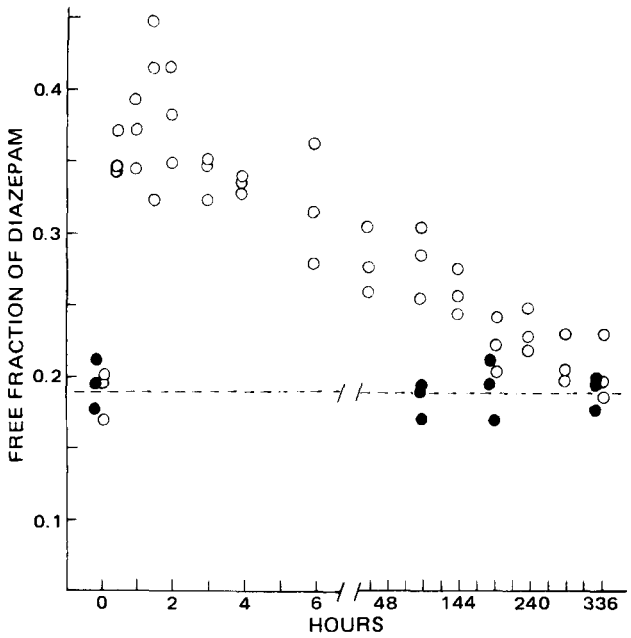

Figure 1—*Plasma protein binding of diazepam in rats after a 1-hr intravenous infusion of sodium oleate* (○) *or saline* (●).

oleate-treated rats. A maximum free fraction was observed 30–60 min after infusion. The unbound fraction of diazepam decreased continuously thereafter, but it was still higher than that observed in saline-treated rats after 7 days.

The maximum concentration of oleate in plasma (about 75 μmoles/liter) was observed at the termination of infusion. Thereafter, plasma concentrations of this fatty acid declined rapidly. Within 3 hr after administration, the plasma oleate concentration was less than 10 μmoles/liter. The reduction in plasma binding of diazepam appears to be unrelated to *in vivo* plasma oleate concentrations since *in vitro* addition of sodium oleate to plasma to produce concentrations comparable to those found 3 hr after *in vivo* administration had virtually no effect on diazepam binding. The same conclusions apply when sodium oleate is given as an intravenous bolus (Table I).

The prolonged impaired ability of plasma to bind diazepam after sodium oleate administration may be related to a slowly reversible change in the plasma proteins induced by the initially high concentrations of oleate or to the persistence of biotransformation products that can displace diazepam from binding sites. A more detailed report concerning the effects of sodium oleate on the plasma protein binding of phenytoin is in preparation.

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BOOKS

REVIEWS

The Alkaloids. Vol. 7. A Specialist Periodical Report. Edited by M. F. GRUNDON. The Chemical Society, Burlington House, London W1V OBN, England. 1977. x + 332 pp. 13.5 × 21.5 cm. Price $50.00. Available from Special Issues Sales, American Chemical Society, 1155 16th St., N.W., Washington, DC 20036.

M. F. Grundon is the senior reporter for the seventh volume of "The Alkaloids," which reviews the alkaloids literature published between July 1975 and June 1976. The reviews of Amaryllidaceae, *Erythrina*, imidazole, purine, and peptide alkaloids, which were not covered in Vol. 6, cover the period 1974–1976.

Each chapter effectively summarizes the important aspects of recent progress made on the particular types of alkaloids reviewed. Ample use of structures and schematics facilitates the clear presentations.

R. B. Herbert has again written an excellent chapter on biosynthesis, which includes recent work on secondary microbial metabolites as well as the various classes of alkaloids. It is of interest to note the increasing frequency of reporting the use of doubly-labeled precursors for biosynthetic work.

The major types of alkaloids are covered in the next 14 chapters, with the indole and isoquinoline alkaloids again representing the areas of most activity. The fast-growing use of ^{13}C-NMR spectroscopy for structure determination is becoming more evident. The final chapter (16) on miscellaneous alkaloids includes a section on unclassified alkaloids, which are presented in alphabetical order of plant or microbial source. The last section is noted to indicate the thorough reviewing characteristic of this series.

Volume 7 of this series continues the same concise format and style of the previous volumes. This reviewer especially likes the continued practice of placing the references on the page cited. For those who wish to keep abreast of the developments in the field of alkaloid chemistry, this volume is highly recommended despite the rather high cost.

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