



The Bipolarity of Olanzapine - Case report of Olanzapine induced hepatitis in pregnancy.

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Introduction

- Pregnancy is a vulnerable state to develop mental health disorder.
- Similarly metabolic syndrome is on the rise among women of reproductive age group.
- Such women tend to develop hypertension and diabetes mellitus during pregnancy.
- Hypertensive disorder of pregnancy warrants early termination specially the ones complicated with HELLP syndrome.
- Olanzapine-induced liver injury is well-documented. Injuries appear to be dose-independent and do not have a consistent pathological pattern.

Objectives

- To have a clinical acumen of pregnancy complicated with mental health disorders and metabolic syndrome.
- To be aware about the drug history and its overall effect on pregnancy outcome.



Case Report

Patient History

- 29 year female, registered at 6 weeks.
- Known case of Bipolar affective disorder on Tab Carbamazepine and Tab Olanzapine.
- Psychiatrist opinion taken. Tab Carbamazepine withheld and patient continued on Tab Olanzapine 5mg HS.

A Case of ?HELLP Syndrome

- Blood sugar levels still derranged
 - Started on Injection Insulin, Regular and NPH
- Blood pressure 160/100 mmHG on two occasions
 - Started on tablet Labetalol 100mg BD
- Deranged CBC
 - Hb=9.8g%; Leucocytes 10088cumm; Platelets 110000cumm
- Deranged LFT
 - SGOT/SGPT= 108U/L & 112U/L
- Deranged lipid profile
- Raised LDH= 348U/L
- Serum Bile acids - 22mg/dl
- Patient developed itching all over her body

A Sign of relief!!

- History reviewed
- Literature review of Tab Olanzapine done
- Psychiatry opinion sorted and Tablet Olanzapine withheld.
- Repeat LFT after 72 hours of stopping the drug
 - SGOT/SGPT= 72 U/L and 51U/L

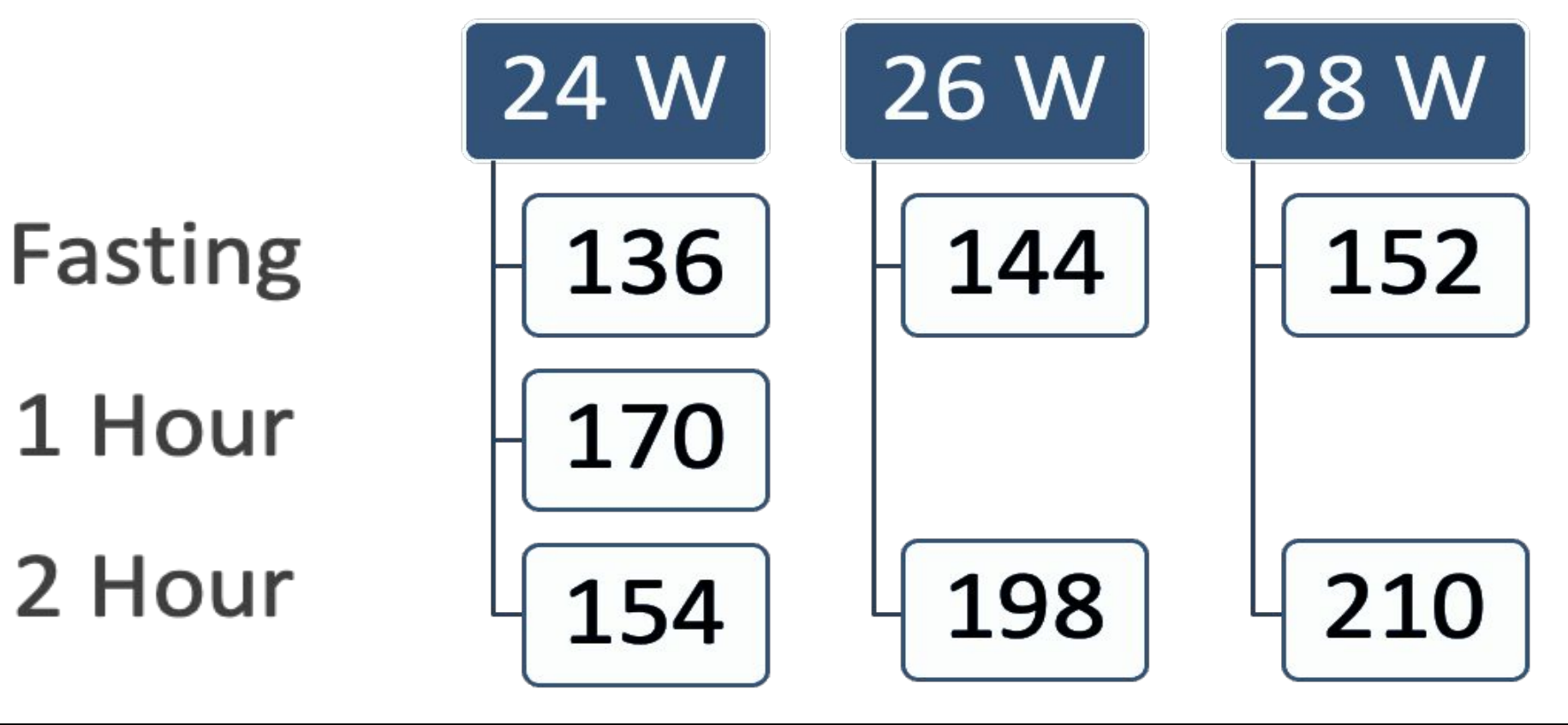


Chart 1. Trend of Blood Sugar Levels

Mother	Fetus
● Weight gain ● Gestational diabetes mellitus ● Raised triglycerides ● Drug Induced Liver Injury	● Extrapyramidal symptoms ● Preterm birth ● Short term developmental delay in cognitive development of infants

Table 1. Maternal and Fetal side effects of Olanzapine

	Day 1	Day 3	Day 5	Day 8
SGOT	108	278	488	72
SGPT	112	388	501	51

Table 2. Trend of SGOT/SGPT Levels

Discussion

Drug Induced Liver Injury

- Definition- AST/ALP levels 5 times the upper normal levels
- 2 types DILI - Direct and Indirect or idiosyncratic type.
- These effects seen after 12 days to 8 years after starting therapy
- No guidelines on monitoring of patient
- Reversal- on stopping the drug.

Author	Sample Size	Results
Auerbach, J.G., et al. [11]	29 (FGA exposure) 29 (Unexposed)	Mothers who take FGA during the third trimester have increased risk of having neonatal EPS
Boden, R., et al.	169 (olanzapine/clozapine) 338 (other antipsychotics) 357,696 (unexposed)	Increased risk of Gestational diabetes (OR 1.77; 95% CI 1.04-3.03)
Kulkarni, J., et al.	147 (mothers)	142 live births, 25 pre-term (18%), 56 (43%) special care nursery, 20 (15%) with withdrawal, 8 (6%) congenital abnormalities. Most pregnancies had healthy babies
Elliot, M., et al.	1576 (FGA exposure) 4115 (SGA exposure) 22,125 (Unexposed)	Second Generation Antipsychotics (SGA) increased risk of Maternal diabetes (OR 1.43; 95% CI 1.25-1.65), C-section (OR 1.35; 95% CI 1.18-1.53), large for gestational age (LGA) (OR 1.57; 95% CI 1.14-2.16), and preterm birth (OR 1.29; 95% CI 1.03-1.62)
Ilett, K.F., et al.	2 (mothers & infant)	No active metabolites of risperidone found in infant. Unlikely to be hazardous to breastfeeding individuals.
Auerbach, J.G., et al. [11]	29 (FGA exposure) 29 (Unexposed)	Mothers who take FGA during the third trimester have increased risk of having neonatal EPS

Conclusions

- Importance of being aware about the side effects of various drugs in pregnancy.
- Elicit drug history.
- Other drugs causing DILI
 - Paracetamol
 - Nevirapine
 - Propylthiouracil
 - Ayurvedic agents

References

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