CORRESPONDENCE

To the Editor:

We would like to bring to the attention of the scientific research community the report of a workshop on gerontologic pharmacology that was published recently and of a National Institute on Aging Pharmacology Program announcement based on its recommendations. The elderly experience a greater incidence of adverse drug side effects and of drug/drug interactions than do young adults. Altered patterns in distribution, elimination, and responsiveness to most drugs occur in the elderly. Dosages are determined, for the most part, in young adults. It is not surprising, therefore, that the elderly may respond differently. Research is needed to investigate the mechanisms for age-related alterations in drug responsiveness. Studies are encouraged in both clinical and basic research areas. The NIA currently supports a Small Grant program that permits the addition of cohorts of elderly to ongoing pharmacologic studies. A Special Initiative program is available for introductory research studies in gerontologic pharmacology. The NIA Animal Resources Branch also provides genetically defined young and old mice and rats for pilot studies.

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Vincristine-Loaded Platelets for Autoimmune Thrombocytopenic Purpura

To the Editor:

Kelton et al., commenting on their discouraging results obtained using vinblastine (VLB) loaded platelets in patients affected with autoimmune thrombocytopenic purpura (ATP), hypothesized that vincristine (VCR) might prove more suitable than VLB for loading platelets because of its major ability to bind to platelets. We wish to report here our favorable results using VCR-instead of VLB-loaded platelets for the treatment of ATP.

Platelet destruction in ATP is due to ingestion of antibody-coated platelets by macrophages. Thus, a method has been devised to treat ATP by inducing a direct injury to macrophages with infusions of periwinkle alkaloid-loaded platelets. The selective transport of cytotoxic drugs to the target cells may, moreover, minimize the undesired side effects that often prove to be the limiting factor during therapy with vinca alkaloids.

The groups that have reported the use of vinca-loaded platelets in ATP adopted VLB. They treated a total of 27 patients and obtained 6 complete remissions lasting for up to 7 mo. Unfortunately, severe or even life-threatening side effects occurred, particularly in Kelton’s series. In a trial evaluating VCR-loaded platelets for the treatment of antibody-positive ATP refractory to steroids in nonsplenectomized patients, we have performed a total of 25 courses of infusions in 9 patients. A careful clinical, hematologic, and EMG-anatomic survey of side effects has shown completely negative results in all patients. We obtained three complete remissions lasting for up to 1 yr and two "good responses" according to Ries’ criteria. The figures we obtained overlap those reported in the entire group of the 27 cases in which VLB was used, with the advantage of the absence of side effects. This positive difference may be due to a higher release of VLB into the circulation from the infused platelets. Indeed, it has recently been shown that VLB rapidly elutes from platelets in vitro as well as in vivo, whereas all the VCR is retained.

We believe that VCR, instead of VLB, loaded platelets could be adopted even before considering splenectomy in patients with ATP refractory to steroids. Splenectomy could thus be avoided with its immediate and consequent risks.

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