

Cystic Fibrosis Research News

Title:

No drug-drug interaction between tezacaftor-ivacaftor and clofazimine: a case report.

Lay Title:

Clofazimine has no influence on the blood concentrations of tezacaftor-ivacaftor in a patient with cystic fibrosis.

Authors:

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What was your research question?

What is the influence of clofazimine on the blood concentrations of tezacaftor-ivacaftor in a patient with Cystic Fibrosis?

Why is this important?

Some drugs can inhibit the metabolism of other drugs, and thereby increase their concentrations in the blood, which can cause more side effects. When tezacaftor-ivacaftor is taken together with drugs which inhibit their metabolism, the dose has to be reduced. Clofazimine was thought to be an inhibitor of this metabolism, but these studies which were not performed in humans. Since our patient had to use clofazimine for one year, we wanted to evaluate if this inhibiting effect would occur.

What did you do?

We took blood samples before start and during treatment with clofazimine. In the blood samples we measured tezacaftor-ivacaftor concentrations. We evaluated if the concentrations of tezacaftor-ivacaftor raised during treatment with clofazimine.



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What did you find?

Only small changes in tezacaftor-ivacaftor concentrations were found, and no changes in tezacaftor-ivacaftor dose was needed.

What does this mean and reasons for caution?

In our patient who was treated with clofazimine together with tezacaftor-ivacaftor, the blood concentrations of tezacaftor-ivacaftor did almost not change. Therefore, no changes in dose of tezacaftor-ivacaftor are needed based on these results.

What's next?

Some interactions between the new CFTR modulators and other drugs are not investigated in humans yet. When there are unknown interactions where more information about the changes in blood concentrations of the CFTR modulators are wanted, blood samples can be taken and concentrations can be measured in the hospital pharmacy.

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