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Drugs

BARBITURATE INTOXICATION Polyvinylpyrrolidone of molecular weight 10,000 (PVP-10) distributes rapidly throughout extracellular fluid. It is excreted rapidly and completely by glomerular filtration and is nontoxic after acute intravenous administration to rabbits, so its effects on rabbits intoxicated with phenobarbital and secobarbital were studied. Significant quantities of both barbiturates were found at serum concentrations of PVP attained by intravenous administration of 2 g/kg per hour of PVP-10. Renal clearance of the barbiturates was enhanced and the toxic state ameliorated more rapidly than by treatment with dextran of the same molecular weight. The effect was attributed to binding by PVP of a portion of the barbiturate in a non-reabsorbable form in tubular urine, as well as binding in a nondiffusible form in the extracellular space. (Ruedy, J., and Chernecki, W.: Use of a Binding Agent, Polyvinylpyrrolidone, in the Treatment of Experimental Barbiturate Intoxication in Rabbits, Canad. J. Physiol. Pharmacol. 46: 829 (Nov.) 1968.)