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Correlation of Postoperative Complications with the Nature of Anaesthesia, Duration of Operation in Surgery at MGM Medical College, Indore

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Abstract: The postoperative complications are always of concern to surgeons. The postoperative complications are of significance as many of them lead to prolonged disability and some end in death, their recognition and management are surgeon's responsibility. Postoperative complications after abdominal surgery occur in significant number and must be anticipated in time and proper measures instituted to control them. Incidence of postoperative complications is significantly higher in emergency surgery than in elective surgery
Keywords: Postoperative, Complication & Anaesthesia.

INTRODUCTION

The postoperative complications are always of concern to surgeons. The postoperative complications are of significance as many of them lead to prolonged disability and some end in death, their recognition and management are surgeon's responsibility [1].

The morbidity of complication and the mortality rate associated with any major surgical procedure usually decrease as the frequency with which the operations performed, increases. This reflects knowledge gained by all those who employ the procedure, provided accurate records are kept and reports made so that what is observed and learned is well documented so that it can be Communicated, Additionally, clinical problems such as postoperative complications are today attacked from many approaches by many individuals capable of assisting in their solution [2].

MATERIALS AND METHODS

A prospective study of postoperative complications in 100 patients, who underwent abdominal surgery, is done, in the Department of Surgery, "M.Y. Hospital & MGM Medical College, Indore" Indore, and MP from March 2016 to June 2017.

Selection of Cases

Patients who underwent abdominal surgery during the period of year 2016-2017 are taken for the study in the present series. Major Abdominal surgery is considered when operation is done under anaesthesia, where duration of surgeries prolonged and risk of complications are more or where the vital organ is operated upon, but not one of the above criteria makes an operation major but taking into consideration of all above and other factors the surgery is defined as major.

Each case was studied under following heads from the available case records:

Demographic Data

With special reference to age and sex

Complaints

Presenting-complaints and their duration were recorded.

STATISTICAL ANALYSIS

The results are presented in percentages. The Chi-square test was used for comparisons. The p-value<0.05 was considered significant. All the analysis was carried out on SPSS 16.0 version.

OBSERVATIONSAND RESULTS

Table-01: Complications in Relation to Type of Anaesthesia

Anaesthesia	No	No. of Complications	%	Mortality	%
General	62	30	48.38%	8	12.90%
Spinal	25	8	32.00%	1	4.00%
Epidural	13	2	15.38%	1	7.69%
Total	100	40	40.00%	10	10.00%

Chi-Square Goodness-of-Fit Test for Observed Counts in Variable: Anesthesia
Fisher's exact test: P-Value = 0.000
It is insignificant.
Chi-Square Goodness-of-Fit Test for Observed Counts in Variable: Complications
Fisher's exact test: P-Value = 0.000
It is insignificant.
Chi-Square Goodness-of-Fit Test for Observed Counts in Variable: Mortality
Fisher's exact test: P-Value = 0.007
It is significant.

Above table shows that morbidity and mortality incidence of postoperative complications is more in patients operative in general anaesthesia (48.38% and 12.9% respectively) the morbidity and mortality in patients who are operated under spinal anaesthesia is lower than general anaesthesia but morbidity is higher than patients who were operated under epidural anaesthesia but mortality is lower than epidural anaesthesia[3,4].

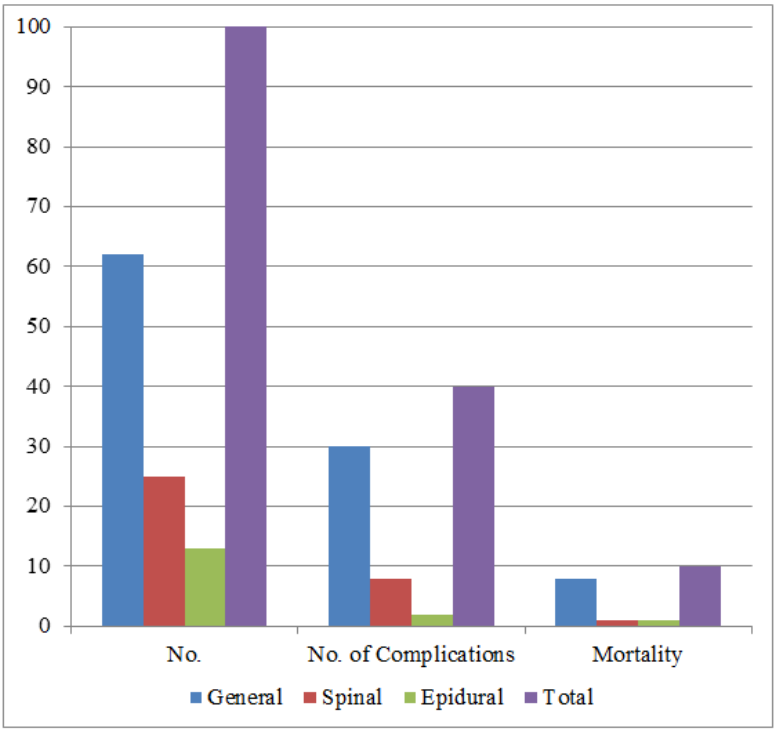

Fig-1:Complication in Relation to Previous Major Operation in Past

DISCUSSION

Until the introduction of Anaesthesia the surgery was barbaric and speed was the by word, Robert Listen set a world record of performing amputation in 33 seconds. Along with amputating the leg he also included the 3 fingers of his assistant in that same Fell swoop, all this was to alleviate the pain of surgery, the discovery of anaesthesia has helped in greater alleviation of pain of mankind than any other combination of discoveries.

In 1800 Sir Humphry Davy introduced nitrous oxide which was used as laughing gas. On March 30th, 1842 the first surgery was, performed under ether anaesthesia by Crawford long over a patient of neck tumour who was afraid of pain, but the discovery went unpublicized or long did not know the importance of his discovery. Long practiced this ether anaesthesia in three of his patients in1842.

In 1846, A Dentist T. G. Morton gave well planned anaesthesia for an impacted tooth using a valve device in Massachusetts general hospital By

1845, 37 operation were done in Massachusetts general hospital and by 1898, 3700 operation were done Surgery was on its way to science and art in a human setting.

DURATION OF OPERATION

Duration of operation considerably predisposes the patients for complications especially respiratory [6, 5] and cardiovascular complications [3]. In present series it was observed that if the duration of operation was more than one hour the incidence of postoperative complications was doubled. Other factors responsible for this may be that the complicated cases, abdominal surgery and surgery for resection and anastomosis take longer time and they themselves have greater morbidity and mortality [5, 6].

CONCLUSION

Postoperative complications after abdominal surgery occur in significant number and must be anticipated in time and proper measures instituted to control them. Incidence of postoperative complications is significantly higher in emergency surgery than in elective surgery.

REFERENCES

1. Bhansall SK & Sethna JR. Postoperative complications in intestinal obstructions. Ind. J. Surg. 32, 199, 1965.
2. Buckley and Jackson. Postoperative cardiac arrythmias. Anesthesia 22, 723, 1 961.
3. Dalielson RA. Differential diagnosis and treatment of oliguria in post-traumatic and postoperative patients. Surg. Clin. N. Am. 53, 697, 1975.
4. Dinnen P. Major infections in postoperative period. Surg. Clin. of N. Am. 44; 560, 1964.
5. Thusoo 1K, Gulati SM and Pandey KK. Incidence and pattern of postoperative chest complications after abdominal surgery. Ind. J. Surg. 39; 217, 1977.
6. Szeezepanski KP. Pleruo-pulmonary complications following major surgery, thoracic surgery excluded. Acta. Chir. Scana 139; 425, 1973.