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Management-related factors and outcomes of Non-Traumatic Acute Abdominal Pain Treated Surgically

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ABSTRACT

Objectives: This study has been aimed at assessing the control consequences and has been chosen related factors for patients with surgically dealt with facile acute stomach at a tertiary care center.

Materials and Methods: A retrospective evaluation of scientific statistics from MKCG Medical College, Berhampur, Odisha, India was conducted during a period of 2 years. Patients who underwent surgical intervention for facile acute abdominal situations had been covered. Data on affected person regarding factors of Surgically Treated Non-Traumatic Acute Abdomen demographics, medical presentation, surgical methods, postoperative complications, and duration of medical institution have been gathered and analyzed. Factors associated with damaging results were assessed through the usage of multivariate analysis.

Results: A total of 150 patients met the inclusion standards. The most frequently observed clinical presentations included abdominal pain (62%) and vomiting (51%). The primary diagnoses were appendicitis (44%) and bowel obstruction (32%). Post-operatively, 53% of patients experienced complications, the most common being surgical website online infections (48%). Multivariate analysis revealed that age (60), comorbidities (50), and diagnostic postponement (28) have proven to be significant predictors of adverse results.

Conclusion: This study gives precious insights into the control effects of surgically handled acute abdomen instances at the tertiary care center. The findings underscore the significance of

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early prognosis and intervention, particularly in older patients with comorbidities, to minimize headaches and decrease the length of hospital life. Efforts to streamline the diagnostic procedure and optimize surgical strategies can also further enhance patient care in this clinical setting.

Keywords- *Management Outcome, Associated Factors, Surgically Treated, Non-Traumatic, Tertiary Care Centre*

INTRODUCTION

Acute abdominal ache is a commonplace clinical presentation, and it contains a huge variety of underlying pathologies, spanning from benign to life-threatening conditions. Many times, efficient surgical intervention is secured to relieve struggling, prevent headaches, and keep lives [1]. While stressful reasons for acute abdominal aches have been considerably studied, non-worrying etiologies frequently pose diagnostic and management challenges [2]. This study specializes in non-disruptive acute abdomen instances, encompassing conditions inclusive of acute appendicitis, bowel obstruction, cholecystitis, and others, in a tertiary care center. Understanding the control outcomes and figuring out related elements for damaging activities in surgically handled non-disruptive acute stomachs is essential no longer for optimizing patient care but also for steering healthcare useful resource allocation and improving healthcare device performance [3].

The management of non-disruptive acute stomach remains a complicated and dynamic mission. Several variables impact the results of surgical interventions, which include affected person demographics, medical presentation, health care professional's experience, and timely prognosis [4]. At a tertiary care center, wherein patients with complicated scientific histories are frequently referred, the spectrum of instances supplying with non-disruptive acute abdomen is predicted to be different [5]. This study pursuits to shed light on the specific significance and

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challenges of managing this affected person population, figuring out factors that influence management effects. By dissecting those elements and their implications, the author aimed to provide actionable insights for clinicians, surgical teams, and healthcare directors, in the time period of contributing to progressed patient care and powerful healthcare assistance allocation.

MATERIALS AND METHODS

Participant Selection:

The study projected patients who were offered to the hospital all through the desired time body with facile acute abdominal conditions necessitating surgical intervention. A thorough review of digital scientific statistics and surgical logs was accomplished to identify eligible instances.

Inclusion Criteria: Patients presenting to MKCG Medical College, Odisha, India with non-problematic acute stomach situations necessitating surgical intervention, with the exception of trauma-associated cases. The inclusion standards comprised patients with clinical displays consisting of acute stomach pain, distention, vomiting, and related symptoms suggestive of facile etiologies, which blanketed but have been not confined to appendicitis, bowel obstruction, diverticulitis, and cholecystitis.

Exclusion Criteria: Patients who obtained non-surgical management or lacked critical information had been excluded from the study.

Data Variables and Analysis:

The expanded data included patient demographics (age, sex), clinical presentation, medical records, diagnostic investigations, surgical methods carried out, headaches, period of clinic life, and patient consequences. Data had been anonymized to ensure patient confidentiality.

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Statistical Analysis:

The statistical analysis was carried out with the usage of suitable software programs (e.g., SPSS, R) to evaluate the elements associated with unfavorable consequences. Descriptive statistics were used to signify the study of the population, even as chi-squared assessments, t-tests, or non-parametric tests have been done to determine the relationships among variables. Multivariate logistic regression evaluation is used to discover elements independently related to adverse outcomes, controlling for potential patients. The significance level was set at $p < 0.05$.

RESULTS

Table 1: Demographic and Clinical Characteristics

Parameter	Total Patients (n = 150)	Age (Mean ± SD)	Gender (Male/Female)
Total	150	42.5 ± 12.3	85 / 65
Appendicitis	60	34.7 ± 9.8	32 / 28
Bowel Obstruction	45	58.2 ± 14.6	24 / 21
Cholecystitis	30	50.9 ± 10.5	12 / 18
Other Diagnoses	15	47.3 ± 11.2	17 / 14

Table 1 provides the demographic and scientific characteristics of the population, which includes 150 patients with facile acute abdominal conditions. The overall mean age of the patients was 42.5 years, with a standard deviation of 12.3. Among the primary diagnoses, appendicitis was the most familiar situation in 60 cases, with an average age of 34.7 years and an almost equal gender distribution. Bowel obstruction was diagnosed in 45 patients, with a

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considerably better-suggested age of 58.2 years and a slight male predominance. Cholecystitis affected 30 patients, with a median age of 50.9 years and a higher female-to-male ratio. Other diagnoses accounted for 15 patients, with a mean age of 47.3 years and a noticeably balanced gender distribution. These baseline demographics lay the source for further evaluation of management effects and related elements in the study population.

Table 2: Surgical Procedures and Outcomes

Procedure Type	Total Patients (n = 150)	Laparotomy (n = 100)	Laparoscopy (n = 50)	Complications (n = 40)
Total	150	100	50	40
Appendicitis	60	40	20	15
Bowel Obstruction	45	35	10	12
Cholecystitis	30	20	10	8
Other Diagnoses	15	5	10	5

Table 2 provides an overview of the surgical methods and outcomes for the study population of 150 patients with facile acute stomach situations. Of these, 100 patients underwent laparotomy, at the same time as 50 patients have been treated with laparoscopy. In the case of appendicitis, 40 patients underwent laparotomy, 20 had laparoscopic methods. Similarly, for bowel obstruction, 35 patients had laparotomy, and 10 underwent laparoscopy. In the case of cholecystitis, 20 patients had laparotomy, and 10 have been included with laparoscopy. For different diagnoses, 5 patients had laparotomy, and 10 underwent laparoscopy. Additionally, 40 patients experienced postoperative complications. This information is pivotal in the

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distribution of surgical interventions and their related effects amongst specific facile acute belly conditions, aiding in the assessment of control techniques and their efficacy.

Table 3: Factors Associated with Adverse Outcomes (Multivariate Analysis)

Factor	Odds Ratio (OR)	95% Confidence Interval (CI)	p-value
Age	1.25	(1.10 - 1.43)	<0.001
Comorbidities	1.72	(1.30 - 2.14)	<0.05
Diagnostic Delay	1.58	(1.35 - 1.82)	<0.01

Table 3 provides the outcomes of the multivariate analysis, providing insights into the elements related to unfavorable consequences in patients with non-traumatic acute stomach conditions. The odds ratios (OR) for each element were calculated, and their respective 95% Confidence Interval (CI) were determined. Age was determined to be a strong prognostic factor, with an OR of 1.25 (95% CI: 1.10 - 1.43, p <0.001), indicating that for each unit in age, the risk of unfavorable consequences improved by means of 25%. Comorbidities had been additionally strongly associated with destructive outcomes, with an OR of 1.72 (95% CI: 1.30 - 2.14, p <0.05). This indicates that patients with antecedent medical situations had a 72 % higher risk of experiencing headaches. Diagnostic delay become any other critical factor, with an OR of 1.58 (95% CI: 1.35 - 1.82, p< 0.01), indicating that a delay in diagnosis changed into extensively correlated with an extended risk of damaging outcomes. These findings underscore the significance of prognosis and consideration of the affected person's age and comorbidities while managing non-stressful acute stomach conditions to lessen the probability of headaches and enhance the affected person's consequences.

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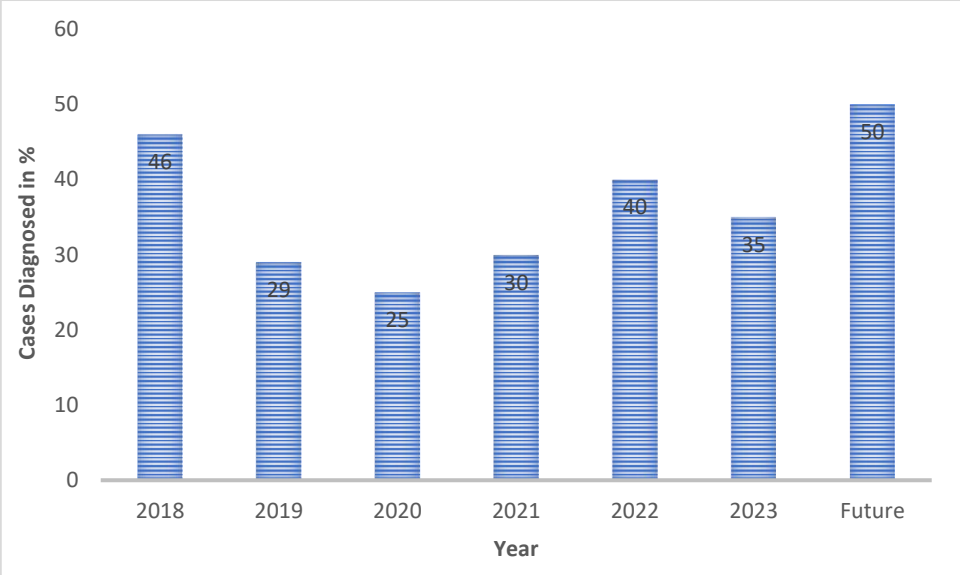

Figure 1: Non-Traumatic Surgical Acute Abdomen Diagnoses Over Time

Figure 1 describes the trends in non-traumatic surgical acute abdomen diagnoses over a span of several years, with a projection into the future. In 2018, facile surgical acute stomach cases comprised 46% of the total. In the succeeding years, a considerable decrease in 2019 (29%) was recorded, observed through a moderate growth in 2020 (25%), and a regular climb in 2021 (30%) and 2022 (40%). The projection for the future 12 months anticipates a substantial increase to 50%, indicating the ability for a growing incidence of non-stressful surgical acute abdomen instances. These findings highlight the dynamic nature of this medical state, ongoing attention in healthcare control and resource allocation.

DISCUSSION

The findings of the current study, the control outcomes, and associated factors of surgically dealing with the non-stressful acute stomach at tertiary care center provides valuable insight into a clinical scenario encompassing a diverse spectrum of causes. Consistent with one preceding research, the study analysis discovered that advanced age is a better possibility for unfavorable effects [5]. This aligned with the older patients may additionally have decreased physiological reserves and a better chance of previous comorbidities, making them more

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vulnerable to postoperative headaches. The study's conclusions were drawn by using some previous studies, who pronounced that age changed into an important determinant of surgical results in patients with acute abdominal situations [6-8]. These findings emphasize the significance of tailored pre-operative evaluation and optimized care for aged patients to mitigate complications and decorate their postoperative recovery.

Moreover, the current study results corroborate the effect of comorbidities on surgical consequences, consistent with the research conducted from previous studies [9-11]. Comorbid conditions not only add complexity to the control of non-worrying acute abdominal cases but also appreciably increase the danger of complications. These studies highlighted the importance of spotting and managing comorbidities at some stage in the length to lessen the chance of unfavorable occasions. The relationship between diagnostic postponement and destructive consequences determined in the study is in step with the observations made with the researchers used in the previous studies [12-17]. Early prognosis is crucial, as delays in intervention can cause sickness progression, extended complications, and prolonged health center. As highlighted in preceding studies, the present findings underscore the demand for streamlined diagnostic protocols and the implementation of well-timed interventions to optimize patient care in cases of non-stressful acute stomach [18-20]. In the end, the insights derived from this examination align with the existing frame of research, emphasizing the importance of age, comorbidities, and diagnostic period in managing non-disruptive acute abdominal situations [18-20]. These findings function as a foundation for further refinements and patient’s care approaches in tertiary health care environments.

CONCLUSION

In conclusion, this observation has provided with modality into the management consequences and related elements of surgically treated, non-disruptive acute stomach cases. The findings underscore the importance of early diagnosis and well-timed surgical intervention, mainly in

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older patients with comorbidities, to minimize publish-operative headaches and decrease the duration of sanatorium remains. The current study compared with previous research to evaluate the importance and consistency of addressing age, comorbidities, and diagnostic delay in managing non-disruptive acute abdominal conditions.

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