

DRUG INTERACTION IN BREAST CANCER TRIPLE NEGATIVE THERAPY: DOCETAXEL AND FLUVOXAMINE. A CASE REPORT.

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Background and importance

To alert clinicians to the potential problems of combining docetaxel (and taxanes in general) with fluvoxamine.

Aim and objectives

To report a live-conditioning interaction between docetaxel and fluvoxamine in a breast cancer patient.

Materials and Methods



- 60-year-old woman (60kg, 164cm).
- Triple negative breast ductal carcinoma (T1N0M0)



NEOADYUVANT CHEMOTHERAPY

- Epirubicin 95mg/m² + Cyclophosphamide 600mg/m² biweekly x 4 cycles.
- Carboplatin AUC5 + **Docetaxel** 75mg/m² + pegfilgrastim 6mg x4 cycles.
(FOLLOWED BY SURGICAL INTERVENTION).



Co-Medication:
NONE, except fluvoxamine.



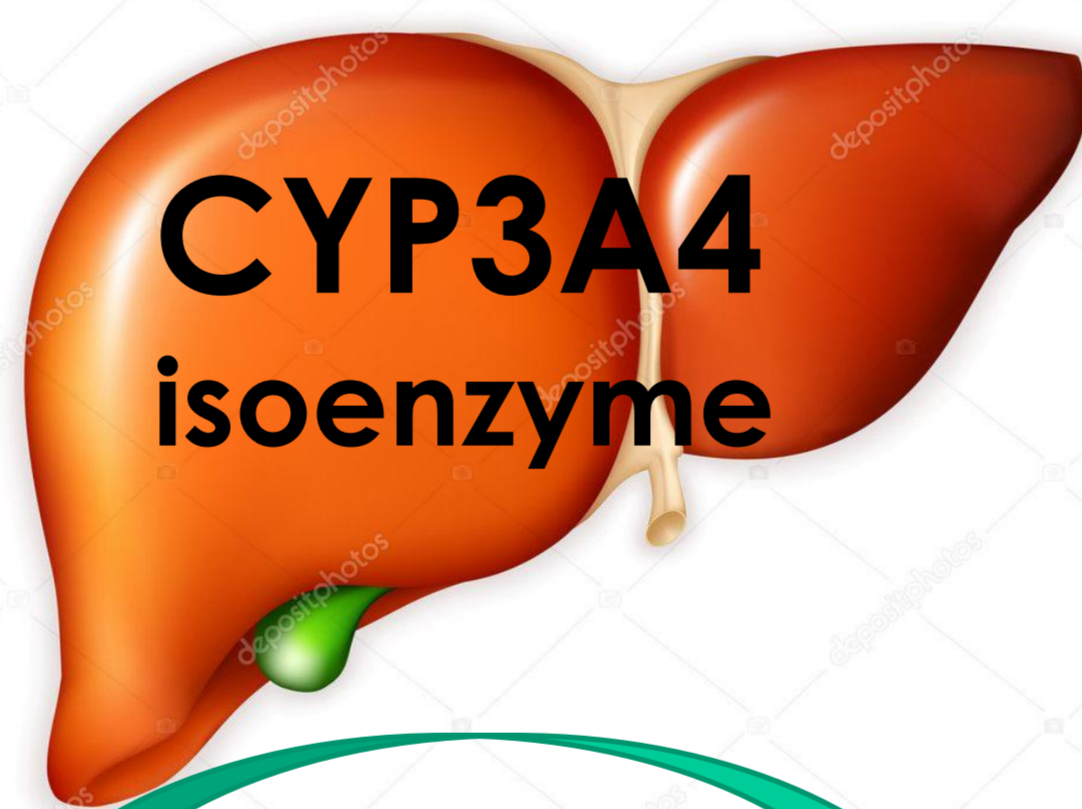
EMERGENCY ROOM:

Recurring syncopal episode and **neutropenia**.
It was admitted with septic shock.
Blood cultures: **Pseudomonas aeruginosa**. Meropenem was started.



Results

FLUVOXAMINE 



CYP3A4
isoenzyme

DOCETAXEL

METABOLITO
INACTIVO

1. It was identified that the patient started taking fluvoxamine as an antidepressant the same day she started the first cycle of Docetaxel-Carboplatin.
2. The interaction between docetaxel and fluvoxamine was assimilated, and fluvoxamine was discontinued and exchanged to mirtazapine,

**DRUG INTERACTION PROBABILITY
SCALE:
SCORE 4 (POSSIBLE)**



If PKPD analysis would have been performed, we could have proven that the AUC of docetaxel had reached toxic levels.



Conclusions and relevance

- It is mandatory to avoid utilizing SSRI that metabolized through CYP3A4 such as fluvoxamine, fluoxetine, paroxetine, sertraline, venlafaxine in the setting of docetaxel.
- Therefore, it would be best to recommend SSRIs such as mirtazapine, citalopram and escitalopram.