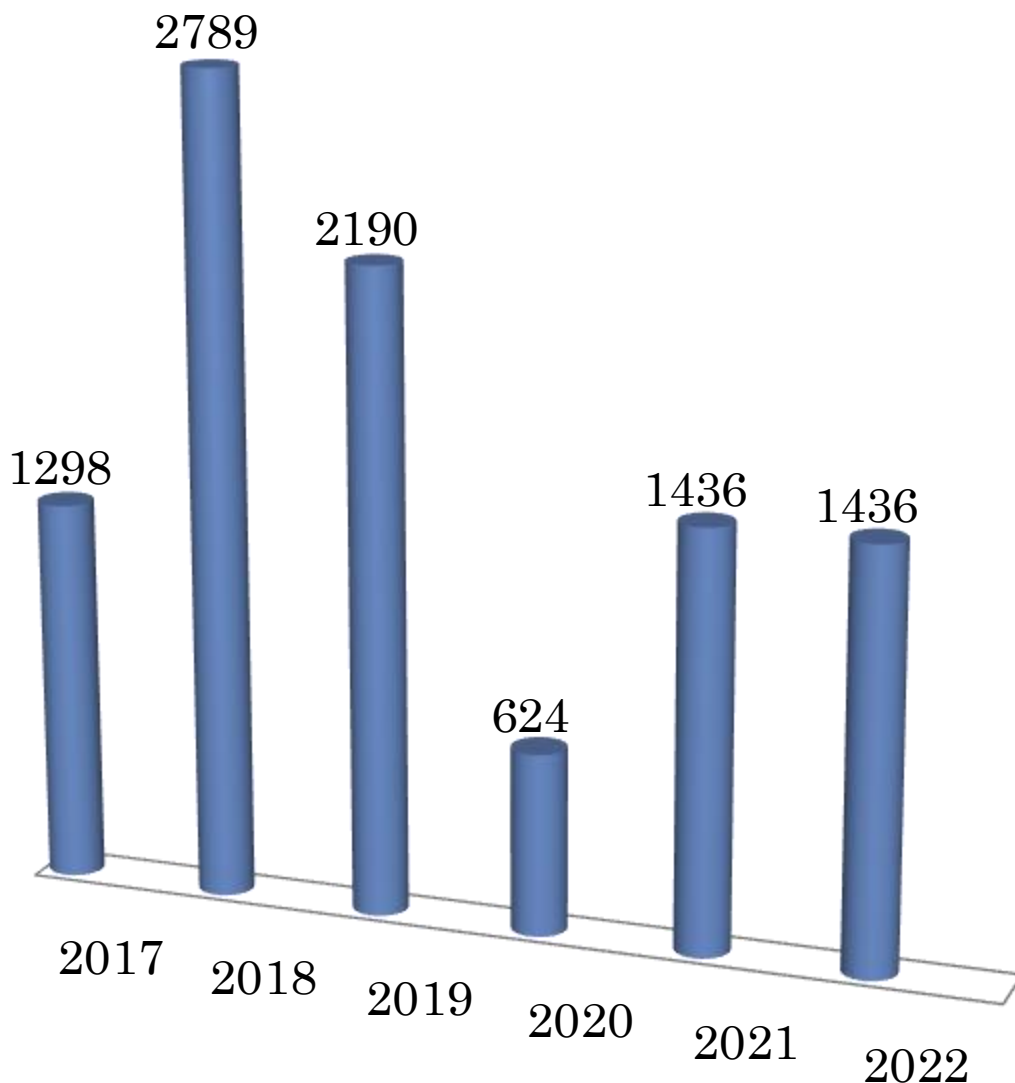
# DIAGNOSIS



# Emergency Audit

Gastroenterology department provides round the clock emergency services to the GI patients , seven days a week. In the COVID year there was some decline in the ER cases, which reverted back in year 2021-22.

Upper GI bleed is the commonest emergency dealt by Gastroenterology team on floor, followed by encephalopathy and pain abdomen. ER mortality is about 2.2%.





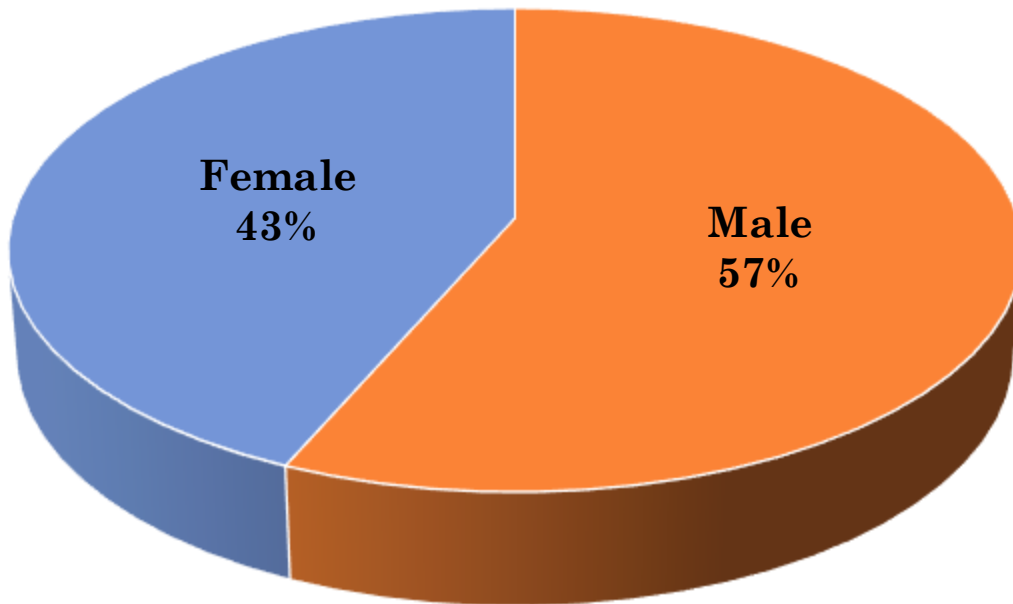
**2020**

# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION

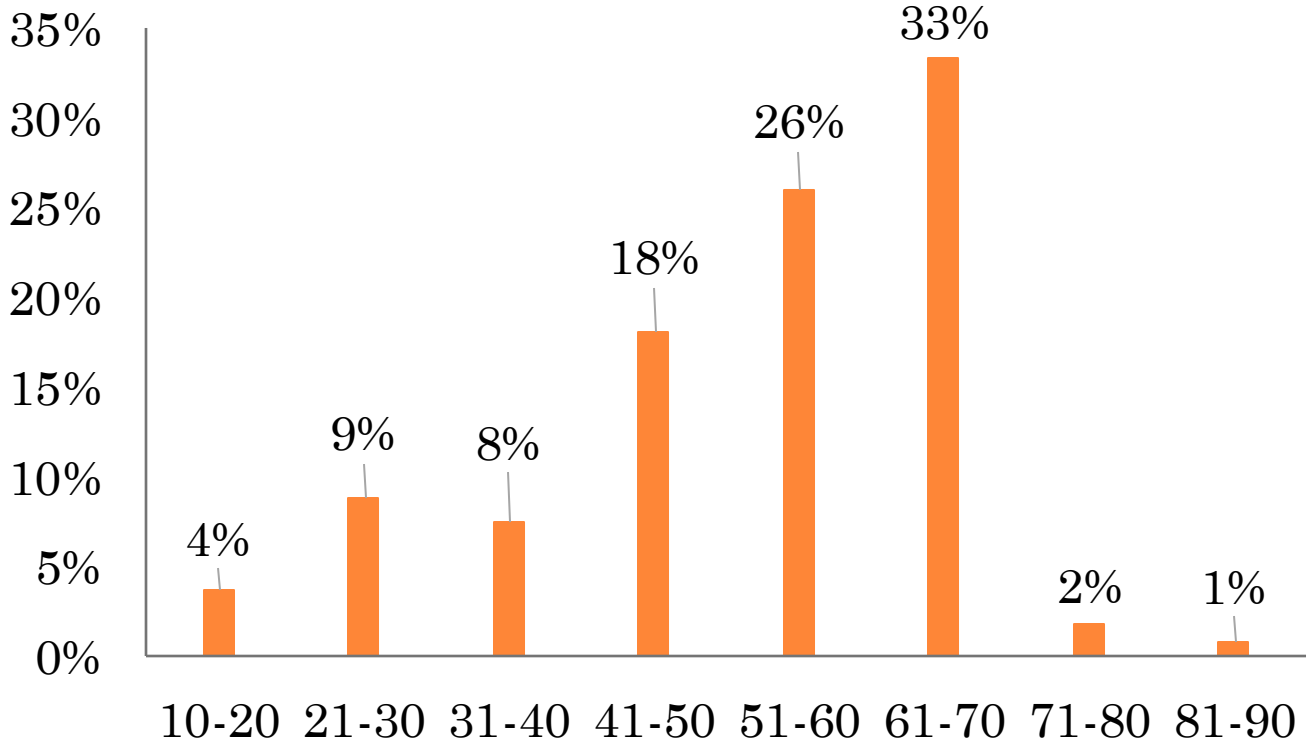
<b>Total No of Patients</b>	<b>624</b>
<b>Male</b>	<b>353</b>
<b>Female</b>	<b>271</b>

## Gender

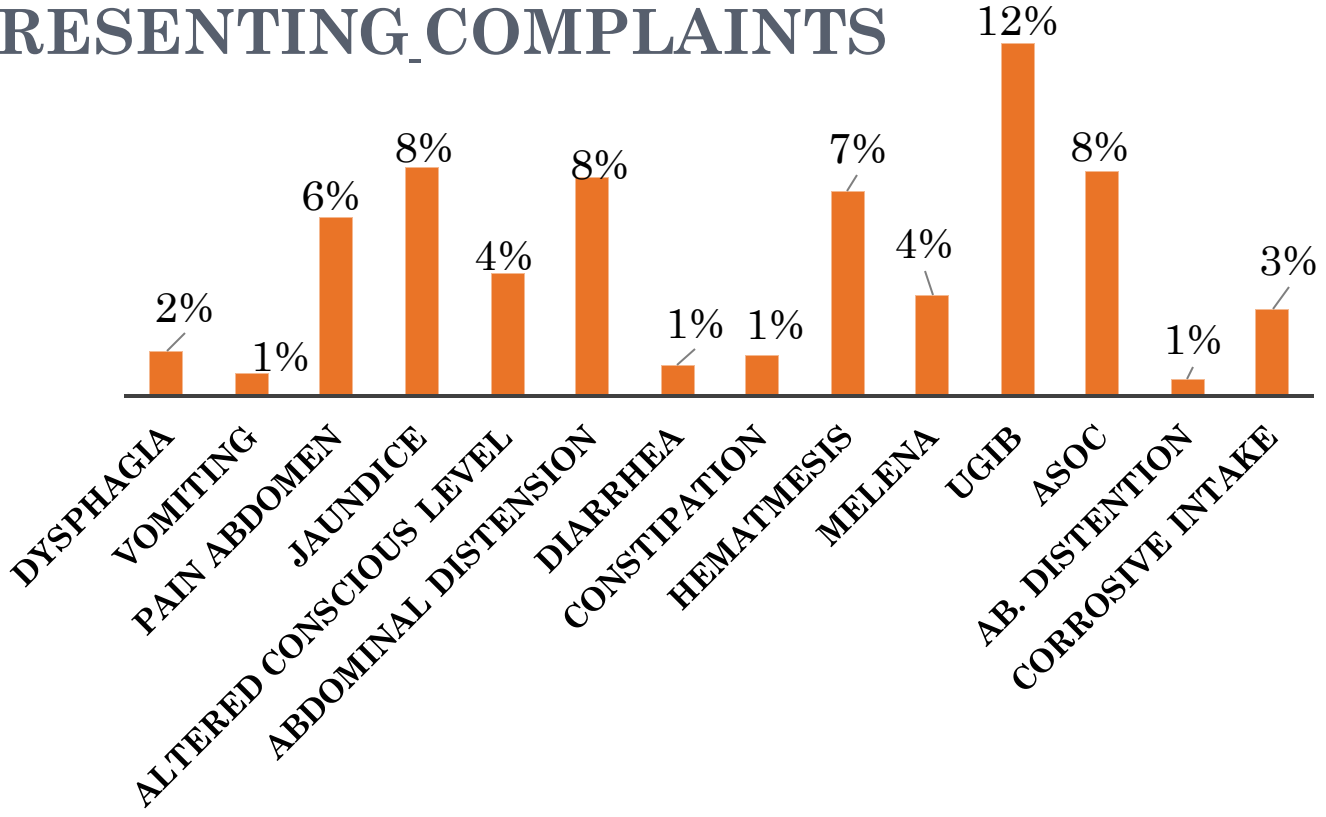
- Male
- Female



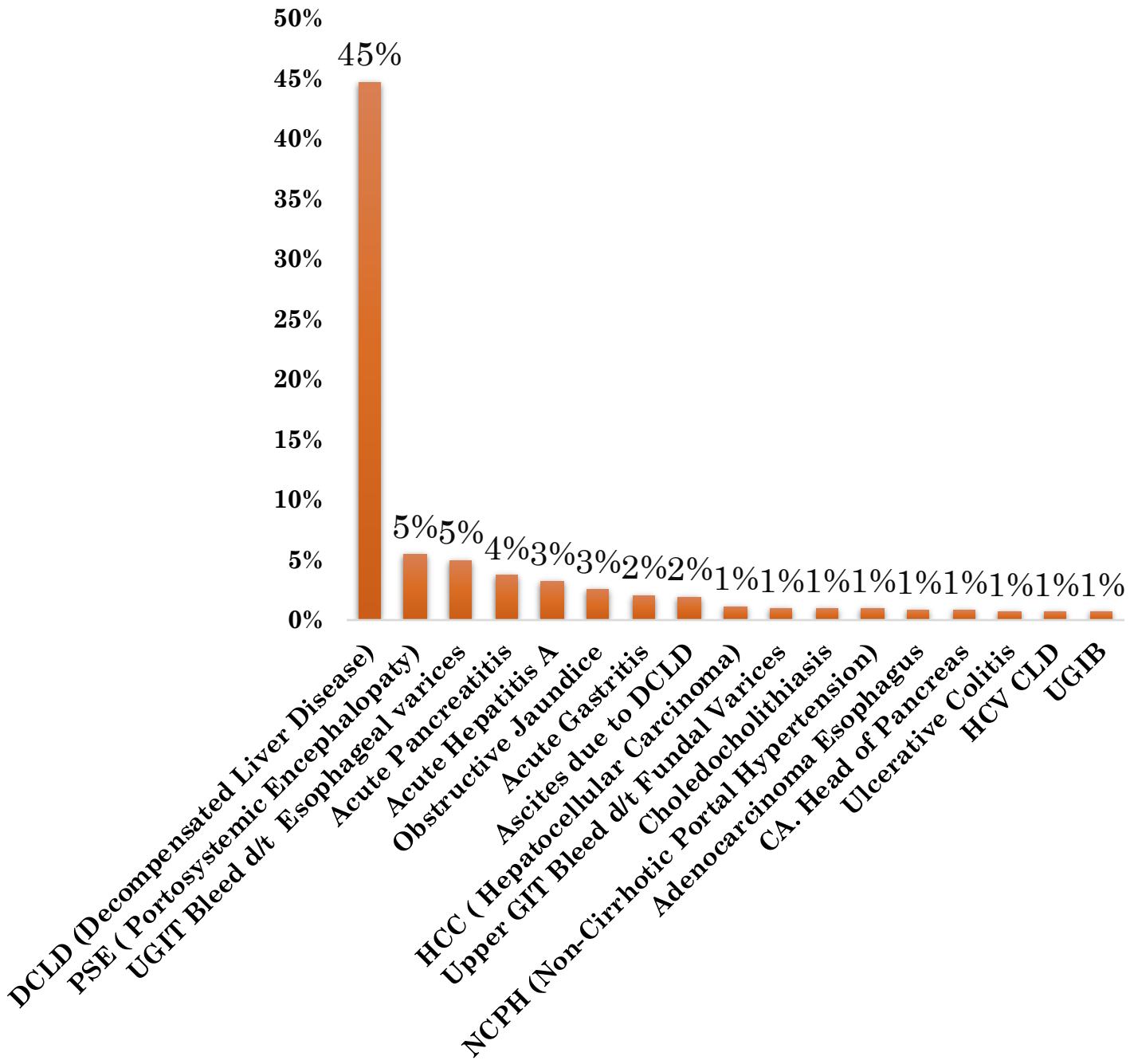
# AGE WISE DISTRIBUTION



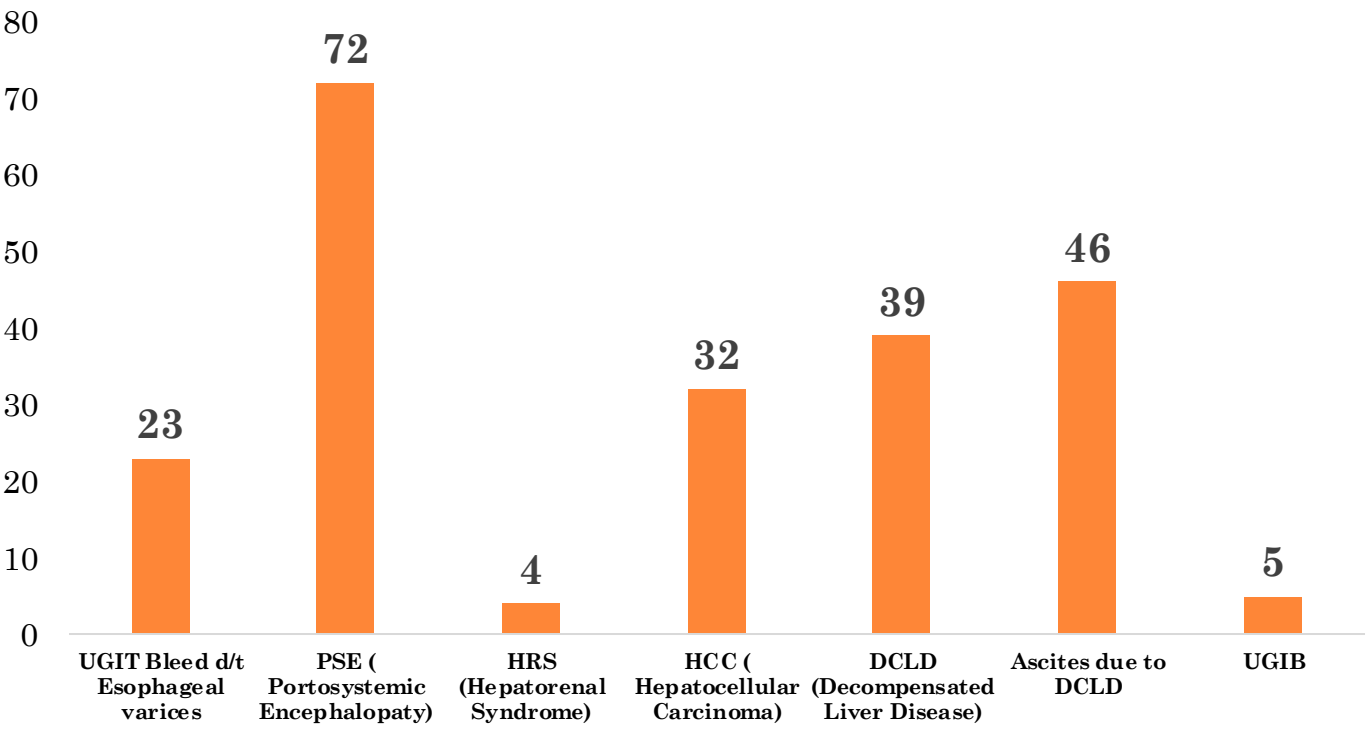
# PRESENTING\_COMPLAINTS



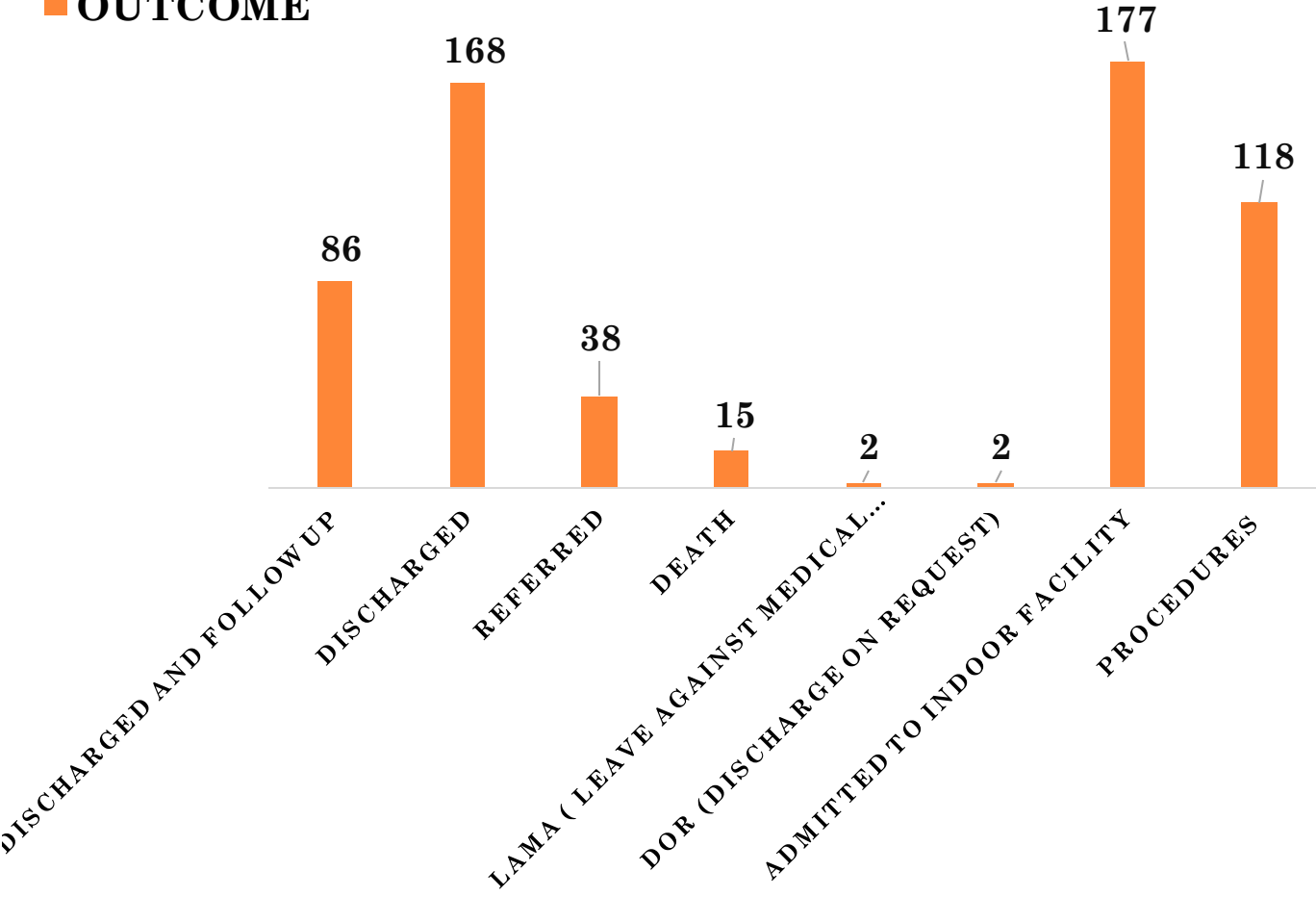
# PRIMARY DAIGNOSIS



# SECONDARY DIAGNOSIS



**OUTCOME**



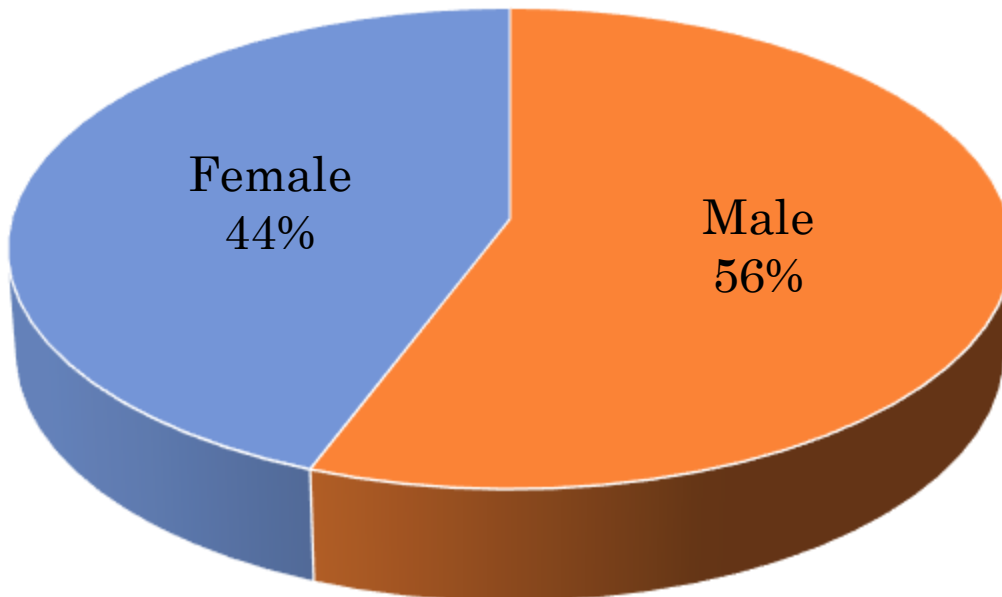
**2021**

# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION

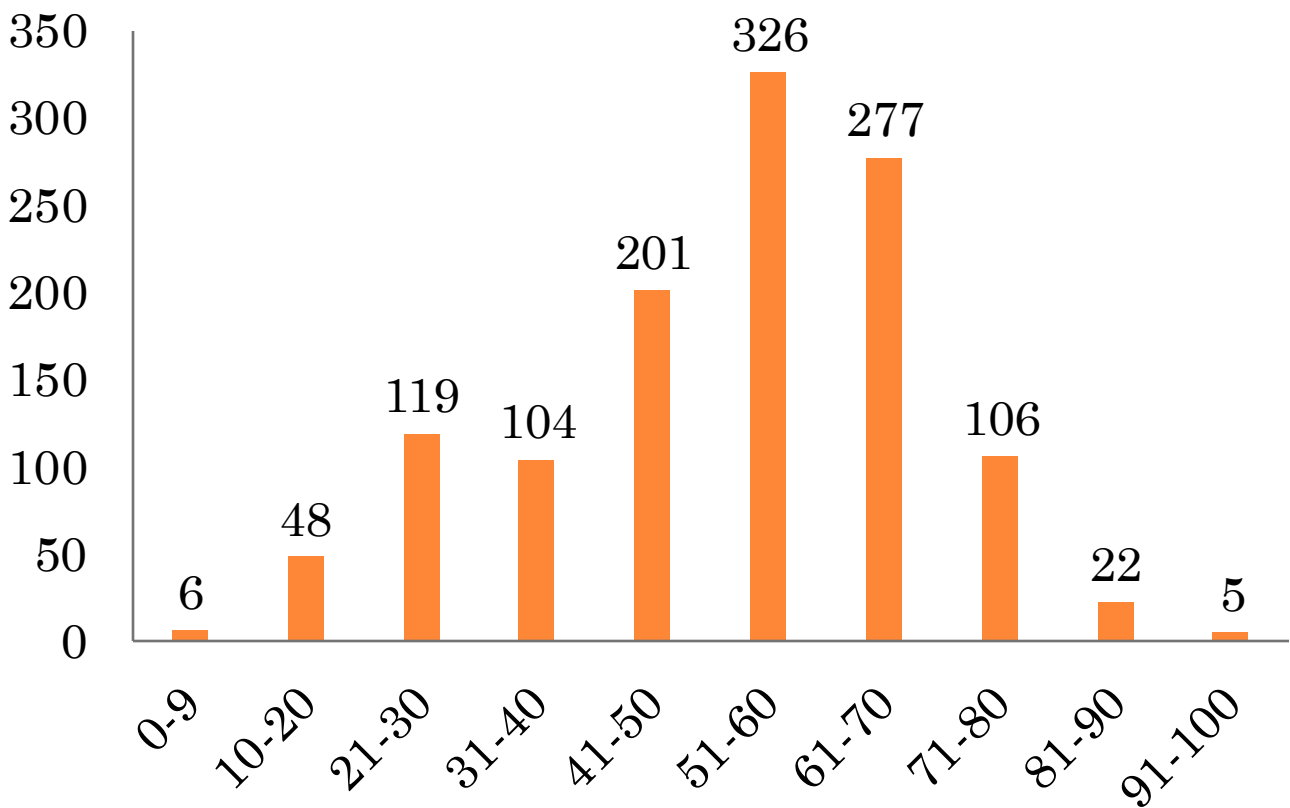
Total No of Patients	1214
Male	677
Female	537

Gender

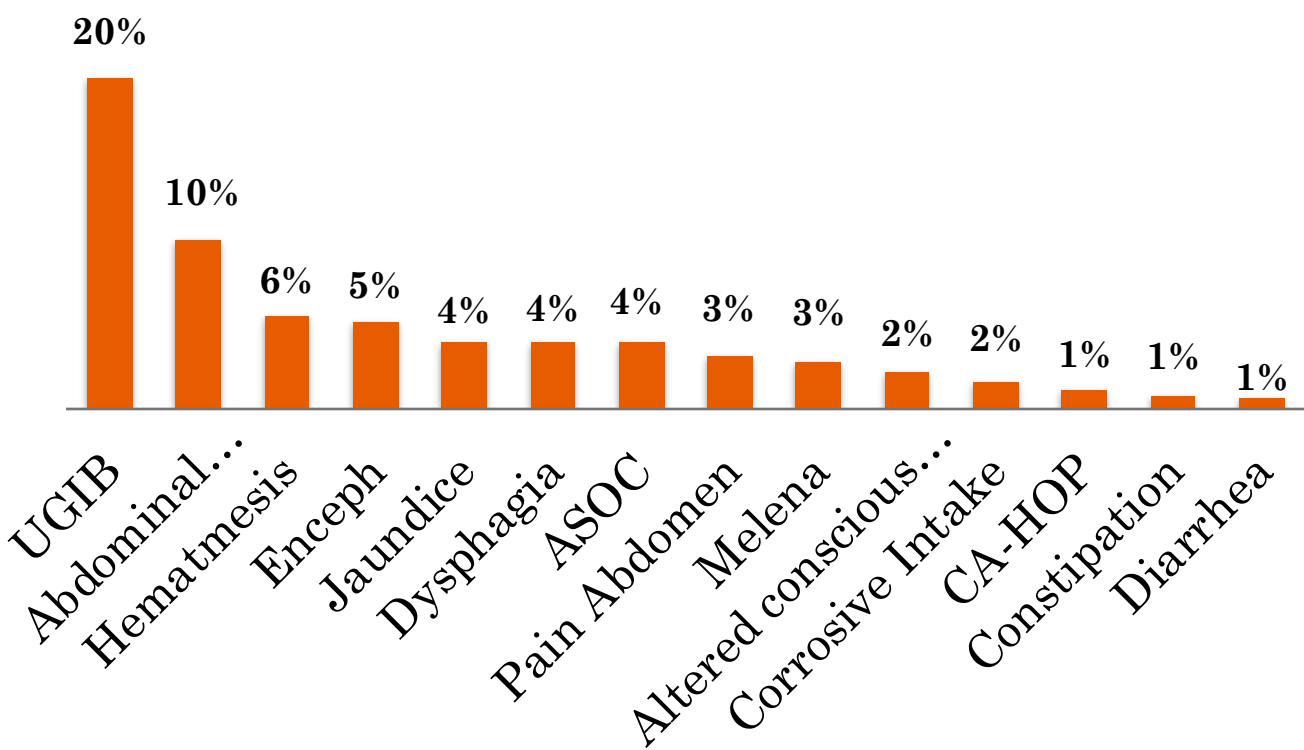
■ Male  
■ Female



# AGE WISE DISTRIBUTION

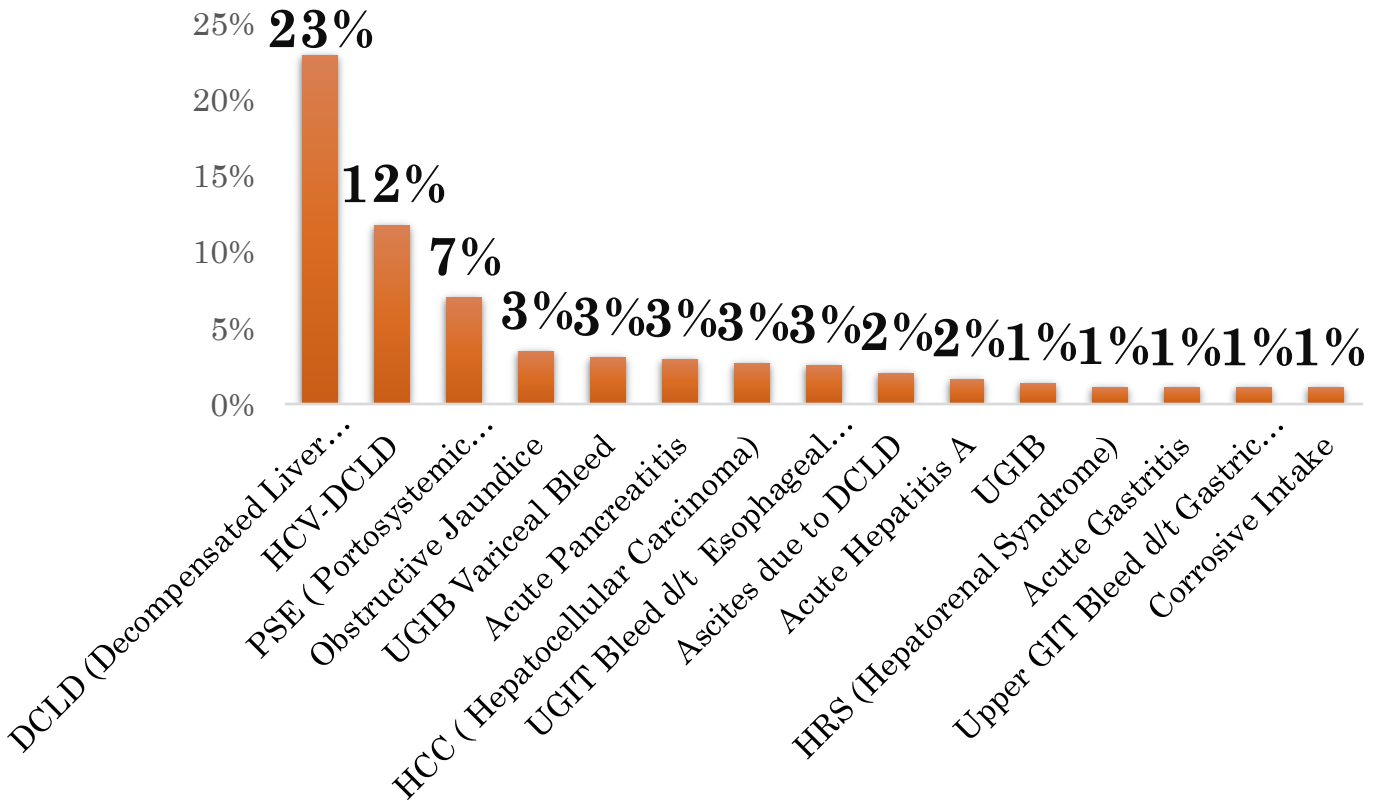


# PRESENTING COMPLAINTS

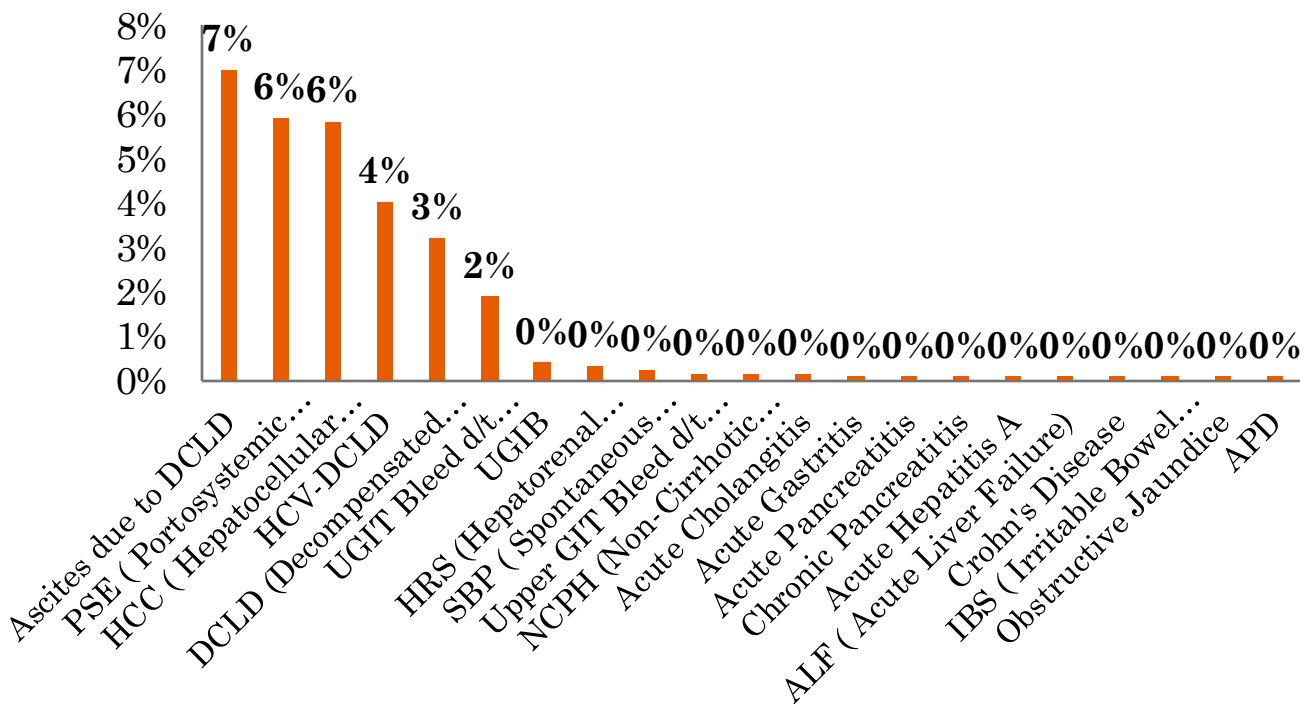




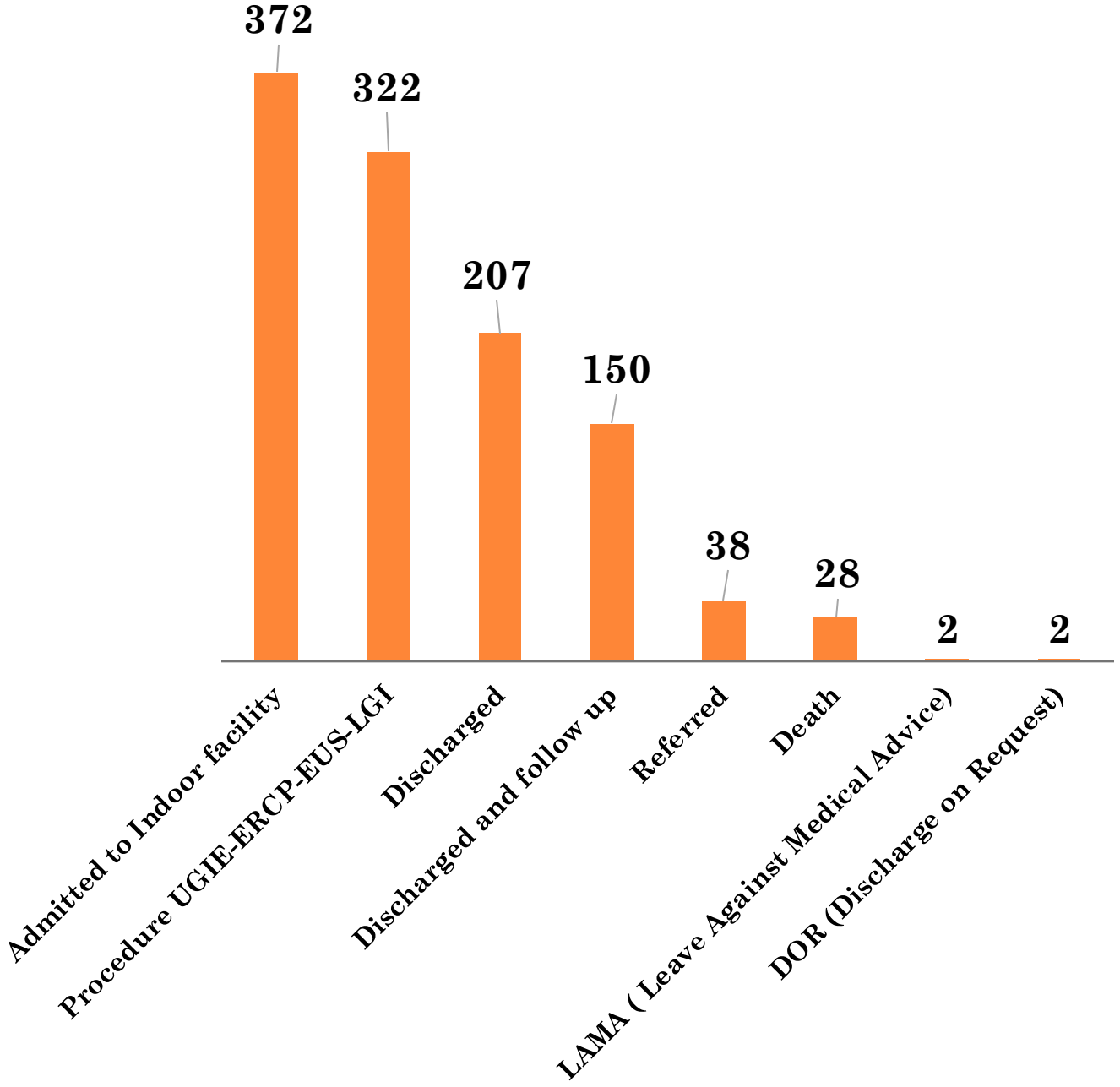
# PRIMARY DAIGNOSIS



# SECONDARY DIAGNOSIS



# OUTCOME

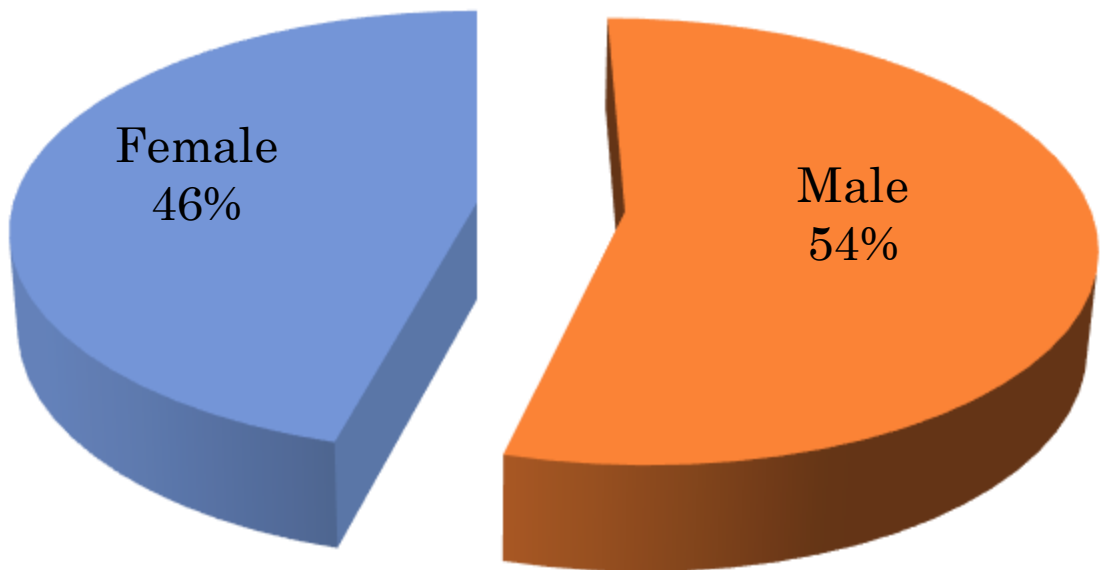


**2022**

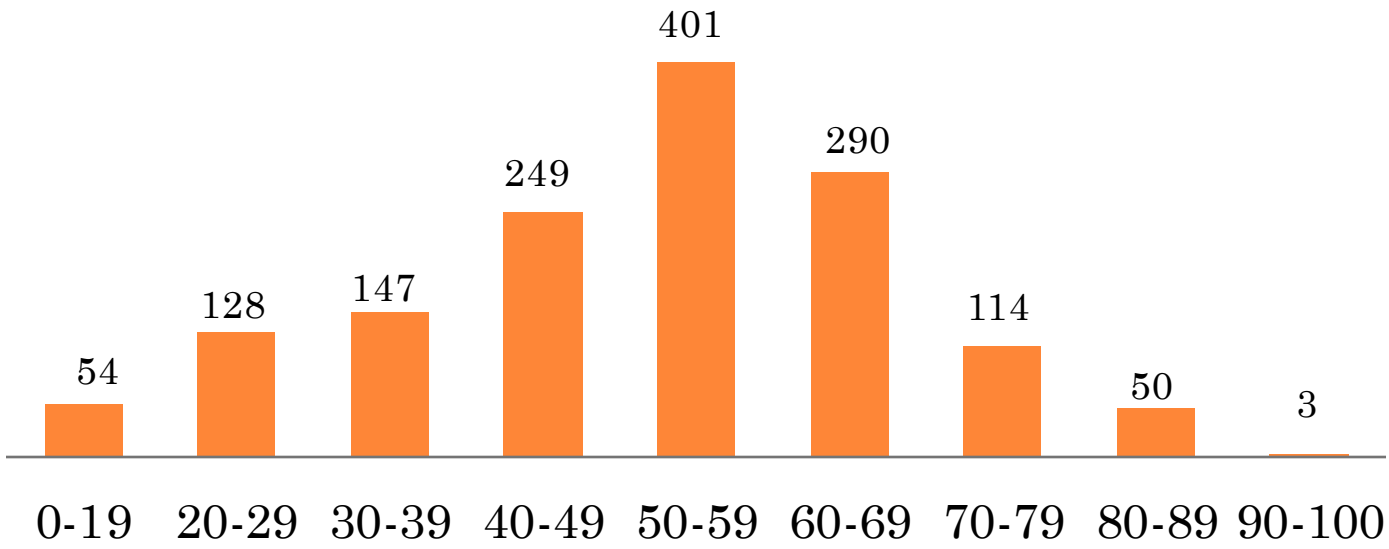
# TOTAL NUMBER OF PATIENTS WITH GENDER DISTRIBUTION.

<b>Total No of Patients</b>	<b>1436</b>
<b>Male</b>	<b>780</b>
<b>Female</b>	<b>656</b>

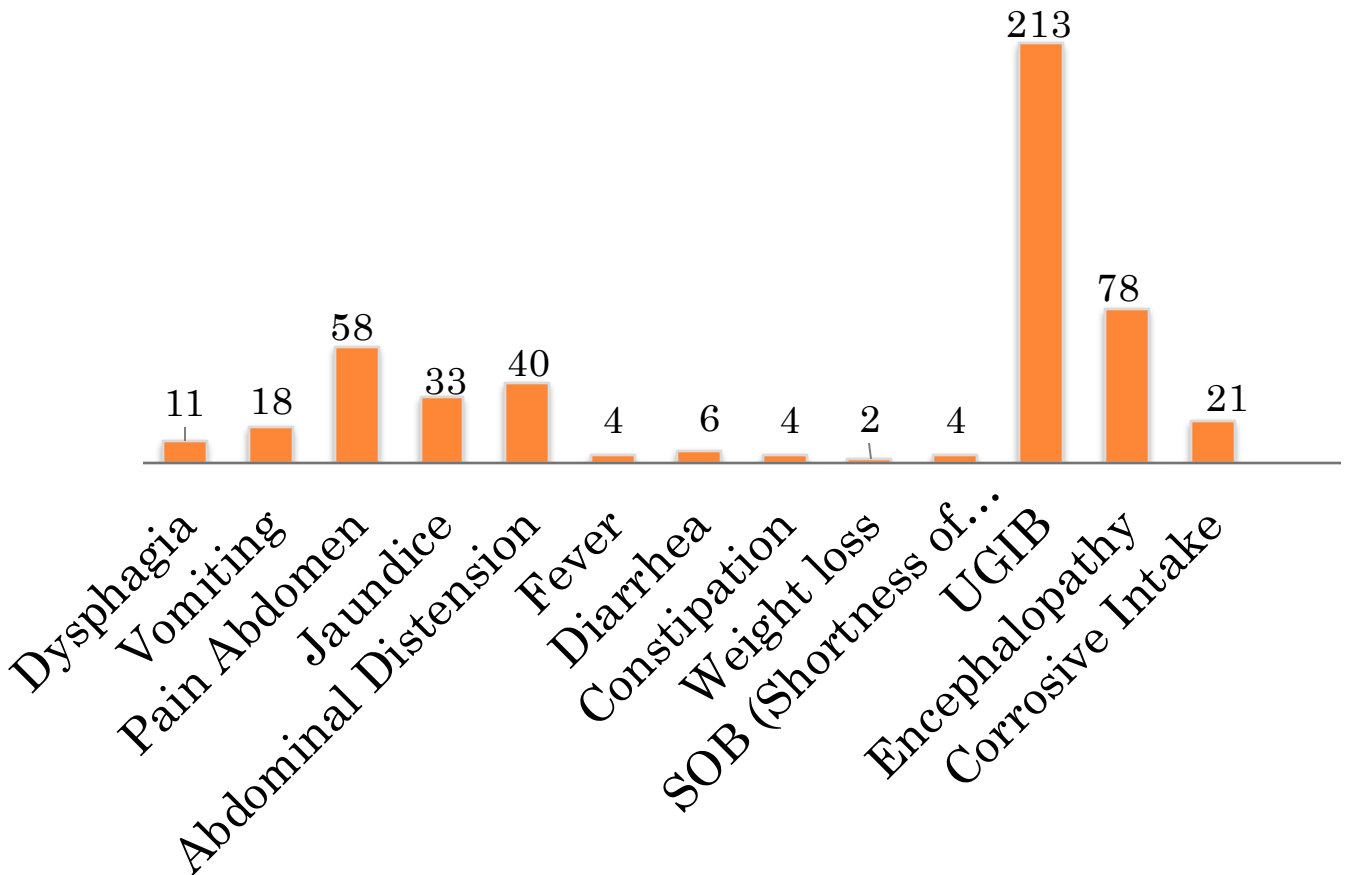
**Gender**



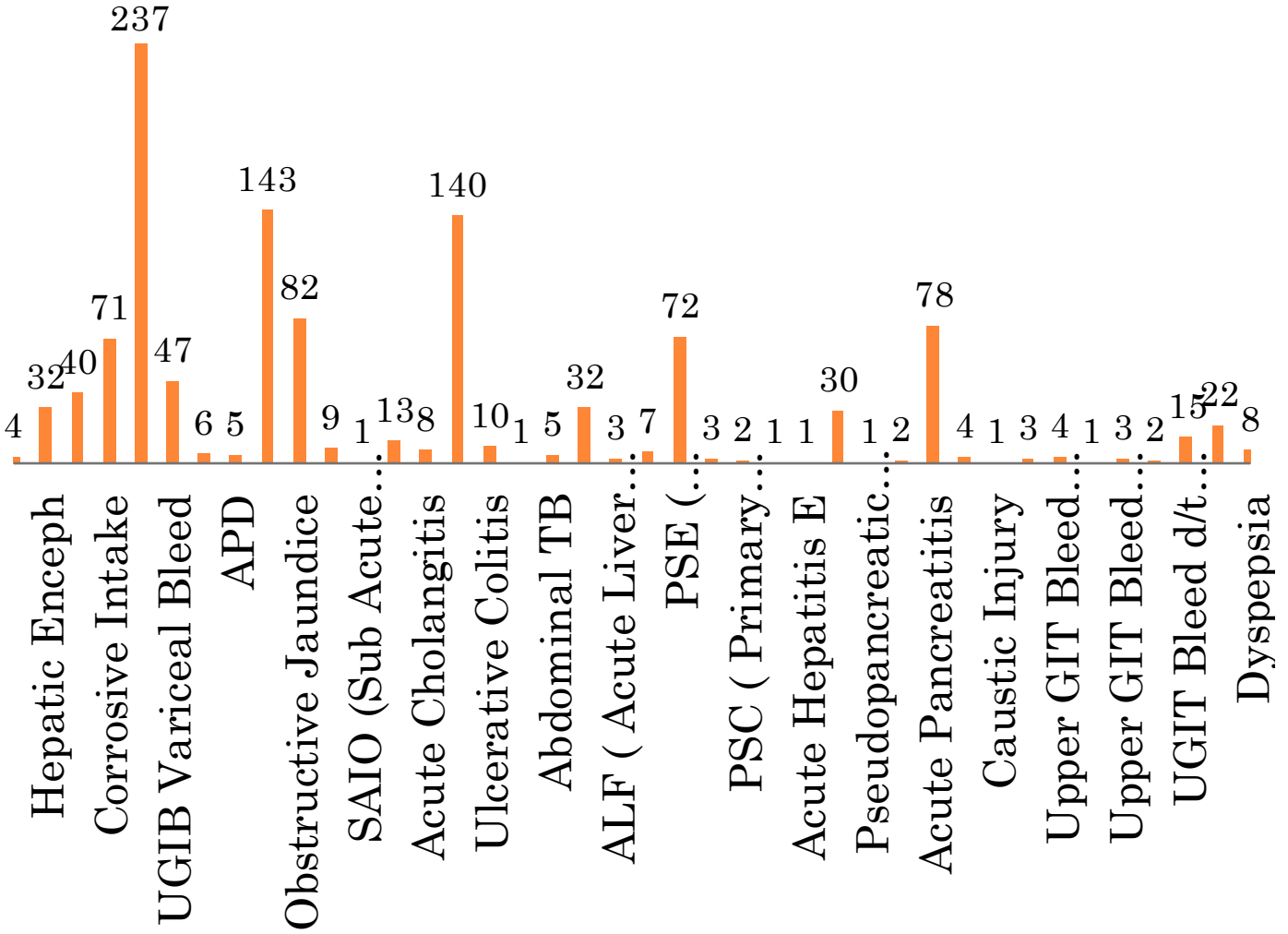
# Age wise Distribution



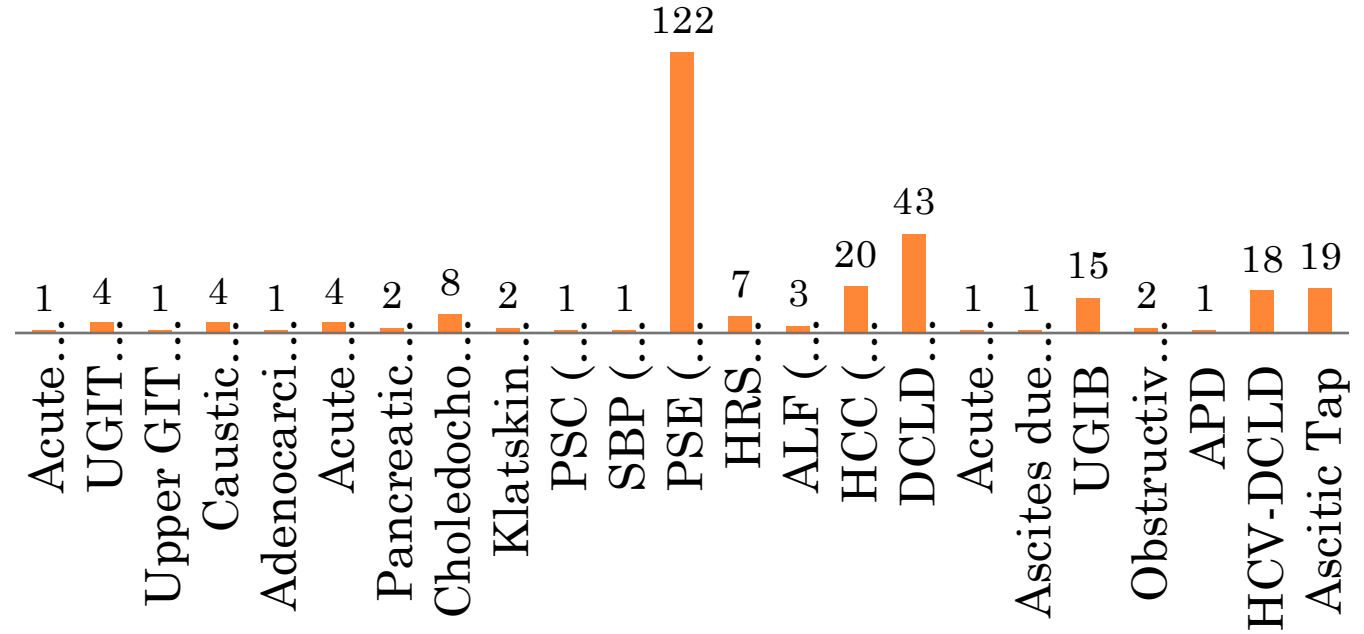
# PRESENTING COMPLAINTS



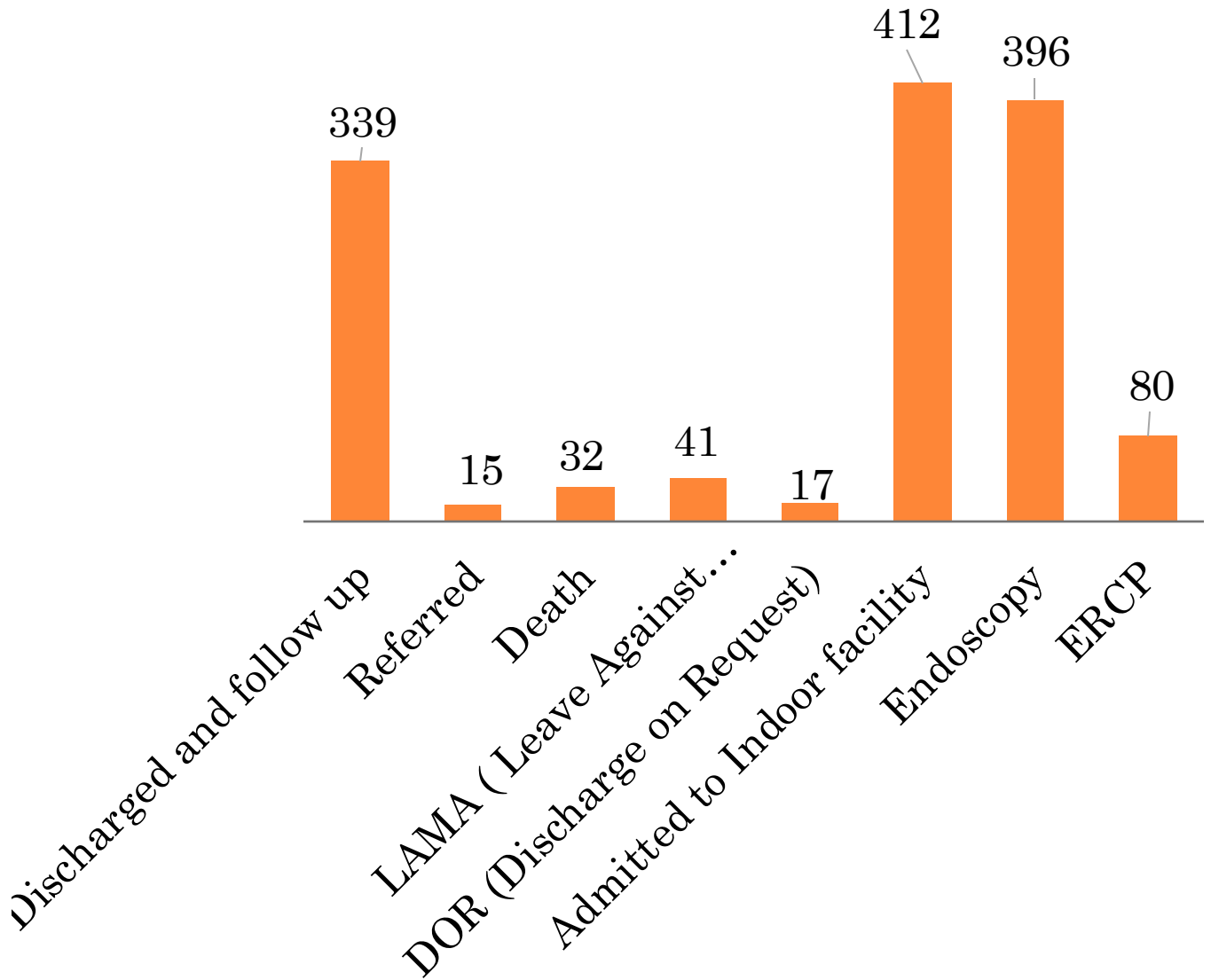
# PRIMARY DAIGNOSIS



# SECONDARY DIAGNOSIS



# OUTCOME





# DEPARTMENT OF GASTROENTEROLOGY CENTER FOR LIVER AND DIGESTIVE DISEASE



**Rawalpindi Medical University, Rawalpindi**