

# INDICATIONS OF SPLENECTOMY IN A TERTIARY CARE HOSPITAL IN A SUB URBAN POPULATION - A CROSS SECTIONAL STUDY

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## Abstract

**Background:** The role of the spleen in the body's immune response to a variety of infections and the serious consequences of its removal has been increasingly recognized over the past 40–50 years<sup>1</sup>. There are various indications for removal of spleen and most common being trauma. Our study gives us an idea on various indications for splenectomy in the Indian scenario.

**Aims:** A study of various indications of splenectomy in a tertiary care hospital in a sub urban population.

**Materials and Methods:** This is a cross sectional study done on 50 patients undergoing splenectomy in general surgery department, relevant investigations were done and data was collected, SPSS 24 was used for statistical analysis of results.

**Results:** Most common reason for removal of spleen was resection of adjacent structures for diseases not primary to spleen.

## Introduction

The spleen was considered an organ full of mystery since the times of Galen. The indications for removing the spleen have never been clearly defined. The spleen is the major site of specific immunoglobulin M (IgM) production. It also synthesizes opsonins (tuftsin, properdin, and fibronectin). Tuftsin stimulates white cell motility and phagocytosis<sup>2</sup>. The spleen is also the major site of clearance of encapsulated organisms, which are not effectively cleared in asplenic hosts, a problem that puts these people at increased risk of sepsis secondary to these organisms<sup>3</sup>. Though trauma is still the most common indication for splenectomy; there are some non traumatic conditions which warrant splenectomy. Primary diseases of the spleen are uncommon. However, the spleen is often removed as part of surgery for malignant diseases of adjacent structures, known as incidental splenectomy.<sup>4</sup> Our study focus on indications for spleen removal in Indian scenario.

## Need for the study:

In view of scarcity of studies on indications for spleen removal in individuals from Indian population.

## Aims & Objectives of the study:

A study of various indications of splenectomy in a tertiary care hospital in a sub urban population.

## Materials and Methods:

This was a cross sectional study done in department of General surgery in Meenakshi Medical College Hospital and Research Institute, a tertiary care teaching hospital located in Enathur, Kanchipuram. , after getting necessary permission and ethical committee clearance, total 50 patients undergoing splenectomy were reviewed , relevant investigations were done and data was collected . Statistical analysis was done using SPSS2.

## Results:

Table I- Age and Sex wise distribution of patients in each group

Most common age group of patients in our study group were between 20 to 40 years and most affected gender were male(31 cases) .

1A

S.No	Age groups	No of cases
1	20-40	26
2	40-60	15
3	60 and above	9

1B

S.No	Sex	No of cases
1	MALE	31
2	FEMALE	19

Table II- Etiology

S.No	Etiology	No of cases
1	INCIDENTAL	20
2	HEMANGIOMA	4
3	SPLENIC CYST	4
4	SPLENIC ABCESS	7
5	EXTRA HEPATIC PORTAL VENOUS OBSTRUCTION	6
6	NON CIRRHOTIC PORTAL FIBROSIS	6
7	IDIOPATHIC THROMBOCYTOPENIC PURPURA	3

The most common indication for splenectomy in this study was actually along with resection of adjacent structures for diseases not primary to spleen( 20 patients ) , followed by splenic abscess (7 patients) .

## Discussion:

Our study was conducted in 50 patients admitted in surgery department who are planned for spleen removal. It was observed that most commonly men were involved as compared to women, the findings were similar to study done by Chen Y et al<sup>5</sup>. In our study it was observed that most common indication for splenectomy was as a part of surgery for removal of some other structure and similar findings were seen in studies done by Traetow et al<sup>6</sup>.

## Limitations:

Small sample size

## Conclusion:

This study shows that splenectomy has been performed most commonly for malignancies of adjacent structures due to direct infiltration or thrombosis of splenic or portal vein.

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## References

1. Alan T. Lefor. "Spleen", Essential Practice of Surgery, 2003.
2. David G. Heidt. "Pancreas: Anatomy and Structural Anomalies", Textbook of Gastroenterology, 11/14/2008.
3. George S. Abi Saad. "Isolated splenic metastasis from colorectal cancer", International Journal of Clinical Oncology, 01/22/2011.
4. Bailey and Love. *Short Practice of Surgery*. 25th. London : Edward Arnold (Publishers) Ltd, 2008. pp. 1130-1153.
5. Chen Y, Peng V, Zhou Y, Du S, Yuede CM, Lei T, Hou J, Nguyen K, Poliani PL, Beatty WL, Chen Y, Cao S, Lin K, Rodrigues C, Epidemiology and incidence of appendectomy.
6. Traetow Arch Surg. 1980 Apr;115(4):447-51. doi: 10.1001/archsurg.1980.01380040073013.PMID: 7362452.