



## PROSPECTIVE STUDY OF RISK FACTORS FOR INGUINAL HERNIA IN OLD AGE

## General Surgery

**Karthikeyan G\*** Assistant Professor, Department Of General Surgery, Thanjavur Medical College, Thanjavur \*Corresponding Author

**Arul Devanath P** Junior Resident, Department Of General Surgery, Thanjavur Medical College, Thanjavur.

## ABSTRACT

**Background:** Inguinal hernias account for 75% of all abdominal wall hernias. The incidence of inguinal hernias has a bimodal distribution, which peaks around age 5 and after age 70. **Methods:** This was a descriptive study that was conducted in the period of MARCH 2021- OCTOBER 2022 which included seventy three patients. All admissions were done as cases of inguinal hernia in patients more than 60 years of age without complications. **Results:** Inguinal Hernia was found to be more common in Class III group of Patients compared to other socioeconomic classes. More than 55 to 60 percentage of patients with Inguinal Hernia belong to Patients with Normal Body Mass Index. Unilateral Hernias was found to be more common. Systemic Hypertension is most common comorbidity. Benign Prostatic Hypertrophy is found to be the most common etiological factor in old age patients **Conclusions:**

## KEYWORDS

inguinal hernia, direct hernia, indirect hernia

## INTRODUCTION

The term Hernia is derived from Latin word for RUPTURE. By definition, Hernia is abnormal protrusion of a part or whole of the viscus/organ through the wall that contains it. Hernia defects can occur anywhere in the body but most commonly involve the Anterior Abdominal Wall. In Anterior Abdominal wall, Hernia is more common in sites where fascia and aponeurosis is not covering the muscle. Groin regions are where most abdominal hernias develop. (Latin word inguen - Groin) so named because it is the transition zone between abdomen and thigh. All groin hernias emerge through the Fruchaud myopectineal orifice, which is the opening in the lower abdominal wall, bounded by superior pubic rami and transverse abdominis arch. Inguinal ligament divides the above site into upper and lower halves. Protrusion in Inguinal region presents anteriorly, whereas protrusion in the femoral region appears posteriorly. Inguinal hernias account for 75% of all abdominal wall hernias. The incidence of inguinal hernias has a bimodal distribution, which peaks around age 5 and after age 70. Two-thirds of these hernias are indirect, making an indirect hernia the most common groin hernia in both males and females. Males account for about 90% of all inguinal hernias and females about 10%. Femoral hernias account for only 3% of all inguinal hernias and are more commonly seen in women with females accounting for about 70% of all femoral hernias.

An inguinal hernia will affect nearly 25% of men and less than 2% of women over their lifetime. An indirect hernia occurs more often on the right. This is believed to be attributed to the slower closure of a patent processus vaginalis on the right side compared to the left. There is also belief that an inguinal hernia can be the result of increased intra-abdominal pressure (IAP) and therefore the development of a hernia may be attributed to single strenuous or recurrent strenuous events.

## MATERIALS AND METHODS

This was a descriptive study that was conducted in the period of MARCH\_2021- OCTOBER 2022 which included seventy three patients. All admissions were done as cases of inguinal hernia in patients more than 60 years of age. Patients aged less than 60; those who underwent emergency hernia surgeries due to complications and those presenting with inguinal hernia persisting more than one year were excluded from the study. All patients admitted with Inguinal Hernia were assessed using parameters such as BMI for Nutritional Assessment, SocioEconomic status, calculated using Modified Kuppussamy scale, comorbidities like T2DM, SHTN, Respiratory Disorders and CKD.

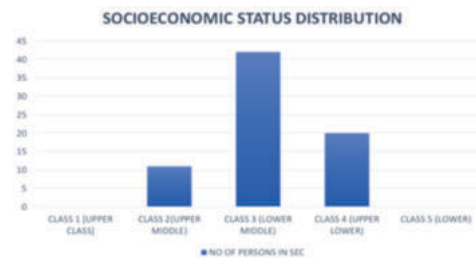
USG Abdomen and Pelvis was done in all patients to look for Post voidal Residual Urine Volume in relation to Prostate enlargement

## RESULTS

Inguinal Hernia can occur both in younger as well as older age groups, the occurrence of Inguinal Hernia in Older age groups of less than one year of duration was planned to study in this group.

The parameters assessed in our study include both Nutritional as well as Socioeconomic Factors. Comorbidities like Systemic Hypertension, Type 2 Diabetes Mellitus, Chronic Kidney Disease and Coronary Artery disease are also considered.

Inguinal Hernia was found to be more common in Class III group of Patients compared to other socioeconomic classes. Inguinal Hernia are also found in Upper middle and Lower Middle group, however in our study the incidence of Inguinal Hernia in CLASS I Socioeconomic group is rare.

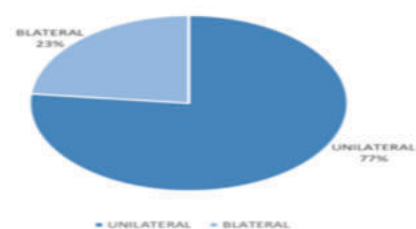


More than 55 to 60 percentage of patients with Inguinal Hernia belong to Patients with Normal Body Mass Index whereas 25 percentage belongs to Underweight Category and 15 percentage belongs to Overweight category.



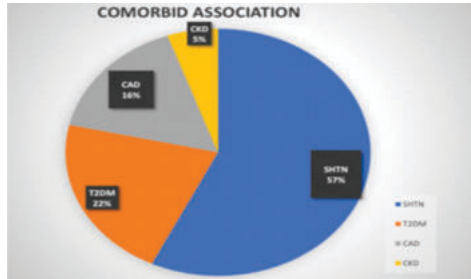
Unilateral Hernias was found to be more common compared to Bilateral Hernias and among the unilateral Hernias, Indirect hernia was found to be more common than Direct Hernia.

## INCIDENCE - UNILATERAL VS BILATERAL

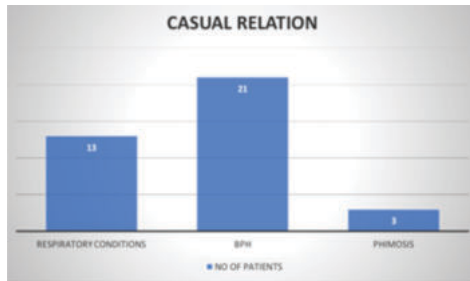


Among the total study group of 73 patients conducted in Thanjavur

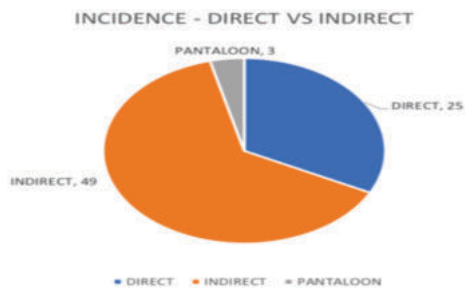
Medical College between March 2021 to October 2022, Systemic Hypertension is most common comorbidity associated with Inguinal Hernia in Older age group patients followed by Diabetes Mellitus, Coronary Artery Disease and Chronic Kidney Disease Respectively.



Socio Economic Status was assessed using Modified Kuppasamy Scale. In our study group most of the patients falls into Class III group namely the LOWER MIDDLE GROUP followed by Upper Middle Group and Upper lower group Respectively. Body Mass Index was classified using CDC Classification. 43 patients belongs to Normal weight category whereas 20 patients belongs to underweight and 10 patients belongs to overweight category. Among the risk factors Benign Prostatic Hypertrophy is found to be the most common etiological factor in old age patients and it accounts for up to 21 patients. Respiratory Disorders like COPD, Bronchial Asthma, Chronic Bronchitis is found in 13 patients and Phimosi is found in 3 patients.



Of the 73 patients studied, Unilateral hernia is found in 77 percentage of patients where as Bilateral Hernia is found in 23 percentage of patients. Similarly Indirect Hernia was more common and found in 48 patients and Direct Hernia was found in 22 patients. Pantaloon Hernia was found in 3 patients.



**CONCLUSION :**

More number of patients with Inguinal Hernia are associated with Systemic Hypertension Inguinal hernia is found to be more common in Normal weight category patens based on BMI as compared to underweight and overweight patients, but the former outweighs the latter when both are compared. Benign Prostatic Hypertrophy is the most common etiological factor compared to other risk factors in old age group. Unilateral Hernias are more common compared to bilateral Hernias and among Unilateral Hernias Indirect Hernias are more common than Direct Hernias.