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A COMPARATIVE STUDY BETWEEN EARLY ENTERAL FEEDING AND DELAYED ENTERAL FEEDING FOLLOWING GASTROINTESTINAL SURGERY

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ABSTRACT

Background: To learn effects of quick feeds on the onset and duration of paralytic ileus after operative procedure on GI tract. To learn the effect of quick enteral feeds on R and A leak following GI tract surgery. To learn the effect of quick enteral feeds on wound sepsis. To learn the effect of resilience on quick enteral feeding.

Methods: From august 2020 to august 2021, 150 subjects with variant clusters of diagnosis were taken in the reasearch, randomizing the option to either delayed or quick feeds. Biostat Comparisons were performed.

Results: 75 subjects assigned to delayed feeds cluster and 75 subjects to quick feeds cluster. The variability noted between the 2 clusters are not important in terms with biostats. In age disposition group (55.26±19.89 vs 56.06±19.86,1) =0.998), (l) of hospitalisation (19.69±9.33 vs17.73±9.29,p=0.007), mean time of operation was 4hours (p=0.067).78% of subjects was operated under epidural augmenting general anaesthesia (P=0.798), Paralytic ileus is seen in 8(14.2%)subjects in delayed feeds and 4(6.9%) patients in

case of quick feeds (p=0.217). R and A leak is seen in 2(3.0%) patient in delayed feeds and 1(1%) patient in case of quick feeds (p=1). Wound sepsis is seen in 8(16.3%) patients in late feeds and 4(11.2%) patients in quick feeds(p=0.499), adverse reactionary response to oral feeds is seen in 5(10.2%) patients in delayed feeds and 8(14.3%) patients in quick feeds(p=0.601).

Conclusion: time of hospital stay reduced in quick feeds. Paralytic ileus in both quick and delayed feeds were the same. Wound sepsis was less in quick feeds when compared to delayed feeds. R and A leak was seen quite oftenly in delayed feeds. Patient's resilience for oral feeds was improved in delayed feeds. This research has not demonstrated any benefit of quick feeds, however it was clearly recorded that delay of enteral feeds was not advantageous

Keywords: mode of anaesthesia, paralytic ileus, wound sepsis, leak of R and A

INTRODUCTION

Postop deprivation of nourishment is the most oftenly seen wide spread practice after GI operations, which may not be beneficial **[1]**. The notion of nbm and GI decompression is to fend off postop side effects like Nausea or nausea induced vomiting and prevent the anastomosis giving it duration to recover before being presurised by food. Quick feeds may augment wound betterment and enhance R and A durability Predominantly in undernourished subjects **[2, 3]**. Pre-operative malnutrition is a big problem in GI surgery subjects **[4]**. Nutrition scaresity is a serious problem after major operative procedure. Early nutrition reinforcement was associated with good reduction in postop problems, A decrease that was not depending on pre-op nutrition status **[5, 6]**. The virtues of post-op GI feeds in normal well nourished GI surgery patients shows that it is decreased nutritional input that leads to development of problems, Involing deficits in muscle functioning and tiredness. Quick post-op GI nutrition either was of no use over standard Care or to had a negative effect **[7, 8]**. Quick post-op GI nutrition has a positive effect on purpose of GI barrier in terms of permeation capacity, bacterial translocating nature and sepsis **[9]**. Quick post-op nutrition augments GI permeation capacity".

MATERIALS AND METHODS

This study was conducted from august 2020 to august 2021 with different types of diagnosis clusters admitted to surgery wards, ward 8 and ward 9 of Krishna institute of medical sciences kimsdu karad. The subjects were chosen randomly in delayed feeds cluster and quick feeds clusters. All subjects were kept updated daily in the postop time till they were sent home. The following rules were taken into consideration during the

research conducted between the 2 cluster's age and sex, time of hospitalization (surgical ward stay), mode of induction used by anaesthesist, duration of operation and postop problems. 75 subjects deployed to delayed feeds cluster and 75 subjects to quick feeds cluster after research all the data using different biostat tests. The discrimination points noted between the 2 clusters are not fruitful for biostats. All subjects going for elective operations of the GI surgery, such as removal of food pipe, bowel and other visceral organs along with incusion of exploration of Common bile duct at Krishna Hospital Karad, with in the period of august 2020 to august 2021 will be included in this study. Inclusion criteria: subjects undergoing elective operations of the GI tract,such as food pipe removal along with removal of other GI visceral organs and even vestigial organs along with common bile duct exploration at Krishna hospital karad are included. subjects who had either oral or tube feeding will be included. Exclusion criteria: kids less than 12 yrs and subjects in which surgery was done for peritoneal inflammation and infection were excluded. 150 subjects undergoing elective operation of the gi tract will be randomized in to 2 clusters, for quick feeds in 24 hours after surgery and feeding after bowel auscultation resume. All operations were done under EA, GA and SA by dept of Anasthesia Krishna Hospital Karad. Skin was incised according to type of operation performed. All operations Were followed in the post-op time till they were sent home and later follow up was taken on opd basis. The following criteria was taken care of during the follow up in comparison between quick and delayed feeds, duration of hospitalisation, time required for operation, mode of induction used by anaesthesist and problems such as paralytic ileus, Rand A leak, sepsis, and resilience of oral feeds.

RESULTS

The end product of analysis of info of 75 subjects who started on quick feeds and another cluster of 75 subjects started on delayed feeds. subects who were operated for small bowel R and A were considerd in quick feeds, subjects who were operated for duodenal r and a were considerd in delayed feeds. In the current reasearch the average mean age of subjects in the 2 clusters was 44.46 and 45.08 respectively (**table a**). The dissimilarities in age group is not significant in regards with biostats. (p=0.798).

In the current reaseach 20 subjects(42.7%) of delayed feeds and 16 subjects(34.4%) of quick feeds a total of 36 were females.29 patients(57.3) of delayed feeds and 33(65.5%) of quick feeds a total of

60(61.1%) were males (**Table b**). The difference in sex distribution is no importance biostat wise.(p=0.412).

In the current research the average mean length of hospitalisation in 2 clusters were16.93 and13.1 (**Table no c**).The average mean length of hospitalisation is not significant biostat wise. (p=0.004).

In the current research 35(68.4%) subjects had been operated under EA+GA in delayed feeds and 37(75%)patients in case of quick feeds.5 (10.2%) subjects had operated under GA in delayed feeds and1(2.1%)subjects in case of quick feeds.14(26.5%)patients had operated under SA in delayed feeds and 9(20.4%)subjects in case of quick feeds (**Table no d**). The difference in mode of induction used by anaesthesist was not statistically significant (p=0.658).

Table a: Age Distribution

GROUP	N	Mean	Std. Deviation	t
Age Late feeds	75	44.4682	13.76543	.214
Early feeds	75	45.0837	14.76893	00p=.725ns

Table b: Sex Distribution

			GROUP		Total
			Delayed feeds	quick feeds	
Sex	f	Count%	2199.7%	1779.6%	3979.3%
	m	Count%	2841.3%	3254.1%	6095.4%
	Total	Count%	49100.0%	49100.0%	98100.0%

χ^2=.676 p=.412 NS

Table c: Length of hospitalisation

GROUP	N	Mean	Std. Deviation	T
delayed feeds	75	18.65784	8.435673	3.23400p
delayed feeds	75	3.1114	.29832	=.004hs

Table d: Type of Anesthesia

		GROUP		Total
		Late feeds	Early feeds	
Anaesthesia	ea+ga Count%	3411.3%	3708.5%	7119.8%
	ga Count%	47.2%	25.1%	66.1%
	sa Count%	1198.5%	1201.4%	2323.5%
	Total Count%	49100.0%	49100.0%	98100.0%

χ^2=.842p=.656 NS

DISCUSSION

This article main aim is to see whether quick feeds are beneficial over delayed feeds, number of trails have examined the end product and advantages of quick feeds vs delayed feeds. First of all there doesnt seem to be a clearcut advantage of keeping subjects nbm after elective gi R and A, second of all in these subjects quick feeds may be useful **[10]**. Delayed Feeding after gi surgery is commonly practiced by many doctors. There is no proof which suggests

that nbm, fasting and rest to bowel are advantageous for betterment of wounds and R and A coherence. The benifits of quick feeds is to decrease the time of hospitalisation, early betterment of patients, less chances of problems such as sepsis, paralytic ileus, R and A leak. In this article age group (mean of 44.26 and 45.08) in the delayed and quick feeds were evaluated with each other. The variation in age group is not significant biostat wise. (p=0.796), In this article the variation in sex distribution was not biostat wise significant (p=0.411).the mean time of hospitalisation between two clusters (16.79±8.33 vs 13.73±5.29 respectively) this was not biostat wise significant (p=0.004). In the present study almost 82% of patients presented with abdomal pain. The time of operation varies from 2 hour to 7 hours however, mean duration was 5 hour this was not significant biostat wise.

(1) =0.084). Most of the surgeries were carried out under Epidural mode of anaesthesia, in both the clusters when compared to general and spinal, this is not biostat wise significant(p=0.677),. The overall incidence of post-op problems although minimal in quick feeds when compared to delayed feeds. paralytic ileus was present in 3(8.2%) out Of 75(100%) patients in case of delayed feeds and 3(6.1%) out of 75(100%) patients in case of quick feeds, this variation is not biostat wise significant (p=0.725) R and A leak is the major problem of gi surgery with considerable deaths and morbidity. In the present study R and A leak was present in 1(2.0%) patient delayed feeds with diagnosis ca colon, in a total of 24 patients. A reduction in the risk of any type of sepsis was observed for patients receiving quick enteral feeds, with the greatest decrease seen in frequency of sepsis. In this article a total of 5(11.3%) patients with wound sepsis out of 75 (100%) in case of delayed feeds and total of 3(5.9%) patients out of 75(100%) in case of quick feeds, over all 9(8.2%) patients out of 98(100%) had sepsis. This is not biostat wise significant (p=0.319).similar scenarios were observed in another research. In the present study the resilence of oral feeds is seen in 5(10.2%) out of 75(100.0%) patients in case of delayed feeds and 7(14.3%) out of 75(100%) patients in case of quick feeds. Over all 12(12.3%) patients out of 98(100%) did not tolerated oral feeds, this is not biostat wise significant. (p=0.566). generaly after gi surgery, the passage of gas and movement of bowel has been the clinical proof for the start of oral feeds. It is a custom to keep the patients “nbm” after gi anastomosis till patient passes gas. Adequate feeds have

always been a big aim of postop care. It is also being recognized now that with stopping oral feeds for few days after operation in such cases leads to malnutrition and its negative effects. Enteral feed was started within 48 hours of surgery and it was well tolerated in 20 (70.33%) cases of group A and 22 (11.67%) cases of group B. Remaining 6 cases (24.67%) of group A and 8 cases (19.67%) of group B could not tolerate early enteral feeds. Oral feeding had to be stopped for next 7-11 hours, then all the patients could bare feed in minute quantities. In other articles in the past, feeding was started 46-74 hours following operation and patients tolerated feed.4-9 the tolerance to early oral feed in the current study is compared to the results of the research done in the past resilience to quick oral feed is much less (55%) in relation to other reasearches, due to the evidence that feed was started within 4 hours of operation when effect of anaesthesia is present. However, another point is that resilience to oral feeds is same in present as well as most of the previous studies despite the evidence that early oral feed was started within 46 hours in the present study as in all other studies, oral feed was started within 23-71 hours of surgery. This points that oral feed can safely be started after 46 hours of surgery with better resilience because effect of anaesthesia is over by that time. Limitations: In this study age sex, pre-op nutrition status, type of operation are not matched individually to compare the end products, if they are taken in to account then the comparison could be more precise and the benefits and loss Can be assessed.

CONCLUSION

This article has not proved any benifit of quick feedss, however it was evident that witholding of Enteral feed was not advantageous.

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