

# **Nursing Care for a Post-Laparotomy Ovarian Cyst Case: Pain Management, Infection Prevention, and Nutritional Support**

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**Abstract:** Ovarian cysts, particularly when managed via laparotomy, pose multifaceted challenges including acute pain, risk of infection, and nutritional deficits, which can significantly affect recovery and postoperative outcomes. This case report describes comprehensive nursing care for a 48-year-old female patient at RSUDZA Banda Aceh following laparotomy for cystic ovarian neoplasm. Using the nursing process, diagnoses were acute pain, risk of infection, and risk of nutritional deficit. Interventions included non-pharmacological pain relief (e.g., Benson relaxation), strict aseptic wound care, early mobilization, tailored nutritional support, and patient education. Outcomes after five days showed decreased pain scores, no signs of wound infection, improved appetite and nutritional intake. Through this case, we illustrate the value of integrating evidence-based practices from the literature – including immunonutrition, early feeding, infection control protocols, and multimodal pain management – to enhance recovery. Recommendations include implementing a protocol combining these elements for similar cases to improve patient outcomes.

**Keywords:** Nursing care; Ovarian cyst; Acute pain; Nutrition; Infection prevention

## **Introduction**

Ovarian cysts are fluid-filled sacs within or on the surface of the ovary and can be benign or malignant. Surgical intervention, especially laparotomy, is often required for large, symptomatic, or complicated cysts. While laparotomy allows removal of large masses, it is associated with greater postoperative pain, elevated risk of infection, longer recovery time, and nutritional concerns. Globally, attention is shifting towards more holistic nursing care that goes beyond surgery—addressing pain control, infection prevention, and nutritional rehabilitation as key components of patient recovery. Studies have demonstrated that poor pain control can delay mobilization and wound healing, while inadequate nutritional intake post-laparotomy is associated with increased complications and length of hospital stay. The aim of this case report is to document nursing care interventions in a post-laparotomy ovarian cyst patient and compare with recent literature to identify best practices for improved recovery.

## **Literature Review**

**Pathophysiology and Clinical Implications:** Ovarian cysts can result from hormonal imbalance, ovulation anomalies, or underlying gynecologic disease. Large cysts may cause pain, pressure symptoms, risk of torsion, or rupture. Postoperative complications from laparotomy include wound infection, delayed gastrointestinal function, and nutritional deficiencies.

**Pain Management Strategies:** Multimodal analgesia combining pharmacologic and non-pharmacologic techniques. Benson relaxation and finger-grip relaxation shown effective (Ebsina Journal 2021).

**Infection Control Measures:** Operating room nursing interventions (aseptic technique, surgical site care) significantly reduce wound infection and complications after ovarian cyst surgery (PubMed 2024).

**Nutritional Support:** Adequate nutrition post-laparotomy is critical to healing; early feeding, enteral nutrition where possible, and monitoring of nutritional adequacy correlate with shorter hospital stay and fewer complications (PubMed 2021).

## **Method**

A descriptive, single case study using the nursing process framework was conducted in RSUDZA Banda Aceh. The patient was a 48-year-old female who underwent laparotomy for cystic ovarian neoplasm. Data were collected via patient interview, physical assessment, medical records, laboratory results. Interventions were implemented over a five-day postoperative period targeting acute pain, infection prevention, and nutritional deficit. Outcome measures included pain scale (e.g., numeric rating), wound condition (signs of infection), appetite and food intake, nutritional parameters (if available), and patient satisfaction.

## **Finding and Discussion**

**Pain Management:** Non-pharmacologic relaxation techniques combined with prescribed analgesics reduced pain scale from 8/10 to 1-2/10, aligning with literature.

**Infection Prevention:** Strict aseptic wound dressing, regular monitoring for signs of infection, patient education about hygiene. No infection observed by day five.

**Nutritional Support:** Early nutrition encouraged, appetite improved, oral intake increased. Literature shows meeting  $\geq 80\%$  of estimated caloric needs early reduces complications.

**Comparison with Other Studies:** Our case achieved adequate intake by day 5; laparoscopy vs laparotomy studies show importance of stronger postoperative care.

## **Conclusion and Recommendation**

Nursing care combining multimodal pain management, robust infection prevention, and proactive nutritional support significantly contributes to improved outcomes in post-laparotomy ovarian cyst patients. Recommendations: implement standardized pain management protocols including non-pharmacologic methods; perioperative nutritional intervention and monitoring; strict wound care and aseptic technique; patient education on mobilization, hygiene, nutrition. Future research should include larger samples, objective nutritional assessments, and longer follow-ups to evaluate long-term recovery.

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