Cariprazine pharmacokinetics

Aust Prescr 2022;45:9
https://doi.org/10.18773/austprescr.2022.005

In the new drug comment Cariprazine hydrochloride for schizophrenia there is a possible error.[1] The comment 'when deciding which drug to prescribe for controlling acute schizophrenia, it may be a consideration that cariprazine takes five days to reach 90% of its steady-state concentration' could be misleading. The product information states 'Cariprazine has two pharmacologically active metabolites with similar activities as cariprazine, desmethyl cariprazine (DCAR) and didesmethyl cariprazine (DDCAR). Total cariprazine (sum of cariprazine + DCAR and DDCAR) exposure approaches 50% of steady state exposure in ~1 week of daily dosing while 90% of steady state is achieved in 3 weeks'. While the steady-state concentration of the parent compound may be reached in a week, that of the pharmacologically active metabolites (similar potency to parent compound) will take significantly longer.

Carole Ramsay
Pharmacist, Central Adelaide Local Health Network, SA Pharmacy, Woodville South, SA

REFERENCE

1. Cariprazine hydrochloride for schizophrenia. Aust Prescr 2021;44:170-1. https://doi.org/10.18773/austprescr.2021.047

The Australian Prescriber Editorial Executive Committee comments:

Among the papers considered by the Editorial Executive Committee when discussing the new drug comment on cariprazine[1] was the Australian Public Assessment Report published by the Therapeutic Goods Administration. When assessing population pharmacokinetics, this states that the 'Median time to achieve 90% steady state for cariprazine and the metabolite DCAR was 5 days, and 21 days for the metabolite DDCAR'. The time to steady state will indeed be longer if all three molecules are considered.

From a practical perspective, it is probably cariprazine and desmethyl cariprazine that contribute to the early effects of the drug.[2]

REFERENCES

1. Cariprazine hydrochloride for schizophrenia. Aust Prescr 2021;44:170-1. https://doi.org/10.18773/austprescr.2021.047
2. Fagiolini A, Alcalá JÁ, Aubel T, et al. Treating schizophrenia with cariprazine: from clinical research to clinical practice. Real world experiences and recommendations from an international panel. Ann Gen Psychiatry 2020;19:55. https://doi.org/10.1186/s12991-020-00305-3