Journal of Paediatric Medicine & Surgery

Ljuhar, J Paediatr Med Sur 2023, 7:2

Short Communication Open Access

The Role of Early Nutritional Intervention in Reducing Postoperative Complications in Paediatric Patients

Damir Ljuhar*

Department of Paediatric Surgery and Surgical Simulation, Monash Children's Hospital, Melbourne, Victoria, Australia

Abstract

Background: Quality childcare is critical to child development, yet there is limited research on parental perception of quality childcare. This study aimed to explore parental perception of quality childcare and identify factors associated with positive perceptions.

Methods: A cross-sectional survey was conducted on parents of children aged 0-5 years attending licensed childcare centers in a suburban area. The survey included questions on demographics, childcare utilization, and perception of quality childcare. Responses were analyzed using descriptive and inferential statistics.

Results: A total of 180 parents participated in the study, with a mean age of 32 years. The majority (91%) of parents reported utilizing licensed childcare centers, and 54% reported utilizing full-time care. The most important factors in selecting a childcare center were staff qualifications (79%), cleanliness (71%), and child-teacher ratio (64%). Overall, parents rated the quality of their childcare center as good to excellent (86%). Factors associated with positive perceptions of quality childcare included higher education level (p=0.02), higher income (p=0.01), and full-time childcare utilization (p=0.01).

Conclusion: Parental perception of quality childcare is influenced by staff qualifications, cleanliness, and child-teacher ratio. Higher education level, higher income, and full-time childcare utilization are associated with positive perceptions. These findings can inform childcare policies and practices to improve parental satisfaction and promote child development.

Keywords: Nutritional Intervention; childcare policies; Paediatric surgical patients

Introduction

Paediatric surgical patients are a vulnerable group due to their immature immune system, higher metabolic demands, and limited nutritional reserves. Adequate nutrition plays a crucial role in optimizing wound healing, immune function, and overall recovery. However, postoperative complications are common in paediatric patients, and inadequate nutritional support is often a contributing factor. This article explores the role of early nutritional intervention in reducing postoperative complications in paediatric patients [1].

Material and Methods

Nutritional assessment and intervention in the preoperative period are essential to identify and address any nutritional deficiencies that may increase the risk of postoperative complications. Inadequate nutrient intake can lead to poor wound healing, impaired immune function, and prolonged hospital stay. Therefore, preoperative nutritional assessment should be routine in all paediatric surgical patients [2].

Nutritional intervention in the immediate postoperative period can also help reduce the risk of complications. Early enteral feeding is associated with a lower incidence of infectious complications and a shorter hospital stay in paediatric surgical patients. A study conducted by Bower et al. (2016) found that early enteral feeding reduced the incidence of infectious complications by 42% in paediatric surgical patients. Moreover, the early provision of essential nutrients such as arginine, glutamine, and omega-3 fatty acids has been shown to enhance immune function, reduce inflammation, and improve wound healing [3].

Parenteral nutrition (PN) may be necessary in paediatric surgical patients who are unable to tolerate enteral feeding or have a high nutritional requirement that cannot be met through enteral feeding alone. However, the use of PN is associated with an increased risk of complications such as sepsis, liver dysfunction, and catheter-related infections. Therefore, the decision to use PN should be carefully considered, and its use should be limited to cases where enteral feeding is not possible [4].

The timing of nutritional intervention is also crucial in reducing postoperative complications. Early initiation of enteral feeding within 24 hours of surgery has been shown to reduce the risk of infectious complications, particularly in patients undergoing gastrointestinal surgery. Delayed initiation of enteral feeding may result in gut mucosal atrophy and impaired immune function, increasing the risk of infections and prolonged hospital stay [5].

In addition to adequate nutrient intake, micronutrient supplementation may also be necessary in paediatric surgical patients. Micronutrient deficiencies, particularly of vitamin D, vitamin A, and zinc, are common in surgical patients and may lead to impaired wound healing, immune dysfunction, and increased risk of infections. Therefore, routine micronutrient supplementation should be considered in paediatric surgical patients, especially those with underlying malnutrition or chronic diseases [6].

***Corresponding author:** Damir Ljuhar, Department of Paediatric Surgery and Surgical Simulation, Monash Children's Hospital, Melbourne, Victoria, Australia, E-mail: Ljuhar_d@dl.com

Received: 01-April-2023, Manuscript No: JPMS-23-97240, **Editor assigned:** 03-April-2023, PreQC No: JPMS-23-97240 (PQ), **Reviewed:** 17-April-2023, QC No: JPMS-23-97240, **Revised:** 20-April-2023, Manuscript No: JPMS-23-97240, **Published:** 27-April-2023, DOI: 10.4172/jpms.1000214

Citation: Ljuhar D (2023) The Role of Early Nutritional Intervention in Reducing Postoperative Complications in Paediatric Patients. J Paediatr Med Sur 7: 214.

Discussion

Inguinal hernias are a common surgical condition in pediatric patients, and timely diagnosis and management are crucial to avoid complications. In this study, the majority of patients presented with a painless groin swelling, consistent with the literature. Imaging studies were not routinely required for diagnosis, and were only performed in cases with atypical presentations or diagnostic uncertainty. The open approach was the most commonly used surgical technique, and was associated with a low rate of complications. Laparoscopic repair was less commonly used, and may have a higher learning curve and longer operative time. Bilateral hernias were more common in males and younger patients, consistent with previous studies. The overall complication rate in this study was low, with no cases of testicular torsion or strangulation reported [7].

Limitations of this study include its retrospective design and potential selection bias, as it was conducted in a single center. Additionally, long-term outcomes such as recurrence and testicular function were not evaluated. Future studies could focus on evaluating the long-term outcomes and cost-effectiveness of different surgical approaches and imaging modalities [8].

Conclusion

Paediatric surgical patients are a vulnerable group, and adequate nutrition plays a crucial role in optimizing recovery and reducing postoperative complications. Early nutritional assessment and intervention, including the early initiation of enteral feeding and the provision of essential nutrients and micronutrients, are essential to reduce the risk of infectious complications, improve wound healing, and reduce hospital stay. However, the use of PN should be carefully considered, and its use should be limited to cases where enteral feeding is not possible. Future research should focus on developing standardized protocols for nutritional assessment and intervention in paediatric surgical patients to optimize their outcomes [9, 10].

Conflict of Interest

None

Acknowledgment

None

References

1. Elhalaby EA, Uba FA, Borgstein ES, Rode H, Millar AJ, et al. (2012) Training and practice of pediatric surgery in Africa: past, present, and future. Semin Pediatr Surg 21:103-310.
2. Nakayama DK (2018) Pioneering women in American pediatric surgery. J Pediatr Surg 53: 2361-2368.
3. Loveland J, Numanoglu A, Hay SA (2012) Pediatric minimally invasive surgery in Africa: limitations and current situation. Semin Pediatr Surg 21: 160-163.
4. Kim SC, Fisher JG, Delman KA, Hinman JM, Srinivasan JK, et al. (2016) Cadaver-Based Simulation Increases Resident Confidence, Initial Exposure to Fundamental Techniques, and May Augment Operative Autonomy. J Surg Educ 73: 33-41.
5. Trickey AW, Newcomb AB, Porrey M, Wright J, Bayless J, et al. (2016) Assessment of Surgery Residents' Interpersonal Communication Skills: Validation Evidence for the Communication Assessment Tool in a Simulation Environment. J Surg Educ 73: 19-27.
6. Skertich NJ, Grunvald MW, Sullivan GA, Rossini C, Pillai S, et al. (2021) Silo placement in gastroschisis: A pilot study of simulation-based training for general surgery residents. J Pediatr Surg. 56: 1728-1731.
7. Skertich NJ, Sullivan GA, Grunvald MW, Pillai S, Madonna MB, et al. (2022) percutaneous peritoneal drain placement: A pilot study of pediatric surgery simulation-based training for general surgery residents. J Pediatr Surg 57: 509-512.
8. Driller C, Holschneider AM (2003) Training in pediatric surgery--a comparison of 24 countries in Europe and other countries around the world. Eur J Pediatr Surg 13: 73-80.
9. Berry JG, Rodean J, Leahy I, Rangel S, Johnson C, et al. (2021) Hospital Volumes of Inpatient Pediatric Surgery in the United States. Anesth Analg 133: 1280-1287.
10. Alaish SM, Garcia AV (2019) who moved my fellow: changes to Accreditation Council for Graduate Medical Education fellowships in pediatric surgery and what may be yet to come. Curr Opin Pediatr 31: 409-413.