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Review Article

The Effect of Early Nutrition Intervention on Rebleeding Patient with Eshophageal Varices After Ligation ; Literatur Review

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Abstract

Aims: Esophageal varices bleeding can be treated with ligation. Patients with active bleeding varices generally tend to have a fairly high incidence of rebleeding. Many studies explain that early feeding can increase the risk of recurrent bleeding.

Objective: The objective of this study to identify the effect of nutrition intervention on rebleeding after ligation in patient with esophageal varices.

Method: The method of this systematic review used PICO formulation (Population, Intervention, Comparison, and Outcome). This review used online database including, ProQuest, PubMed, ScienceDirect, Willey online, and Google Scholar with the search strategy used PRISMA. Article selected by inclusion criteria: Journal international, Full text, using experimental research and within at least 10 years publication, adult research respondent. We included 4 studies related to early nutrition intervention on rebleeding Patient with Eshophageal Varices After Ligation who have been tested for quality with CASP and JBI.

Result: The result if this study only 4 article met criteria inclusion. The result of this systematic review on 4 articles explain that feeding nutrition is safe not cause bleeding in patient and early eating had no impact on how frequently ligation patients experienced recurrent bleeding. Providing nutrition using the ligase approach has been shown to be both feasible and safe.

Keywords:

Eshophageal Varices, Feeding Nutrition, Ligation

INTRODUCTION

The primary complication of people with hepatitis cirrhosis brought on by portal hypertension is esophageal variceal hemorrhage (1). Esophageal Varicoal Ligation might be used to address this bleeding (EVL). There is a treatment option known as EVL since numerous studies show that it is preferable than endoscopic injection sclerosing therapy (EIS). In hospitals, EVL is being used to treat bleeding esophageal varices. However, it has been noted that rebleeding happens in about 20% of patients, which can raise the death rate by 40% (2).

Individuals who have active bleeding varices typically experience a high rate of rebleeding. The death rate rises due to the estimated 40% incidence of bleeding that happens within 5 days after the initial bleeding (3). Lower hematocrit, portal vein thrombosis, high serum bilirubin and low albumin levels, the presence of encephalopathy, HCC, end-stage liver disease score, Child-Pugh score, hepatic venous pressure gradient (HVPG) over greater than or equal to 20 mmHg, infection development, endoscopic appearance (active bleeding and clot in varix), and shock are all indicators of rebleeding or increased mortality (1).

According to numerous studies, increasing portal pressure caused by early feeding increases the likelihood of recurrent bleeding following EVL (4), early feeding of patients with a regular meal following ligation was safer and carried a reduced risk of infection than patients whose feeding was postponed. According to additional research, early feeding with a liquid meal following esophageal ligation did not increase patients' risk of rebleeding(5) .

It is not known whether the incidence of early recurrent bleeding is connected to EVL because studies on the effect of feeding after EVL are rare. According to earlier studies, fasting should always last two to three days. In patients with cirrhosis, fasting can lead to nutritional problems and the development of ascites, which can lengthen the hospital stay (6). Consequently, the purpose of this comprehensive analysis was to determine whether early nutritional assistance in patients with esophageal varices following ligation can lead to recurrent bleeding.

METHODS

Research Plan

A systematic review design was used for this study. In order to determine whether nutritional therapy can affect recurrent bleeding in patients with esophageal varices who are receiving ligation therapy, research questions were developed using PICO (population, intervention, comparison, and outcome). PICO stands for patients with esophageal varices, I for nutritional therapy, and O for recurrent bleeding.

Search Techniques

Use online databases to conduct a PRISMA-compliant article search. ProQuest, Sage Journals, ScienceDirect, Scopus, and SpringerLink are a few examples of online databases. The terms "esophageal varices" AND "early nutrition" were used in the database search above (Rebleeding after ligation). Diagram 1 depicts the procedure for doing a literature search.

Article Criteria

The inclusion criteria for choosing papers were: (1) those written in English, (2) those published in international journals within the previous five years (2018-2022), and (3) those employing an experimental research design on adult patients (over 18). Articles that don't have full text availability fall under the exclusion criteria.

Study Quality Evaluation

Before evaluating the article, the author tests its viability and quality. For publications with RCT designs, the Critical Appraisal Skill Program Randomized Controlled Trial Standard Checklist (CASP-RCT) was utilized, and for articles with quasi-experimental designs, the JBI Critical Appraisal Checklist for Quasi-Experimental Research. The quality assessment results of the included studies were all randomized peace trials (RCT) of good quality where out of 11 questions thatsubmitted there are 10 questions with the answer yes.

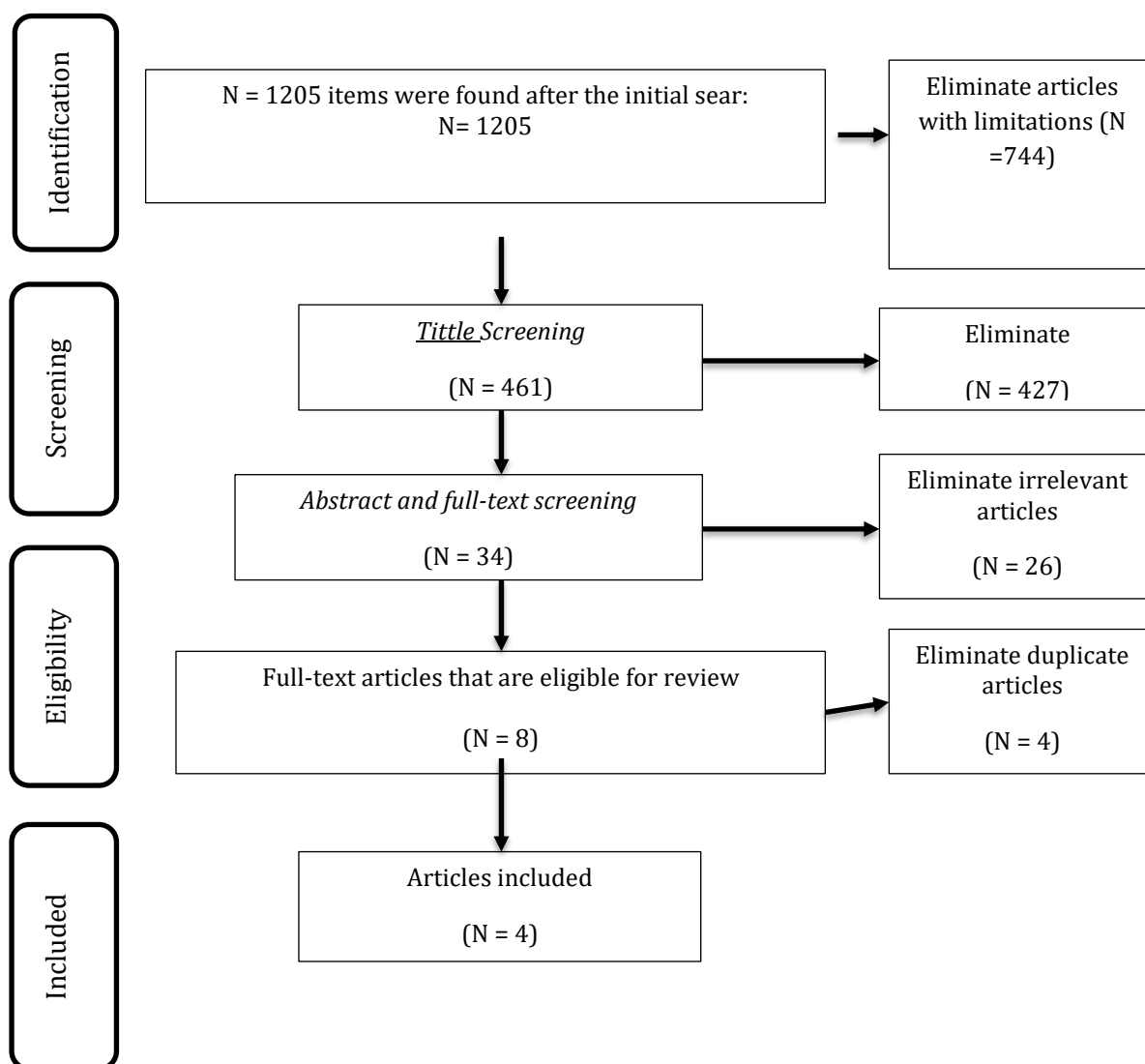


Figure 1 shows how articles are chosen

A total of 1205 items were found in the initial search results from five databases. The next step is to remove articles by restricting the database, namely by choosing only research publications, articles written in English, and articles released during the last five years. The author also removes pointless titles and abstracts. Among the remaining publications, the title, abstract, and research findings were examined. Duplicate articles were also removed, leaving 4 articles that matched the author's objectives—2 RCT studies and 2 prospective, comparative effectiveness studies.

Table 1 below provides a summary of the scientific article search results for this systematic review.

Tabel 1. Research Article Summary

No.	Author (Year)	Title	Method and numbers of sample	Results	Conclusion
1.	Goda et al., (2018)	Safety and feasibility of early oral nutrition after endoscopic treatment for patients with liver cirrhosis: A historical prospective and comparative effectiveness study	Patients were chosen among those who had been admitted to the Mansoura Emergency Hospital's Hematemesis Unit with acute esophageal variceal hemorrhage. In this study, 90 patients were enrolled, and they were split into two equal groups: group I had 45 participants in the early feeding group and group II had 45 participants in the late feeding group.	In terms of how treatment complications were distributed among the groups that were evaluated, there were no statistically significant differences. In both groups, the hemostatic success rate was 100%. Throughout the first five days, neither group had any instances of rebleeding or deaths.	With effective endoscopic therapy for bleeding esophageal varices, early feeding on a liquid diet did not increase rebleeding or death in the first five days following endoscopic intervention.
3.	Wang et al., (2022)	Safety and feasibility of early oral nutrition after endoscopic treatment for patients with liver cirrhosis: A historical prospective and comparative effectiveness study	Patients from Qilu Hospital of Shandong University in China who had gastric varices as a side effect of cirrhosis and were receiving endoscopic therapy were enrolled in this historical prospective study. The ON group, which consisted of 197 patients, was enrolled	There were no discernible changes between the ON and PN groups' rates of variceal rebleeding ($P = 0.586$) or mortality ($P = 1.000$) during the course of the 42-day follow-up. However, the ON group experienced a significant reduction in expenses ($P 0.001$) and mean days spent in the hospital ($P 0.001$). Also, compared to	Following endoscopic treatment for individuals with cirrhosis, the ON group was recommended because it had proven to be safe and practicable.

No.	Author (Year)	Title	Method and numbers of sample	Results	Conclusion
			prospectively, whereas the PN group, which consisted of patients who fasted for more than 48 hours, was matched retrospectively in a 1:1 ratio. Variceal rebleeding was the primary objective, and death and unfavorable events at 42 days of follow-up were the secondary endpoints. The length and expense of the hospital stay, the severity of the inflammatory components, the length of the defecation, and patient satisfaction were assessed.	the PN group, the ON group had lower blood C-reactive protein levels (P = 0.002), shorter defecation times (P 0.001), and greater satisfaction ratings (P 0.001). Tissue adhesive dosage and time on diet were associated, according to a linear regression analysis (P = 0.038; 95% CI, 0.135-4.516).	

Tabel 2. Research Article Summary

No.	Author (Year)	Title	Method and numbers of sample	Results	Conclusion
1.	Sing Sidhu et al (2019)	Early feeding after esophageal variceal band ligation in cirrhotics is safe: Randomized controlled trial	RCTs Sample: 49 patients fed late following ligation treatment and 52 early feeding groups.	In the early and delayed feeding groups, there were 52 and 49 patients, respectively. Both very early and delayed rebleeding rates were comparable in the two groups [2]	After a successful variceal ligation for esophageal varices, early feeding with a regular solid diet is safe, offers superior nutrition, and has a lower incidence of infection and

No.	Author (Year)	Title	Method and numbers of sample	Results	Conclusion
				(3.84%) vs 1 (2.04%); P 0.99] and [2 (3.84%) vs 4 (8.16%); P = 0.75]. Comparing the early feeding group to the delayed feeding group, the early feeding group's protein and calorie intake was much better, and the early infection in active bleeding was significantly lower. In all groups, the one-month death rate was similar [3 (5.76%) vs. 4 (8.16%); P = 0.75].	bleeding than delayed feeding.
2.	Ginho-lo et al., (2015)	A controlled trial of early versus delayed feeding following ligation in the control of acute esophageal variceal bleeding	36 patients were included in the early feeding group and 34 patients were enrolled in the delayed feeding group for this example RCT. Initial data compares favorably for the two groups. Both groups had 100% initial hemostasis, and neither group saw any very early rebleeding.	Both groups experienced adverse effects at about the same rates. The early-feeding group's average hospital stay was 6.0 2.4 days (range: 2–17 days), while the late-feeding group's average stay was 7.5 3.1 days (range: 3–22 days). tardy (p 0.05)	Hemostasis is unaffected by early feeding with a liquid diet following successful endoscopic therapy for bleeding varices.

The research in this study received responses from 34 to 197 participants. Two investigations looked at the group of individuals with esophageal varices that were bleeding and who had had ligation therapy (binding of varices). Two more studies conducted their research on populations of patients who had liver cirrhosis. The four trials included in this comprehensive review demonstrated that dietary supplementation is safe for those who have had ligation therapy for bleeding esophageal varices.

DISCUSSION

Esophageal variceal hemorrhage, a frequent and fatal consequence of liver cirrhosis, occurs in the esophagus. Esophageal Varicoal Ligation might be used to address this bleeding (EVL). Because EVL is preferable to Endoscopic Injection Sclerotherapy (EIS), there is the possibility of using it for treatment (2). Patients with cirrhosis of the liver frequently experience recurrent bleeding following ligation therapy, so oral feeding after varicose ligation in cirrhosis is typically delayed out of concern for rebleeding (7). Long-term fasting might affect cirrhotic patients' nutrition and cause them to develop ascites, perhaps lengthening their hospital stay (6).

According to the review article's findings, early eating had no impact on how frequently ligation patients experienced recurrent bleeding. Sidhu et al research 's from 2019 showed that giving nourishment after 4 hours of ligation was safe. Active bleeding was much less in the early feeding group than in the delayed feeding group, and protein and calorie intake were both improved. Delayed feeding did not increase the risk of rebleeding compared to feeding with a liquid meal after 4 hours and a conventional solid diet 72 hours after EVL (6). No bleeding was discovered five days following the ligation procedure (5).

Early or late eating has no negative impacts on either group and has no impact on balance or homeostasis (2). The length of

stay was significantly shortened in patients who had ligation and were fed earlier. Early feeding yielded outcomes comparable to delayed refeeding among patients at low risk of nonvariceal hemorrhage (8). The circumstances surrounding variceal hemorrhage and bleeding peptic ulcers are significantly dissimilar. According to a review of feeding patients with upper gastrointestinal bleeding (9), feeding should be postponed for at least 48 hours following endoscopic therapy because immediate feeding could shift blood flow to the splanchnic circulation, which could eventually result in higher pressure and a higher risk of varicose vein rebleeding.

There was no discernible impact of early feeding on recurrent bleeding following ligation after 42 days of observations (10). However, the ON group experienced considerably fewer mean hospital days (P 0.001) and expenses (P 0.001) than the control group. Also, compared to the PN group, the ON group had lower blood C-reactive protein levels (P = 0.002), shorter defecation times (P 0.001), and greater satisfaction ratings (P 0.001). Tissue adhesive dosage and time on diet were associated, according to a linear regression analysis (P = 0.038; 95% CI, 0.135-4.516). Therefore, it may be concluded that the administration of oral nourishment has more evidence of being safe and practical, allowing for its recommendation in patients with liver cirrhosis following endoscopic treatment.

CONCLUSION

As a result of the systematic review's findings, it is possible to draw the conclusion that providing nutrition using the ligase approach has been shown to be both feasible and safe. In order to preserve homeostasis, early feeding with a liquid diet following endoscopic therapy did not result in esophageal variceal bleeding, increased rebleeding, or increased mortality in the first five days after endoscopic intervention. It also offers greater nourishment and reduces the likelihood of infection. This research can

be used as evidence based for nurses in providing nutrition to patients with esophageal varices after endoscopy.

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