impose fewer limitations on future treatment options (76). Topotecan's toxicity (neutropenia; leukopenia) is reversible and non-cumulative (77). Trastuzumab's toxicity (cardiotoxicity) tends to be reversible. According to Perez (78), "in contrast to anthracycline-induced cardiac toxicity, trastuzumab-related cardiac dysfunction does not appear to increase with cumulative dose or to be associated with ultrastructural changes in the myocardium and is generally reversible."

But, the toxicity of anthracyclines, such as doxorubicin, tends to be irreversible and cumulative. Doxorubicin's irreversible cardiac toxicity is well documented (79, 80). In the words of Montemurro et al. (81), "[a] steep increase in the risk for irreversible cardiotoxicity for cumulative doses of doxorubicin and epidoxorubicin . . . represents the main limitation to rechallenge with these drugs."

Carboplatin can produce irreversible toxicity. Where carboplatin is used for treating a particular cancer, and where the cancer returns and where carboplatin is administered again, the result can be a hypersensitivity reaction in the form of tachycardia (82). Kandel et al. (83), suggest a strategy for overcoming cumulative carboplatin toxicity, where it is necessary to re-administer a platin drug. Re-administering platin drugs may be needed where there is a relapse of ovarian cancer, to give an example. The suggestion is to switch from one type of platinum drug to another type of platinum drug, that is, from carboplatin to cisplatin (84, 85).

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