Acta Scientific Women's Health (ISSN: 2582-3205)

Volume 6 Issue 5 May 2024

Case Report

Nursing Care in Patients with Ectopic Pregnancy Who Under Go-On Fast Tract Surgery: 2 Case Study

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Received: March 18, 2024

Published: March 28, 2024

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Abstract

Background: Ectopic pregnancy was a high-risk of gynecological emergency and complicated to manage. If the fallopian tube ruptures, it will cause of shock from intra-abdominal hemorrhage, which can be life-threatened. Therefore, there must be closed and continuous care and observation by nurses in caring when there discharge according to nursing standards.

Objective: Comparative 2 case studies in nursing care for patients with ectopic pregnancies undergoing surgery in fast-track surgery according to nursing standards.

Methodology: This comparative case studied use case studied descriptive research methodology design to compare nursing process in fast tract surgery in ectopic pregnancy. Select case with purposive sampling who diagnosis with ectopic pregnancy and there visit in Kalasin hospital from April to July 2022 whole 2 case. Data collective with personal data collective form, observative form, in-dept interview form, Gordon's functional health patterns, medical record, a satisfaction questionnaire. Data analysis with descriptive, nursing diagnosis, nursing care and nursing outcome from first visit until discharge.

Result: Case studied 1 was a married Thai woman 26 years old G2P0A1L0 last 3 years visit at Kalasin hospital present with abdominal pain Rt. lower quadrant investigate by ultrasound found ectopic pregnancy with rupture Rt. fallopian tube with shock go on fast tract surgery post operative good recovery and good conscious no complication length of stay 3 days. In case studied 2 was Thai women 25 years old G3P2A0L2 post sterilize visit at Kalasin hospital present with lower abdominal pain left side with vaginal bleeding, urine pregnancy test was positive, ultrasound found ectopic pregnancy in left fallopian tube no rupture go on fast tract surgery on time post operative in fast tract surgery good conscious and recovery no complication, length of stay 3 days In summary from table 3 found that health problem all of 2 cases was similar 1) Hypovolemic shock related to abdominal bleeding evidenced by ultrasound found ectopic pregnancy with rupture Rt. fallopian tube with blood loss 2) Acute pain related to tissue injury from rupture ectopic pregnancy evidenced by grimacing, expression of pain and abdominal guarding. 3. Uncomfortable due to abdominal distension secondary to the operation received. 4. Risk to complication after surgery evidence by post operative salpingectomy and 5. Risk for Infection related to tissue injury from surgery. In addiction a differentiate nursing diagnosis between case study 1 and case study 2 was 1. Anxiety related to stress as evidenced by increased tension, apprehension, and expression of concern regarding upcoming surgery 2. Grieving and loss due to loss of pregnancy evidenced by ectopic pregnancy and rupture fallopian tube that problem was found in case study 1 but case study 2 was none.

Conclusion: The nursing outcome found that nursing care had been closely provided via expert nurses based on patient's conditions to correct the shock. Finally, patient was safe from shock and other mentioned health problems. In addiction a differentiate of nursing diagnosis between 1st and 2nd case were anxiety case studied 1 was done related illness and operative but case studied 2 none because her experience in two time of caesarians section and own sterilized. Nursing care had been closely provided via expert nurses based on patient's conditions to correct the shock. Finally, patient was safe from shock and other mentioned health problems.

Suggestion: In summary of this studied more over the result can use for data base for research instance research and development, quasi-experimental-research or can use result for developed for clinical nursing practice guideline.

Keywords: Case Study; Ectopic Pregnancy; Fast Tract Surgery; Nursing Care

Introduction/Background

Ectopic pregnancy was any pregnancy implanted outside the uterine cavity In the UK the incidence is approximately 11/1,000 pregnancies, with approximately 11,000 ectopic pregnancies diagnosed each year [1]. Ectopic pregnancy was a high-risk of gynecological emergency and complicated to manage. If the fallopian tube ruptures, it will cause of shock from intra-abdominal hemorrhage, which can be life-threatened. Therefore, there must be closed and continuous care and observation by nurses in caring when there discharge according to nursing standards [2].

In Thailand, an incidence of 1-2 percent of pregnancies is found, with 95-98 percent occurring in the fallopian tubes, which are mostly located in the fallopian tubes. The ampulla is 12-13% located in the isthmic and fimbria, while the interstitial is 2-4%. In addition, it is located in the ovaries, cervix or in the abdominal cavity. (less than 1 percent) [3]. Ectopic pregnancy is considered a gynecological emergency. In general, treatment is divided into Supportive follow-up treatment with drugs and surgery, although nowadays there is a trend of increasing the use of drugs to treat ectopic pregnancy. And new drugs have been developed and used to treat ectopic pregnancies, but surgical treatment is still a popular method. Got good results There is a low recurrence rate. and has high safety [4].

In patients (Pt.) with ectopic pregnancy who require surgical treatment, close supervision is required from the beginning. And continuous monitoring because ectopic pregnancy is considered a gynecological emergency. which is extremely difficult and complicated to care for especially patients who require urgent surgery under the Fast Tract Ectopic Pregnancy surgery system, which is still new in Thailand. Public health personnel or the team providing care therefore need to have very high knowledge, abilities, skills, and expertise. In particular, nurses, who are the closest caregivers to patients, need to develop necessary competencies in all four areas. Therefore, educators have a need to study the roles of advanced nurses and appropriate nursing care in patient care. Ectopic pregnancy that was surgically treated in the fast-track system This will lead to the determination of policies, guidelines, or models of care at both the hospital level and the national level [5].

Ultrasound is the gold standard for diagnosis of ectopic pregnancy with a specificity and sensitivity previously described as 94% and 87% respectively. The abdominal-pelvic nuclear magnetic resonance imaging (MRI) may help guide the involvement of adjacent organs [5].

Fast Track Surgery: FTS or Enhanced Recovery After Surgery: ERAS explain by Kehlet, H. (1990) main point of program was early rehabilitation of patients under collaboration of multidisciplinary with many model or multiple or multiple of techniques. Committed for decrease of abnormality and mobility after surgery. However, the treatment in ectopic pregnancy brought up to Fast Track Surgery: FTS or Enhanced Recovery After Surgery: ERAS for utilization get to safety in patients [6].

Objective

Comparative 2 case studied in nursing care for patients with ectopic pregnancy undergoing surgery in fast-track surgery according to nursing standards.

Purpose

- Get to Fast tract surgery in ectopic pregnancy nursing care guideline in organization
- Explain and utilizations in organization and outside to international

Importance of study

Ectopic pregnancy was a crisis in gynecology, many complicated of care in individual and family care all of mental, emotional and social especially who undergo on surgery there want to closeup of care when first visit until discharge and continue to home care. Management depends on maternal symptoms and fetal status. In many cases, emergency laparotomy is the chosen technique, as the patient may present acute, severe intra-abdominal hemorrhage due to placental separation of the implantation bed. Due to the extreme risk of complications and associated maternal mortality of up to 5 per 1000 cases, some experts recommend surgical intervention as soon as the diagnosis has been made. Cases of conservative management are usually isolated and fetal mortality can reach more than 50%. Abdominal pregnancy has also been associated with congenital malformations in about 20% of neonates [5].

Material and Methods

This comparative case studies use for descriptive research methodology design to compare nursing process in fast tract surgery in ectopic pregnancy. Select case with purposive sampling there arrive to visit in Kalasin hospital from April to July 2022 get to 2 sample sites. Data collective with personal data collective form, observative form, in-dept interview form, Gordon's functional health patterns, medical record, a satisfaction questionnaire. Data analysis with descriptive, nursing diagnosis, nursing care and outcome. The comparison of nursing diagnosis by evaluate health status using patient assessment concepts. According to Gordon's 11 health pattern to find problems and health needs bring to analyze problems and respond to needs in nursing practice to have quality that covers promotion, prevention, treatment, rehabilitation of health and use nursing process as key success for nursing practice. Since for the time first visit until discharge during the study period significant nursing problem where into 3 phases: preoperative postoperative and discharge planning.

Personal history

Case study 1 Thai female 26 years old 1st visit present with chief complaint abdominal pain 1 week. Pass History of Illness (PHI) 1

week Pre Time-Admit (PTA) abdominal pain at middle line paroxysm. The last of menstruation was 2 weeks ago abnormally present with 2 days and present of blood clot but a normally was 5 days no blood clot glavida 3 Para 2 abortion 1 (ectopic pregnancy) Labor 2 last 7 years. Refer to Kalasin hospital on 9 April 2022 1.36 p.m. At ER good conscious mild pale conjunctival, right lower quadrant and left lower quadrant tenderness, no guading v/s was show BP 114/80 mmHg. PR 68 bpm. RR 20 bpm. BT 37.0 C. UPT positive beta HCG result 53,621 Hematocrit (Hct.) 26.1% U/S was seen empty uterus, rupture left tubal pregnancy free fluid estimate 500 ml. Shock was identified get to manage shock sign then set operation for exploratory laparotomy with left salpingectomy under general anesthesia. In operation room was found left tubal pregnancy with rupture site at fimbria estimate of hemoperitoneum about 300 ml., normal looked of right ovary and fallopian tube, normal looked of left ovary. v/s BP 120/80 mmHg., PR 90 bpm., RR 18 bpm. (on ventilator) and BT 37.0 C. Post operation good conscious no bleeding per surgical wound no complications and sign of shock not found transfer to Gynecology ward for observe. At ward Pt. good conscious V/S was show BT 36.6-37.7 C., PR. 80-92 bpm. RR 20 bpm., BP 104/70-126/72 mmHg., no constipation plan for discharge on 12 April 2022 rang of stay 4 day and appointment 4 weeks at OPD Gynecology.

Case study 2 Thai female 22 years old 1st visit present with abdominal pain 1 day. PHI 1 day PTA abdominal pain generalize with vaginal bleeding no nausea and vomiting not diarrhea normal urine. Gravida 3 Para 1 Abort 1 (ectopic pregnancy) Labor 1 last 2 years. Refer to emergency room (ER) Kalasin hospital on 17 April 2022 12.02 p.m. At ER Pt. alert, abdominal pain with guading generalized tenderness observe vital sign(v/s) was show blood pressure 120/68 mmHg, pulse 86 beat per minute(bpm), respiratory rate (RR) 20 bpm and body temperature (BT) was 36.9, urine preg test (UPT) was positive, urine amphetamine was positive, Hct. was 28.4 % ultrasound was found rupture right tubal pregnancy free fluid in abdomen was positive estimate 500 ml. Shock was identified get to manage shock and set operation exploratory laparotomy with right salpingectomy with removal tubal pregnancy stat. In operation room finding uterus mild enlarged, adhesion between bladder and anterior lower part of uterus, normal both ovaries status post left salpingectomy and right tubal pregnancy estimate size 2x2 cm. with rupture hemoperitoneum (blood clot) estimate 500 ml., in operation vital sign was show BT 36.6 PR. 98-100 bpm. RR 20-22 bpm. (on ventilator) BP. 100/60 mmHg. Post operation good conscious no bleeding per surgical wound no complications sign of shock not found transfer to Gynecology ward for observe. At ward Pt. good conscious V/S BT 36.6-37.3 C PR. 90-102 bpm. RR 18-20 bpm BP100/58-111/62 mmHg., no constipation plan for discharge on 19 April 2022 rang of stay 3 day and follow up 4 weeks at OPD Gynecology.

In other health status was comparative via Gordon's functional health patterns between case study 1 and case study 2 was show on the table 1.

Health pattern	Case study 1	Case study 2
Health Perception Health Management	Feeling severe abdominal pain tired, vertigo dizziness, pallor low self care not aware the problem was happening occurs during pregnancy and want to continue pregnancy	Good perceive in health care, get to health providers when illness knowing that it will be an ectopic pregnancy and has a worried when she knows must surgery
Nutritional-Metabolic	Get diet on time, like to clean diet	Get diet not on time, like spicy,
Elimination	Normal excretion, no history of function	Normal excretion, no history of function
Activity-Exercise	Like to exercise every day, well ability to work	Self-care, so long time to exercise 1-2 time per month, well ability to work
Cognitive-Perceptual	Feeling confused and tire and vary vertigo	Good sensory and perceptual, decision making by herself
Sleep-Rest	Sleep on time every day get from 10.00 pm – 06.00 am, average to sleep for 8 hrs., no slumberous on day early wake up.	Not sleep on time in every day, short time to sleep, not sleepy and late wake up in some day
Self-perception/Self concept	Serious about this illness and knowing about ectopic pregnancy now.	Know about this pregnancy and know that was ectopic pregnancy after health provider describe
Role-Relationship	Good relationship in family	Good relationship in family
Sexuality-Reproductive	Normal	Normal
Coping/Stress Tolerance	Serious about abortion because she and her husband want to had child	Serious about surgery but can accept and adaptation by herself
Value-Belief	The most valuable is parents and husband induce the mind	Believe this illness it impossible. Believe about sacred things, about sin and merit

Table 1: Comparative Gordon's functional health patterns between case study 1 and case study 2.

The comparative in case study all with normal standard of ectopic pregnancy sign and management was show on table 2.

Result

Case studied 1 was a married Thai woman 26 years old G2P0A1L0 last 3 years visit at Kalasin hospital present with abdominal pain Rt. lower quadrant investigate by ultrasound found ectopic pregnancy with rupture Rt. fallopian tube with shock go on fast tract surgery. In case studied 2 was Thai women 25 years old G3P2A0L2 post sterilize visit at Kalasin hospital present with lower abdominal pain left side with vaginal bleeding, urine pregnancy test was positive, ultrasound found ectopic pregnancy in left fallopian tube no rupture go on fast tract surgery on time. nursing diagnosis obtained from evaluating the patients about the disease via evaluating the physical, spiritual and social aspects, it was found that there were problems that needed to be taken care, so a nursing care plan for both patients was developed and comparative as follows on table 3.

Comparative points	Case study 1	Case study 2
Cause or factor of ectopic pregnancy is caused and Risk factors are as follows: Formation of adhesion around the fallopian tubes and narrowing caused by inflammation and infection in Pelvic floor, postpartum and post-abortion infections. Endometriosis Appendicitis increases at least 3 times the risk	In operation was finded left tubal pregnancy with rupture left site fimbria hemoperitoneum blood clot estimate 300 ml and normal look of right OV. and FT. normal looked of left OV	In operation was finded uterus mild enlarge, adhesion between bladder and anterior lower part of uterus. Normal of both OV. Right tubal preg with rupture hemoperitoneum blood clot estimate 500 ml.
Symptoms/Signs The most common symptoms are tenderness in the lower abdomen (percentage 80-95) has rebound) shape pain or colicky severe pain and acute, may be pain on one side or all over, this symptom precedes to rupture of the egg inside. Some case who had with intra-abdominal bleeding may be refer pain to the shoulder or area in case .was rupture, it will rebound tenderness Amenorrhea, nausea and vomiting Menstrual spotting Shock was found estimate 33 % most common after rupture fallopian tube may be hypovolemic shock have an effect to vital sing unstable, blood pressure drop, limited of pulse pressure, tachycardia if who have abdominal bleeding may be found orthostatic hypotension, distend Cul-du-sac and tenderness	7 day ago present with abdominal pain mild tenderness at left lower quadrant, right lower quadrant, suprapublic, no guarding may be rebound tenderness G2P1A1(ectopic pregnancy) L1 last 1year and 3 month. LMP not sure LMP uncertain date estimate time 2 weeks PTA. Good conscious look sic mild pale conjunctival, normal S1S2 no murmur, equal breast sound abdominal tenderness at right lower quadrant, suprapubic, Left lower quadrant no guarding may be rebound. Vital sing BP 114/80 mmHg PR 68 bpm RR 20 bpm. UPT positive Hct.28%.	1 day ago present with abdominal pain found distention, generalized tenderness and guarding. G2P1A1(ectopic pregnancy) L1 last 7 year and LMP 1 march 2022 for 3 day LMP 1 march 2022 for 3 day Alert Glassgow coma score(GS) E4V5M6 not pale no jaundice normal S1S2 no murmur normal breast sound abdominal guarding generalize tender vital sign stable BP 120/68 mmHg PR 86 bpm RR 18 bpm Hct 28.4% UPT positive and Urine amphetamine was positive vaginal bleeding not nausea and vomited
Diagnosis Sign and symptom Treatment Observation about Level of serum ß-hCG decrease No abnormality bleeding per vagina Size of ectopic no over 1 cm. None sign of Tubal Rupture Medical injection with methotrexate destroy ectopic mass until mass gradually disappear and show most of tubal normaly and good impact in gestational age less than 6 weeks Surgery with proedure Salpingostomy Salpingotomy Salpingectomy	Rupture ectopic pregnancy with anemia of acute blood loss Abdominal pain 1 week 1 week Pre Time-Admit (PTA) abdominal pain some time not pain LMP 2 weeks ago (Uncertain date) menorrhea was 2 day standard was 5 day and sometime blood clot abnormaly UPT positive beta HCG result 53,621 Hematocrit (Hct.) 26.1% U/S was seen empty uterus, rupture left tubal pregnancy free fluid estimate 500 ml. Shock was identified get to manage shock sign then set operation for exploratory laparotomy with left salpingectomy under general anesthesia. In operation room was found left tubal pregnancy with rupture site at fimbria estimate of hemoperitoneum about 300 ml., normal looked of right ovary and fallopian tube, normal looked of left ovary	Rupture right tubal pregnancy with anemia of acute blood loss with amphetamine use Abdominal pain 1 day PTA 1 day PTA abdominal pain generalize tenderness with UPT was positive, urine amphetamine was positive, Hct. was 28.4 % ultrasound was found rupture right tubal pregnancy free fluid in abdomen was positive estimate 500 ml. Shock was identified get to manage shock and set operation exploratory laparotomy with right salpingectomy with removal tubal pregnancy stat. In operation room finding uterus mild enlarged, adhesion between bladder and anterior lower part of uterus, normal both ovaries status post left salpingectomy and right tubal pregnancy estimate size 2x2 cm. with rupture hemoperitoneum (blood clot) estimate 500 ml.

Table 2: Data comparative and analysis in ectopic pregnancy of 2 case study.

Nursing Diagnosis	Nursing Intervention
1. Hypovolemic shock related to abdominal bleeding evidenced by ultrasound found ectopic pregnancy with rupture Rt. fallopian tube with blood loss *Found in case study 1,2	1. Assessment sign of shock, level of pain score, anemia and oxygen saturation (O_2sat.) keep > 95% 2. Nothing per oral (NPO) 3. Take intra venous fluid according to the treatment plan. 4. Oxygen mask with bag 6 liters per minute please take 5. Serum testing as blood group, complete blood count(CBC), electrolyte, hematocrit (Hct.) and hemoglobin (Hb.) 6. Retained foley catheter for observe urine's color and urine's volume keep >30 ml/hour
2. Acute pain related to tissue injury from rupture ectopic pregnancy evidenced by grimacing, expression of pain and abdominal guarding. *Found in case study 1,2 3. Anxiety related to stress as evidenced by increased tension, apprehension, and expression of concern regarding upcoming surgery Found in case study 1 4. Uncomfortable due to abdominal distension secondary to the operation received. Found in case study 1,2	1. Level of pain score assessment. 2. Take to analgesic according treatment plan 3. Semi-fowler's position and bed rest 4. Observe v/s every 4 hours. 5. Training to deep breathing exercise 6. Setting the environment to relaxation. 1. Assess perceptions about disease and its causes 2. Relationship's procreate and listen to felling of client 3. Empowerment and encourage 4. Pre operation information and consent in form 1. Assess level of pain score in abdomen and after surgery 2. Take to painkiller according treatment plan 3. Set position due to comfortable 4. Set environment for relaxation
5 Grieving and loss due to loss of pregnancy evidenced by ectopic pregnancy and rupture fallopian tube Found in case study 1 6. Risk to complication after surgery evidence by post operative salpingectomy Found in case study 1,2	1. Introduce yourself and relationships procreate, service mind and touch for trust and confident in order to achieve cooperation 2. Permit to feeling and ask about disease 3. Explain the pathology of ectopic pregnancy. 4. Encourage family members get caring and empower 1. Providing Preoperative Instructions 2. Reducing Fear and Anxiety 3. Promoting Safety and Preventing Injury 4. Promoting Infection Control and Preventing Infections 5. Normalizing Body Temperature 6. Promoting Effective Breathing Pattern 7. Providing Care Post Anesthesia 8. Managing Pain Relief 9. Improving Circulation 10. Maintaining Skin Integrity 11. Initiating Postoperative Patient Education and Health Teachings 12. Administer Medications and Provide Pharmacologic Support.
7. Risk for Infection related to tissue injury from surgery Found in case study 1,2	1. Assess for the infection sign and causes of infection 2. Monitor and report any signs and symptoms of infection e.g redness, swelling, increased pain, a purulent discharge from surgical wound, elevated temperature, monitor white blood cell (WBC) count. 3. Investigate the use of medications or treatment modalities that may cause immunosuppression. 4. Observe and report if client has a low-grade fever or new onset of confusion. 5. Determine factors that can reduce the effectiveness of hand hygiene. 6. Wash hands or perform hand hygiene before having contact with the client. Also, impart these duties to the client and their significant others and know the instances when to perform hand hygiene 7. Change dressing and bandages that are wet. 8. Take antibiotic drug according the treatment plan

Table 3: Comparative nursing diagnosis, data support and nursing intervention of 2 case study.

In summary from table 3 found that health problem all of 2 cases was similar 1) Hypovolemic shock related to abdominal bleeding evidenced by ultrasound found ectopic pregnancy with rupture Rt. fallopian tube with blood loss 2) Acute pain related to tissue injury from rupture ectopic pregnancy evidenced by grimacing, expression of pain and abdominal guarding. 3. Uncomfortable due to abdominal distension secondary to the operation received. 4. Risk to complication after surgery evidence by post operative salpingectomy and 5. Risk for Infection related to tissue injury from surgery In addiction a differentiate nursing diagnosis between case study 1 and case study 2 was 1. Anxiety related to stress as evidenced by increased tension, apprehension, and expression of concern regarding upcoming surgery 2. Grieving and loss due to loss of pregnancy evidenced by ectopic pregnancy and rupture fallopian tube that problem was found in case study 1 but case study 2 was none.

The nursing outcome found that nursing care had been closely provided via expert nurses based on patient's conditions to correct the shock. Finally, patient was safe from shock and other mentioned health problems. In addiction a differentiate of nursing diagnosis between 1st and 2nd case were anxiety case studied 1 was done related illness and operative but case studied 2 none because her experience in two time of caesarians section and own sterilized. Nursing care had been closely provided via expert nurses based on patient's conditions to correct the shock. Finally, patient was safe from shock and other mentioned health problems.

Conclusion

Case study 1

A married Thai woman 26 years old with a report of absence of 2-month period of menstrual visit at Kalasin hospital with lower abdominal pain, faint, good conscious. At Kalasin hospital, shock was worsening progressive treatment was on 0.9% Normal Saline Solution intravenous drip rate 120 ml/hrs. after that a patient's clinical improved enough to tolerate the fast tract surgery for right partial salpingectomy was performed and found hemoperitoneal 1,000 ml. with ultimately, a patient's conditions were dramatically recovered. In summary, the patient's health problems was 1st stage pre operated 1) actual hypovolemic shock (deficient fluid volume) due to massive blood loss in the abdomen secondary to ectopic pregnancy, 2) actual ineffective tissue perfusion related to progression of shock with decreased red blood cell to transport oxygen to tissues, 3) risk for fluid and electrolyte imbalance, 4) actual anxiety related to feelings that illness was worsening and is potentially life threatening (patient and significant others), 5) actual pain secondary to tissue injury, 6) actual anemia due to massive blood loss, and 7) actual alter in comfort due to abdominal distension secondary to the operation received. Nursing care had been closely provided based on patient's conditions to correct the shock. Finally, Patient was safe from shock and those mentioned health problems.

Restrictions

- It have to short time for study due to limited of case in timing
- Because fast tract surgery it's new innovation for surgery so it not clears for some process of system.

Suggestions

- **In Nursing:** Just to base on of development of clinical nursing practice guideline in ectopic pregnancy who undergo on fast tract surgery.
- **To developmental:** Result expands to other complex disease.
- **To research study:** Result expands for any research design.
- **For Utilization:** Result expands for setting policy in service in many divisions all of in Thailand and global.

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