មជ្ឈមណ្ឌលជាតិគាំពារមាតា និងទារក
National Maternal and Child Health Center

ទិវាសល្យសាស្ត្រ សម្ភព និងរោគស្ត្រី លើកទី៣

ប្រធានបទ៖ «ពង្រឹង និងបង្កើនសេវាព្យាបាល ថែទាំ សង្គ្រោះ ប្រកបដោយគុណភាព »

Operative Management of Acute Cholecystitis in Pregnancy: Case Report at National Maternal and Child Health Center in 2024

ថ្ងៃទី៤-៥ ខែកញ្ញា ឆ្នាំ២០២៥
សណ្ឋាគារភ្នំពេញ

Presented by **Dr. Soeur Chansokha**

Outline

I. Introduction

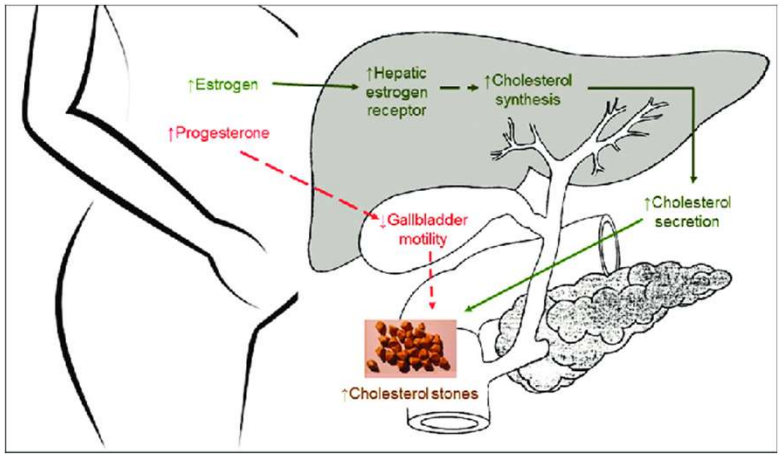
II. Case Report

III. Discussion

IV. Conclusion

I. Introduction (1)

- The incidence of biliary tract disease during pregnancy ranges from 0.05% to 0.3%.[1]
- During pregnancy, the surge in estrogen and progesterone levels causes biliary stasis, which, in turn, increases the risk of gallstone formation.[2,3]
- Acute cholecystitis is the second most common non-obstetric surgical condition after appendicitis in pregnant patients.[4]



I. Introduction (2)

- Gall bladder perforation has been reported to occur in 3 to 10% cases of acute cholecystitis in adults; however, it has rarely been reported in pregnancy.
- Since this condition is unusual during pregnancy, accurate diagnosis and treatment may be delayed resulting in perinatal morbidity.[5]

II. Case Report (1)

- A 26-year-old from Kandal Province, gravida 1, 25 weeks pregnancy, presented to the emergency department at **NMCHC** on **25/12/2024** at **10:15 PM** with **severe right upper quadrant pain**, **fever 39°C**, and **vomiting** for the **past 4 days**.
- Physical examination revealed **localized tenderness in the right upper quadrant** with a **positive Murphy's sign**.
- Vital signs: pulse was 110/minute, blood pressure was 90/60 mmHg and there was no pallor or icterus.

II. Case report (2)

Investigations:

- 25/12/2024: Laboratory tests showed WBC: **20.3 x 10^9/L**, Neurophils:**17.7 x 10^9/L,** CRP: **133 mg/L** , ALT: **41 U/L**, AST: 39 U/L, Procalcitonin: **0.971 ng/ml** and normal bilirubin levels.
- Abdominal ultrasound demonstrated gallbladder wall thickening (5 mm), pericholecystic fluid, and biliary sludge.
- Fetal assessment via ultrasound showed normal growth and activity.
- A clinical diagnosis of acute cholecystitis during pregnancy.

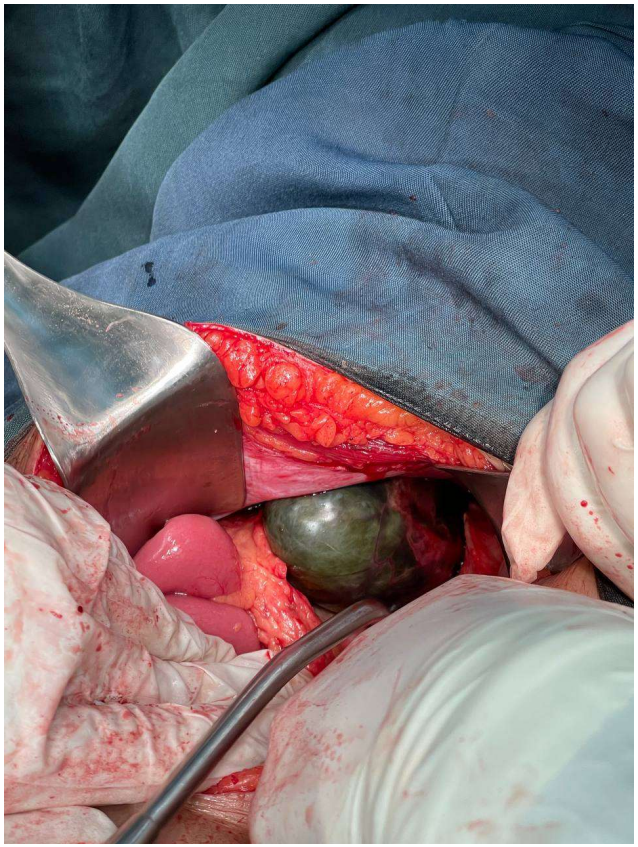
II. Case report (3)

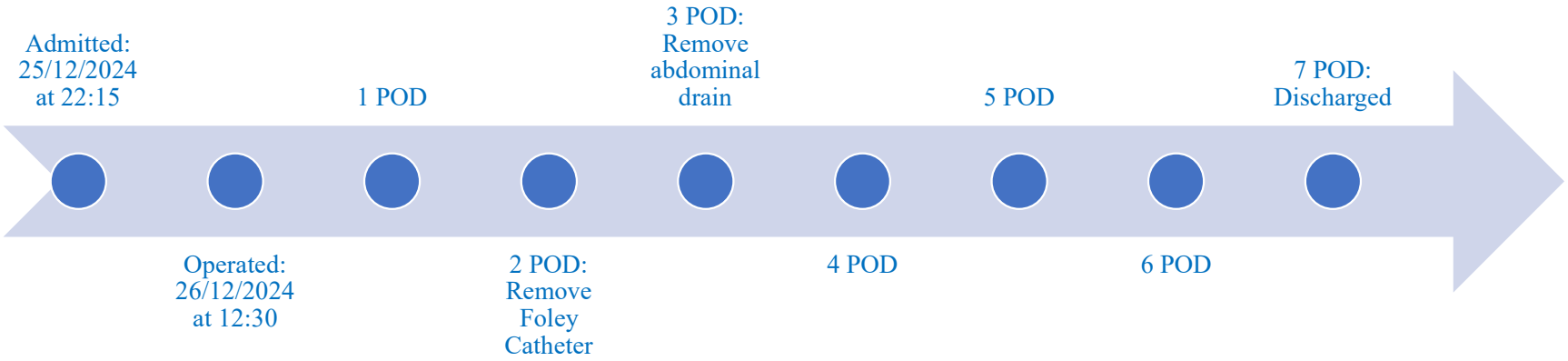
Management:

- The patient was admitted for conservative management, including intravenous fluids, bowel rest, and broad-spectrum antibiotics (ceftriaxone and metronidazole).
- Pain was managed with paracetamol and antispasmodic.
- Close fetal monitoring was performed.

II. Case report (4)

- Despite initial conservative treatment, the patient experienced worsening symptoms, prompting a multidisciplinary discussion.
- Given the risk of maternal and fetal complications, **open cholecystectomy** was performed on **26/12/2024** at **12:30** under **general anesthesia (IV)**.
- The procedure was successful with no intraoperative complications.




Admitted:
25/12/2024
at 22:15
Operated:
26/12/2024
at 12:30
1 POD
2 POD:
Remove
Foley
Catheter
3 POD:
Remove
abdominal
drain
4 POD
5 POD
6 POD
7 POD:
Discharged

Timeline

	Upon Admission	1 POD	2 POD	3 POD
Hbg/l	11.8	10.6		8.4
Leu x 10^9	20.3	20.6		7.4
CRP mg/dl	133			49.7
Amylase U/l	25			
Lipase U/l	17			
Procalcitonin	0.971			

Clinical laboratory

II. Case report (4)

- **Outcome and Follow-up:** Postoperatively, the patient had an uneventful recovery and was discharged on postoperative day 7.
- She continued regular antenatal visits.

- **OBSTETRIC ULTRASOUND REPORT on 02/02/2025**

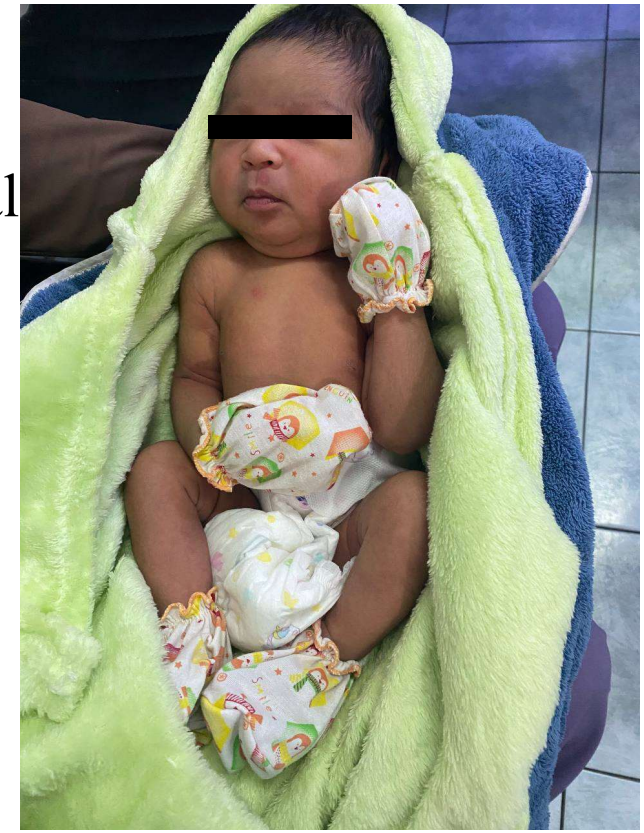
  Number of fetuses: One
  Presentation: Cephalic.
  Fetal activity: Positive fetal movements and cardiac activity.
  Fetal heart rate (FHR): 149 bpm.
  Fetal biometry:
    Biparietal diameter (BPD): 79 mm
    Femur length (FL): 56 mm
    Estimated fetal weight (EFW): 1,569 g
  Amniotic fluid: Normal volume.
  Placenta:
    Location: Anterior
    Appearance: Inhomogeneous, grade II maturity

- Conclusion:

  Gestational age: 30 weeks + 2 days by ultrasound.
  Estimated date of delivery (EDD) by ultrasound: 11 April 2025 (± 1 week).

II. Case report (5)

- On 11/04/2025, she delivered a healthy female newborn, weight: 3200g via spontaneous vaginal delivery at Health Center, Kandal Province.
- On 15/04/2025, both mother and baby were in good health.



III. Discussion (1)

- The signs and symptoms of acute cholecystitis on pregnant and non-pregnant patients are similar.
- However, it should be noted that complaints of nausea, vomiting, and abdominal pain are frequent in the healthy pregnant population.
- Murphy's symptom is observed with less frequency and is not as characteristic in pregnant patients (Augustin and Majerović 2007).
- The obstetric examination and the evaluation of the fetal vitality are required. The diagnostics and treatment of these patients should be done by a multidisciplinary team.

III. Discussion (2)

- Abdominal ultrasound has been shown to have high sensitivity for detecting acute cholecystitis – 85% in pregnant and 95% in non-pregnant patients (Gilo et al. 2009).
- There are two main treatment strategies – non-operative (NOM) and operative (OM) management the latter, which includes open (OC) and laparoscopic cholecystectomy (LC) (Ball et al 2019a).

III. Discussion (3)

- The American Society of Anesthesiology 2019 came up with a consensus that stated that there is no evidence that anesthesia has any effect on the fetus in utero (Nonobstetric Surgery During Pregnancy 2019).
- A group compared NOM, OC and LC. They concluded that NOM had a statistically significant higher rate of maternal and fetal complications compered to operative management. And LC had a statistically significant lower rate of surgical, maternal and fetal complication compared to OC (Kuy et al. 2009).

III. Conclusion

- Acute cholecystitis occurs rarely during pregnancy.
- Diagnosis is often easy considering the typical clinical presentation, but delay in the diagnosis can lead to serious complications for both mother and fetus.
- Therapeutic modalities are based on antibiotic therapy and urgent cholecystectomy.

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Thank you!