

Incidence of Surgical Emergencies – A Hospital Based Study in Ranga Reddy District of Telangana

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Abstract

Background: Surgical emergencies are unique group of cases which require quick decisions and these decisions have significant effect on outcome. Most of these surgeries performed in emergency situations where the value of the exhaustive investigations has to be balanced against any deterioration which may occur in patient's general condition due to inevitable delay. Objective: The objective of this study was to identify the spectrum of surgical emergencies and their outcome. Design: This was a hospital based prospective analysis of surgical emergencies presented to Unit I and V of General Surgery Department, Bhaskar General Hospital. Duration: Surgical emergencies over a period of three years from 2015 to 2017 were analyzed to identify the spectrum of surgical emergencies and their outcome. Setting: Department of General Surgery, Bhaskar Medical College, Yenkapally, Moinabad, Ranga Reddy District, Telangana, India. Participants: A total of 2372 patients who underwent emergency surgery in Unit I and Unit V of General Surgery Department, Bhaskar General Hospital. **Subjects and Methods:** A retrospective analysis of the reports of all the patients who were operated upon was performed to assess the spectrum of surgical emergencies and their outcome. Data was tabulated using MS Excel and statistical analysis was performed using appropriate statistical software. **Results:** Among Non-trauma cases, 51.24% (472) were Appendicitis (i.e., 19.95% of total cases), 34.90% (322) were of Intestinal obstruction, 12.03% (114) were hollow viscus perforations and others include 0.71% (56) of cases. Most of the surgeries were performed under spinal anaesthesia. A few cases were performed under General anaesthesia. Among trauma cases, 85.16% (1234) of them were minor injuries that required conservative management or minor surgeries & 14.84% (215) of them were managed with major surgery. **Conclusion:** Among non-trauma cases, most of the cases were of intestinal obstruction and most of the surgeries were performed under spinal anaesthesia. Among trauma cases, most of them were minor injuries that required conservative management or minor surgeries and few of them were managed with major surgery.

Keywords: Surgical Emergencies, Incidence, Hospital Based Study, Outcome.

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Introduction

Surgical emergencies are unique group of cases which require quick decisions and these decisions have significant effect on outcome. General Surgical Emergencies Commonly Seen in First and Second-Level Hospitals are Acute abdominal conditions, Incarcerated and Strangulated Inguinal Hernias, Appendicitis, Intestinal obstruction, Complications of peptic ulcer, including perforated ulcer and bleeding ulcer, Bleeding from esophageal varices, Pelvic infections with abscesses, Perforated typhoid ulcers, Amebic liver abscess, Gall bladder and bile duct disease, Respiratory obstruction, foreign bodies, and pleural disease, Urinary obstruction caused by stricture, stone, or prostatic enlargement, Surgical infections of the skin, muscles, bones, and joints. The World Health Organization's (WHO's) Global Health Estimates report surgical emergencies as high mortality medical conditions. The goals of management are to Recognize different surgical emergencies, Learn a correct

notion, Decrease delayed diagnosis and to Prevent secondary injury. The principles of management include: Lifesaving - Identify life-threatening injury and Appropriate resuscitation; Maintain vital status - Detailed physical examination and Continuous resuscitation; Further evaluation and management - Laboratory examination and Consultation. The objective of this study was to identify the spectrum of surgical emergencies and their outcome.

Subjects and Methods

Place Of Study: Department of General Surgery, Bhaskar Medical College, Yenkapally, Moinabad, Ranga Reddy District, Telangana, India.

Type Of Study: This was a hospital based prospective analysis of 2372 surgical emergencies presented to Unit I and Unit V of General Surgery Department, Bhaskar General Hospital.

Sample Collection: Sample Size: 2372 patients.

Sampling Methods: Consecutive sampling.

Statistical Methods: Statistical analysis was done using appropriate statistical software.

Ethical Approval: Approval was taken from the Institutional Ethics Committee prior to commencement of the study.

Results

A total of 2372 patients, 60.95 % are males and 39.05 % are females with the age group of 5 – 92 years underwent

emergency surgery. The surgeries included 61.07% (1449) of Trauma & 38.93% (923) of Non-trauma cases.

As depicted in the following tables 1, 2 and 3; among Non-trauma cases, 51.24% (472) were Appendicitis (i.e., 19.95% of total cases), 34.90% (322) were of Intestinal obstruction, 12.03% (114) were hollow viscus perforations and others include 0.71% (56) of cases. Most of the surgeries were performed under spinal anaesthesia. A few cases were performed under General anaesthesia.

Table 1: Appendicitis Cases

Year	Patients	Male	Female	<12 Yrs	12-30Yrs	>30 Yrs	Sa	Ga	Appendicular Perforation
2015	148	82	66	28	99	21	102	46	46
2016	121	68	53	31	65	25	88	33	33
2017	203	112	91	50	121	32	146	57	57

Intestinal Obstruction

Table 2: Intestinal Obstruction Cases

Year	Patients	Male	Female	<12Yrs	12-30Yrs	>30 Yrs	Sa	Ga	Adhesions	Obstructed Hernias	Sigmoid Volvulus	Malignancies	Others
2015	102	64	38	02	06	94	25	77	55	28	09	06	04
2016	97	55	42	0	02	95	16	81	47	21	12	10	07
2017	123	70	53	04	07	116	31	92	68	35	08	07	05

Hollow Viscus Perforation

Table 3: Hollow Viscus Perforation Cases.

Year	Patients	Male	Female	<12Yrs	12-30 Yrs	>30 Yrs	Sa	Ga	Du Perforation	Gastric Perforation	Ileal Perforation
2015	41	36	05	0	0	41	0	41	25	07	09
2016	46	35	11	0	2	44	0	46	30	08	08
2017	27	25	02	0	1	26	0	27	15	05	07

As depicted in the following table no. 4, among trauma cases, 85.16% (1234) of them were minor injuries that

required conservative management or minor surgeries & 14.84% (215) of them were managed with major surgery.

Trauma

Table 4: Trauma Cases

Year	Patients	Male	Female	<12 Yrs	12-30 Yrs	>30 Yrs	Abrasions	Lacerations	Avulsion Injuries	Urethral Injuries	Blunt Injuries				Penetrating Injuries		
											Chest		Abdomen	Others	Chest	Abdomen	Others
											Conservative	Operative					
2015	629	390	239	71	356	202	416	121	43	3	03	01	07	15	04	09	06
2016	471	288	183	38	268	165	307	90	33	4	03	02	02	19	02	06	03
2017	349	213	136	27	197	125	227	66	22	03	01	01	04	14	02	06	02

Discussion

Emergency surgery is an acute specialty where decisions should be taken as quickly as possible. Information needs to be gathered quickly and appropriate management started. Most of the surgeries were performed in emergency situations where the value of the exhaustive investigations has to be balanced against any deterioration which may occur in patient general condition due to inevitable delay. As this study deals with the incidence of emergency surgeries, the cases are divided into trauma and non-trauma, out of which

trauma cases were majority. A total of 2372 patients, 60.95 % are males and 39.05 % are females with the age group of 5 – 92 years underwent emergency surgery. The surgeries included 61.07% (1449) of Trauma & 38.93% (923) of Non-trauma cases. Among trauma, those with minor injuries that needed conservative and minor surgery are higher in number than those with major injuries. Among non-trauma cases, Appendicitis cases 51.24% (472) were higher in number when compared to other non-trauma cases. Majority of the appendicitis cases were males aged 12-30 years. Appendicular perforations were observed in 136(28.8%)

cases. Intestinal obstruction cases accounted for 34.90% (322) and hollow viscus perforations accounted for 12.03% (114) of non-trauma cases. Majority of the intestinal obstruction cases were males aged more than 30 years. Among Intestinal obstruction cases, adhesions were observed in 170(52.2%) cases, obstructed hernias were observed in 84(26.0%) cases, Sigmoid volvulus was observed in 29(9.0%) cases and malignant change was observed in 23(7.1%) cases. Among hollow viscus perforations, Du perforation cases were maximum (61.4%). Most of the surgeries were performed under spinal anaesthesia. A few cases were performed under General anaesthesia. Among trauma cases, 85.16% (1234) of them were minor injuries that required conservative management or minor surgeries & 14.84% (215) of them were managed with major surgery. Majority of the trauma cases were males aged 12-30 years. Abrasions were the majority of traumatic surgical emergencies operated upon(65.5%). This research was first of a kind in Telangana which aimed at identifying the spectrum of surgical emergencies and their outcome.

Conclusion

Among non-trauma cases, most of the cases were of intestinal obstruction and most of the surgeries were

performed under spinal anaesthesia. Among trauma cases, most of them were minor injuries that required conservative management or minor surgeries and few of them were managed with major surgery.

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