



# PREVENTION OF CHEMOTHERAPY INDUCED NAUSEA AND VOMITING (CINV) FROM AC-CHEMOTHERAPY IN PREGNANT BREAST CANCER PATIENTS

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## Introduction

- Anthracycline-cyclophosphamide (AC) chemotherapy (CT) is used for the treatment of gestational breast cancer (BC) during the second and third trimester
- Since AC CT is highly emetogenic, total control of CINV in pregnancy is a clinical challenge
- Ondansetron, metoclopramide and methylprednisolone are considered safe while NK1 receptor antagonists (NK1 RAs) and olanzapine should be avoided

## Methods

- MASCC Antiemetic Tool (MAT) was used to evaluate nausea (0-10/10) and vomiting 0-120h after AC CT
- Patient's risk factors such as kinetosis, emesis during previous pregnancy, anxiety and alcohol abuse were recorded
- All patients received ondansetron 8mg iv and methylprednisolone 40mg iv on day 1 as the prevention of acute CINV
- No antiemetic prophylaxis was used in the delayed period
- Metoclopramide 10 mg was offered in case of a breakthrough emesis

## Conclusions

- CINV after AC CT was well controlled in pregnant BC patients despite the omission of NK1RAs and olanzapine
- The presence of nausea in the delayed period might be an issue
- Use of ondansetron and methylprednisolone showed no side effects

## Results

CINV from AC CT (doxorubicin 60mg/m<sup>2</sup>, cyclophosphamide 600mg/m<sup>2</sup>) was evaluated for 7 BC patients during 1<sup>st</sup>, for 5 in the 2<sup>nd</sup> and for 2 in the 3<sup>rd</sup> cycle of CT

Results are summarized in Table 1.

	1 <sup>st</sup> cycle	2 <sup>nd</sup> cycle	3 <sup>rd</sup> cycle
Patients	7	5	2
<b>Complete response</b>			
Acute (0-24h)	7/7	5/5	2/2
Delayed (24-120h)	7/7	5/5	2/2
Overall (0-120h)	7/7	5/5	2/2
<b>No nausea</b>			
Acute	7/7	4/5	2/2
Delayed	6/7	3/5	1/2
Overall	6/7	3/5	1/2

- Emesis during previous pregnancy was recorded in 3 out of 7 patients, 1 had kinetosis, 2 reported mild anxiety ( $\leq 4/10$ ) on Edmonton Symptom Assessment System and none abused alcohol
- Complete response (no emesis, no rescue) was reached in all patients in the acute, delayed and overall period
- Three patients had mild delayed nausea  $\leq 4/10$
- Post-partum follow-up showed no newborn congenital defects

## References

Loibl S, Azim HA Jr, Bachelot T et al. ESMO Expert Consensus Statements on the management of breast cancer during pregnancy (PrBC). *Ann Oncol.* 2023 Oct;34(10):849-866. doi: 10.1016/j.annonc.2023.08.001. Epub 2023 Aug 10. PMID: 37572987.