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Abacavir

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A considerable number of agents are available now for the treatment of HIV infection, all from 1 of 3 classes: nucleoside analogue reverse transcriptase (RT) inhibitors (NRTIs), non-nucleoside RT inhibitors (NNRTIs) and protease inhibitors (PIs). Standard therapy in many countries consists of a PI with 2 NRTIs, although other potent combinations are used as well.

Choice of drug depends on several factors including potency, convenience of use, drug interactions and adverse effects. In previously treated patients with virological failure, cross-resistance to the prior agents will largely determine the choice, which can be very limited. Cross-resistance is extensive between NNRTIs, considerable between PIs, partial between NRTIs and little between the 3 different classes.

Abacavir is an NRTI that appears to be the most powerful in its class thus far. Tolerability is fairly good. Abacavir shares some adverse effects with other antiretroviral agents, such as nausea, asthenia and rash (which also occurs with the NNRTI nevirapine). The latter can occur as part of a severe hypersensitivity reaction. However, peripheral neuropathy, which can limit the use of several NRTIs, is not a problem. In common with most NRTIs, abacavir can be administered twice daily without restrictions on food intake and it lacks significant drug interactions.

Viral resistance is the Achilles' heel of all antiviral drugs. The M184V mutation that can develop with abacavir can also develop with one of the most popular antiretrovirals used today: lamivudine. This mutation confers high-level resistance to lamivudine but only a 10-fold increase in resistance to abacavir. Furthermore, resistance to abacavir does not appear to develop as rapidly. Some overlap in resistance mutations also exists with didanosine. The clinical significance of these overlaps needs to be further studied in treatment-experienced patients.

In conclusion, clinical experience with abacavir is limited to date, but is rapidly expanding. Its exact place in therapy needs to be further established, but the drug looks promising as a powerful addition to the still limited antiretroviral armamentarium. ▲