

has revealed that diazepam is a cerebral metabolic depressant. Although there has been no study concerning the effects of diazepam on the exchange rates of oxygen and glucose between blood and brain tissue, the most likely explanation for the transient but significant decrease in OGI 2 minutes after diazepam administration is an exchange rate of glucose which was slower than that of oxygen.

We conclude that diazepam is effective in blocking the EEG seizures, as well as in preventing the elevation of cerebral metabolism and circulatory changes, induced by lidocaine overdosage and that, in these circumstances, there exists a close relationship between cerebral metabolism and electrical activity.

## References

1. Sakabe T, Maekawa T, Ishakawa T, et al: The effects of lidocaine on canine cerebral metabolism and circulation related to the electroencephalogram. *ANESTHESIOLOGY* 40:433-441, 1974
2. Eidelberg E, Neer HM, Miller MK: Anticonvulsant properties of some benzodiazepine derivatives; possible use against psychomotor seizures. *Neurology* 15:223-230, 1965
3. Wesseling H, Bovenhorst GH, Wiers JW: Effects of diazepam and pentobarbitone on convulsions induced by local anesthetics in mice. *Eur J Pharmacol* 13:150-154, 1971
4. Munson ES, Wagman IH: Diazepam treatment of local anesthetic-induced seizures. *ANESTHESIOLOGY* 37:523-528, 1972
5. Munson ES, Martucci RW, Wagman IH: Bupivacaine and lignocaine induced seizures in rhesus monkeys. *Br J Anaesth* 44:1025-1029, 1972

## Endocrines

**REGULATION OF ALDOSTERONE CONCENTRATION** In normal man the renin-angiotensin system plays a major role in the regulation of aldosterone release. Experiments were performed to determine what factors regulate plasma aldosterone concentration in anephric patients and patients with transplanted kidneys. Peripheral renin activity, plasma aldosterone and serum potassium concentrations were measured with the patients in the supine and upright positions. Studies were performed in anephric patients on the first and third or fourth post-dialysis day. Studies in renal transplant recipients were performed during periods of high or low salt intake. Renin was essentially absent in anephric patients, and aldosterone concentrations did not change when they moved from the supine to the upright position. Significant elevations of serum potassium and aldosterone concentrations were found on the third or fourth day post-dialysis. Patients with functioning transplanted kidneys responded to a change from the supine to upright position with increases in peripheral renin activity and aldosterone concentrations, irrespective of sodium intake. Thus, the renin-angiotensin system is functional in patients with kidney transplants. Evidence that changes in potassium concentration rather than volume-related stimuli regulate aldosterone concentrations in anephric patients is provided. (Cooke, C.R., Ruiz-Maza, F., Kowarski, A. and others: *Regulation of Plasma Aldosterone Concentration in Anephric Man and Renal Transplant Recipients*. *Kidney Int* 3: 160, 1973.)