

Research Article

Management of Postoperative Eviscerations in the General Surgery Department of CHU Ignace Deen/Conakry (Guinea)

**Kondano Saa Yawo^{1,*} , Kaba Mohamed¹, Douno Alpha¹,
Bald éFatoumata Lamarana¹, Konate Adama¹, Camara Alpha¹, Fofana Naby¹,
Koundouno Aly Mampan², Soumaoro Labile Togba¹, Toure Aboubacar¹**

¹Ignace Deen University Hospital Center, Faculty of Health Sciences and Techniques, Gamal Abdel Nasser University of Conakry, Conakry, Guinea

²Regional Hospital of Kankan, Faculty of Health Sciences and Techniques, Gamal Abdel Nasser University of Conakry, Conakry, Guinea

Abstract

Introduction: The aim of the study was to evaluate the management of eviscerations in the general surgery department. **Materials and methods:** retrospective, descriptive study over one year (January to December 2024), conducted in the general surgery department of CHU Ignace Deen. All patient records admitted and operated on in the department who experienced postoperative evisceration and those received for postoperative evisceration were included in the study. The variables were sociodemographic, clinical, therapeutic, and evolutionary. **Results:** during the study, post-operative eviscerations accounted for 3.9% of all service activities (N= 1424). The average age was 36.3 years, with extremes of 12 and 75 years. There was a female predominance (78.57%), with a sex ratio (M/F) of 0.27. The coverage of care-related expenses was provided by the family (75%). The initial diagnosis was dominated by cesarean sections (42.86%), followed by generalized acute peritonitis (25%). The average time to evisceration occurrence was 8.2 ±23 days, with extremes of 3 and 18 days. The postoperative complication that occurred before the onset of evisceration was infection of the surgical site (39.29%) and fistula (12.5%). Abdominal pain was the main reason for consultation (100%). The site of evisceration was median supra and infraumbilical (21.43%). The most eviscerated organ was the small intestine (64.29%). All patients were operated on (100%). Patients were operated on urgently in 64.29% of cases. An intestinal suture was performed in 7 patients (12.5%), intestinal resection in one patient (1.78%), a layer-by-layer wall repair was performed in 53 patients (94.64%), and the Paletot technique was used in 3 patients (5.36%). The postoperative outcomes were uncomplicated in 41 patients (73.21%), we noted an infection at the surgical site in 9 patients (16.07%) and a re-evisceration in one patient (1.79%). We recorded 3 deaths (5.36%). The average length of hospital stay was 18±3.2 days. The postoperative outcomes were uncomplicated in 41 patients (73.21%), we noted an infection at the surgical site in 9 patients (16.07%) and a re-evisceration in one patient (1.79%). We recorded 3 deaths (5.36%). The average length of hospital stay was 18±3.2 days. **Conclusion:** eviscerations are quite common and most often occur in an emergency context.

Keywords

Postoperative Evisceration, Management, Ignace Deen, Guinea

*Corresponding author: kondanosyawo@gmail.com (Kondano Saa Yawo)

Received: 22 July 2025; **Accepted:** 1 August 2025; **Published:** 30 August 2025



1. Introduction

Serious postoperative complications, eviscerations are a significant source of morbidity and mortality in resource-limited countries, where healthcare systems lack infrastructure and skilled manpower [1, 2]. They are due not only to inadequate closure of the abdominal wall but also to uncontrolled infection at the surgical site and insufficient postoperative follow-up, exacerbated by limited human and material resources [3]. They most often occur in emergencies under conditions of high workload and illicit surgical practices. The management of postoperative eviscerations represents a major challenge in healthcare facilities in Guinea, where morbidity and mortality remain high, particularly after digestive emergencies [3-5]. This management is faced with a crucial lack of financial resources to provide quality care. The aim of the study was to evaluate the management of eviscerations in the general surgery department.

2. Materials and Methods

This was a one-year retrospective descriptive study, from January to December 2024, conducted in the general surgery department of the Ignace Deen University Hospital Center. All records of patients admitted and operated on in the department who experienced postoperative complications that included evisceration, as well as those received for postoperative evisceration, were included in the study; incomplete records were excluded. Simple random sampling was used, and the sample size was calculated using OpenEpi. The analysis was performed using Stata 16. The studied variables included sociodemographic, clinical, therapeutic, and evolutionary factors.

3. Results

During the study, we collected 56 cases of postoperative evisceration, representing 3.9% of all activities of the service (N= 1424). The average age was 36.3 years, with extremes of 12 and 75 years; the age group of 15 to 30 years was the most frequent with 27 cases (48.21%), followed by the 30 to 45 age group (32.14%), over 45 years (14.29%), and under 15 years (5.36%). There was a female predominance (78.57%), with a sex ratio (M/F) of 0.27. The cases involved housewives (48.21%), students (21.43%), traders (19.64%), and workers (10.71%). Patients were referred in 39 cases (69.64%). The coverage of costs related to care was ensured by the family (75%), the patients (16.07%), companies (7.14%), and insurance (1.79%). The initial diagnosis was dominated by cesarean sections (42.86%), followed by generalized acute peritonitis (25%), appendicitis (10.71%), acute intestinal obstructions (8.93%), uterine myomas (7.14%), and dolichocolon (5.35%). The average time to the onset of evisceration was 8.2 ± 23 days, with extremes ranging from 3 to 18

days. Eighteen patients had evisceration 10 to 15 days after surgery (32.14%), fifteen patients experienced it after more than 15 days (26.79%), twelve patients had it less than 5 days after (19.64%), and eleven patients had it between 5 to 10 days (19.64%). The postoperative complication that occurred before the onset of evisceration was infection of the surgical site (39.29%) and the fistula (12.5%). Abdominal pain was the main reason for the consultation (100%), followed by the emergence of viscera through the surgical wound (73.21%), cough (44.64%), vomiting (41.07%), and diarrhea (19.64%). On general examination, there was pallor (67.86%), anorexia (21.43%), hypotension (16.07%) and weight loss (7.14%). The site of evisceration was median above and below umbilical (21.43%), Pfannenstiel (39.28%), median under umbilical (23.21%), median above umbilical (12.5%). The most eviscerated organ was the small intestine (64.29%), the omentum (21.12%) and the colon (14.29%). The eviscerated organs were covered with false membranes (30.36%), and necrotic (1.78%). The cases involved fixed evisceration (67.86%) and mobile (32.14%). All patients underwent surgery (100%), performed urgently in 29 cases (64.29%) and planned in twenty-seven cases (48.21%). Intestinal sutures were performed on 7 patients (12.5%), intestinal resection on one patient (1.78%), plan-by-plan abdominal wall repair on 53 patients (94.64%), and the Paletot technique on 3 patients (5.36%). The outcomes were straightforward for 41 patients (73.21%), an infection of the surgical site was noted in 9 patients (16.07%), and re-evisceration occurred in one patient (1.79%). We recorded 3 deaths (5.36%).

The average length of hospital stay was 18 ± 3.2 days, with extremes of 10 and 46 days. Twenty-seven patients had a hospitalization of 15 to 30 days (48.21%), fifteen had less than 15 days (26.79%), and fourteen had more than 30 days (25%).

4. Discussion

The rate of evisceration reported in our series is comparable to that in the literature. In developed countries, the dehiscence of the wall can reach up to 3% of incisions, with or without evisceration [6-8]. The average age reported in our cohort is close to that of African authors; K âta S et al. in Mali reported an average age of 34.2 years [9]. Teklewold et al. in Ethiopia reported an average age of 29.8 years (extremes: 1-80 years) among 41 patients with abdominal dehiscence, mostly in the age group ≥ 41 years (51.2%) during a multicentric study [10].

No concordance on gender; several studies conducted in Pakistan, Poland, and Bosnia have shown a male predominance with a sex ratio varying between 2 to 3 to 1. In the international literature, most studies find a male predominance in post-operative eviscerations, with a male/female sex ratio ranging from 2.3/1 to 2.8/1 [11-13]. In contrast, our

series and the one from Mali report a female predominance (52.8%) [14]. These differences highlight the importance of local specifics: types of interventions, delays in care, and population characteristics.

The cesarean section was the main initial indication leading to postoperative evisceration in Guinea (42.9%). Although this Malian series does not explicitly detail cesarean sections, it points out that gynecological-obstetrical interventions are frequent, corresponding to a significant proportion of emergency laparotomy cases [9]. Cesarean section is recognized as a major factor in dehiscence, especially in the presence of infection or suboptimal technique. One study indicates an incidence of evisceration of up to 3.6-29% after gynecological/obstetrical laparotomy, including cesarean sections [14, 15].

The average time to the occurrence of evisceration noted in our sample aligns with data from the literature, where the occurrence of evisceration is between the 4th and 14th postoperative day [16-18]. In most practices, the preferred method for closing the abdominal wall after evisceration or laparotomy remains layer-by-layer closure, which involves separately suturing the peritoneum, muscles, and skin [19, 20].

The success rate in our series is similar to that in the literature [21]. The overall mortality during a recent review was estimated at 16%; in emergency abdominal surgery, deaths after evisceration vary from 15-28%, and can reach up to 37% in a Turkish series [22-24]. The Guinean series shows good results compared to the global literature: inheriting a low mortality rate (5.4%), a reduced re-evisceration rate (1.8%), and a surgical site infection rate that meets standards, these figures demonstrate a satisfactory level of surgical and post-operative management in a resource-limited setting.

The length of stay was shorter in our study than that observed in European and pediatric series, but is within the expected range.

Conclusion: Eviscerations are quite common and occur most often in an emergency context. The initial surgical indications are dominated by cesarean sections and acute generalized peritonitis. The management is mainly surgical and improves the prognosis.

Abbreviations

CHU University Hospital Center

Conflicts of Interest

The authors declare no conflicts of interest.

References

- [1] Kathryn M, Weiser Thomas G. Real-world implementation challenges in low-resource settings. *The Lancet Global Health* 2021; 9(10): e1341 - e1342.
- [2] Aya M Riad, Aisling Barry, Stephen R Knight, Carlie J Arbaugh, Parvez D Haque, Thomas G Weiser, Ewen M Harrison. Perioperative optimisation in low- and middle-income countries (LMICs): A systematic review and meta-analysis of enhanced recovery after surgery (ERAS). *J Glob Health*. 2023; 13: 04114. <https://doi.org/10.7189/jogh.13.04114>
- [3] Barry MS, Diallo MB, Fofana H, Barry B, Tour éA, et al. (2023) Factors Associated with Postoperative Mortality in the General Surgery Department of Ignace Deen Hospital of Conakry University Hospital. *J Surg* 8: 1890-1900 <https://doi.org/10.29011/2575-9760.001890>
- [4] Als ény Diallo, Naby Laye Youssouf Camara, Boubacar Barry, Mohamed Albert Diawara, Ansoumane Conde, Facely Conde, Naby Fofana, Labile Togba Soumaoro, Houssein Fofana, Aboubacar Toure. Profile and Management of Surgical Emergencies at the Anaim Hospital in Kamsar (Guinea). *Journal of Surgery*. 2023; 11(5): 103-106. <https://doi.org/10.11648/j.js.20231105.13>
- [5] RaviOodit, BruceM. Biccarrd, EugenioPanieri, AdrianO Alvarez, MariannaR. S. Sioson, SalomeMaswime. Guidelines for Perioperative Care in Elective Abdominal And Pelvic Surgery at Primary and Secondary Hospitals in Low Middle-Income Countries (LMIC's): Enhanced Recovery After Surgery (ERAS) Society Recommendation. *WorldJSurg* (2022) 46: 1826-1843. <https://doi.org/10.1007/s00268-022-06587-w>
- [6] Grigoriadis C, Vezakis A, Salakos N, Triantafyllidou O, Vlahos NF. Successful management of evisceration occurred after exploratory laparotomy for bilateral ovarian micropapillary serous borderline tumors. *G Chir*. 2013 May 3; 34(4): 128-131.
- [7] Alhassane Traor é Bakary Tientigui Demb é Ad égn é Togo, Lassana Kant é Madiassa Konat é Ibrahima Diakit é Simo Notue Fabienne Laurence, Boubacar Karem é Abdoulaye Diarra, Amadou Traor é Mahamane Djibo, Gangaly Diallo. Post-Operative Peritonitis: Diagnostic Problems, Morbidity and Mortality in Developing Countries. *Surgical Science*, 2014, 5, 363-367.
- [8] Diawara Mohamed Albert, Keita Doubany Mariame, Keita Doubany Mariame, Guirassy Mariama II, Fofana Naby, Camara Soriba Naby, Fofana Houssein, Toure Aboubacar. Pre-cose Post-Operative Complications of Abdominal Surgery at the Communal Medical Center of Ratoma (CMC Ratoma). *Journal of Surgery* 2024, 12(5): 105-109.
- [9] Sidiki Keita, Koniba Keita, Lamine Soumar é Moussa Sissoko, Mahamadou Coulibaly, Oumar Sacko, Sekou Koumar é Adama K. Koita, Souma éa Keita, Zimogo Zi é Sanogo. *Surgical Science* 2020; 11(12): 428-434. ID: 105923, 7.
- [10] Fisseha Temesgen, Abay Gosaye, Nichole Starr, Woubedil Kiflu, Hana Getachew, Belachew Dejene, Amezene Tadesse, Miliard Derbew, Tihitena Negussie. Early Outcome of Laparotomy Wounds in Pediatric Patients in TASH, Addis Ababa, Ethiopia: A Six-Months Prospective Study. *Ethiop J Health Sci*. 2021 Jan; 31(1): 111-118. <https://doi.org/10.4314/ejhs.v31i1.13>

- [11] Atta ul Rehman Saadi, Muqddas Niaz, Rabia Bashir, Muhammad Ahsan, Muhammad Zeeshan, Muhammad Huzaifa Suleman. Sociodemographic and operative factors associated with abdominal wound dehiscence in midline laparotomy. *Journal of Population Therapeutics & Clinical Pharmacology* 2024; 1. 31(6): 1137-1143.
- [12] Muhammad Najm-us-Saqib Khan, Abul Hassan Naqvi, Khalid Irshad, Abdul Rashid Chaudhary. Frequency and risk factor of abdominal wound dehiscence. *J Coll Physicians Surg Pak*. 2004 Jun; 14(6): 355-7.
- [13] Kerim Bora Yılmaz, Melih Akıncı, Lütfi Doğan, Niyazi Karaman, Cihangir Özasan, Can Atalay. A prospective evaluation of the risk factors for development of wound dehiscence and incisional hernia. *Ulusal Cer Derg* 2013; 29: 25-30
<https://doi.org/10.5152/UCD.2013.06>
- [14] Valentin Nicolae Varlas, Irina Bălescu, Roxana Georgiana Varlas, Al-Aloul Adnan, Alexandru George Filipescu, Nicolae Bacalbas and Nicolae Suci. Complete Abdominal Evisceration After Open Hysterectomy: A Case Report and Evidence-Based Review. *J. Clin. Med.* 2025; 14: 262-276.
- [15] Kaundinya Kiran Bharatam, P K Sivaraja, N J Abineshwar, Vasundhara Thiagarajan, D A Thiagarajan, Sudeep Bodduluri, K B Sriraman, A Vasantha Ragavan, Shanmuga Priya. The tip of the iceberg: Post caesarean wound dehiscence presenting as abdominal wound sepsis. *Int J Surg Case Rep*. 2015; 9: 69-71.
<https://doi.org/10.1016/j.ijscr.2015.02.013> Epub 2015 Feb 11.
- [16] Julio Fernandes Tomasi, Fabielle Menezes Tolfo, Lais Madeira Constantino, Felipe Antônio Cacciatori. Are eviscerations preventable? *Rev Col Bras Cir*. 2025 Feb 13; 52: e20253814.
<https://doi.org/10.1590/0100-6991e-20253814-en>
- [17] Victoria K Shanmugam, Stephen Fernandez, Karen Kim Evans, Sean McNish, Anirban Banerjee, Kara Couch, Mihrie Mete, Nawar Shara. Postoperative wound dehiscence: predictors and associations. *Wound Repair Regen*. 2015; 23(2): 184-190.
<https://doi.org/10.1111/wrr.12268>
- [18] Seyffert J, Harding T, Sanghvi A, Bibliowicz N, Yungmann M, Camner S, et al. Surgical wound dehiscence following cutaneous excisions: A retrospective study and review of the literature. *J Dermatol Dermatol Surg* 2020; 24: 93-8.
- [19] Florina Popa, Oana Rosca, Alexandru Georgescu, Claudio Cannistra. Reconstruction of the Abdominal Wall in Anatomical Plans. Pre- and Postoperative Keys in Repairing "Cold" Incisional Hernias. *Clujul Med*. 2016; 89(1): 117-21.
<https://doi.org/10.15386/cjmed-572>
- [20] Sunil V Patel, David D Paskar, Richard L Nelson, Satyanarayana S Vedula, Scott R Steele. Closure methods for laparotomy incisions for preventing incisional hernias and other wound complications. *Cochrane Database Syst Rev*. 2017 Nov 3; 2017(11): CD005661.
<https://doi.org/10.1002/14651858.CD005661.pub2>
- [21] José Ignacio Rodríguez-Hermosa, Antoni Codina-Cazador, Bartomeo Ruiz, Josep Roig, Jordi Gironès, Marcel Pujadas, Josep Pont, Xavier Aldeguer, Doroteo Acero. Risk factors for acute abdominal wall dehiscence after laparotomy in adults. *Cir Esp*. 2005 May; 77(5): 280-6.
[https://doi.org/10.1016/s0009-739x\(05\)70854-x](https://doi.org/10.1016/s0009-739x(05)70854-x)
- [22] G Güleyik. Factors affecting disruption of surgical abdominal incisions in early postoperative period. *Ulus Travma Derg*. 2001 Apr; 7(2): 96-9.
- [23] Mujahid Ahmad Mir, Farzana Manzoor, Balvinder Singh, Imtiyaz Ahmad Sofi, Abu Zaved Rameez, Sheikh Imran Farooq. 710063 Development of a Risk Model for Abdominal Wound Dehiscence. *Surgical Science*, 2016, 7, 466-474.
<http://www.scirp.org/journal/ss>
- [24] Berhanetsehay Teklewold Teklemariam, Chaltu Fikru Biyana, Sahilu Assegid Asfaw. Determinants of Postoperative Abdominal Wound Dehiscence among Patients Operated in a Tertiary Hospital. *Ethiop J Health Sci*. 2022 Jul; 32(4): 739-746. <https://doi.org/10.4314/ejhs.v32i4.10>