

LETTERS TO THE EDITOR

REFERENCES

- British Pharmaceutical Codex (1959), p. 758.
 Garattini, S., Lamesta, L., Mortari, A., Palma, V. and Valzelli, L. (1961). *J. Pharm. Pharmacol.*, **13**, 385-388.
 Garattini, S., Giachetti, A., Jori, A., Pieri, L. and Valzelli, L. (1961). *In the press.*
 Gaunt, R., Renzi, A. A., Antonchak, N., Miller, G. J. and Gilman, M. (1954). *Ann. N.Y. Acad. Sci.*, **59**, 22-32.
 Litchfield, J. T. jnr. and Wilcoxon, F. (1949). *J. Pharmacol.*, **96**, 99-113.
 Sulser, F. and Brodie, B. B. (1961). *Biochem. Pharmacol.*, **8**, 16-26.

6-Methylcortisone Acetate 3-Enol Ethers—A New Group of Anti-inflammatory Agents

SIR,—Following our discovery of a new and highly efficient route to 6-methylated steroids, it has become possible to extend our work on corticoids to the 3-enol ethers of the now readily accessible 6 α -methylcortisone acetate (I). The ethers listed in Table I were prepared by adaptation of known methods [cf. Ercoli and Gardi (1960)] viz. (a) reaction of (I) with the alkyl orthoformate/alkanol in the presence of toluene *p*-sulphonic acid and (b) by ether exchange. Anti-inflammatory activity was estimated by the turpentine-agar pellet assay described in an earlier communication [Bianchi, David and others (1961)]. The results in the Table were obtained by oral administration, employing prednisolone acetate as standard.

TABLE I

3-Enol ether	Anti-inflammatory activity Prednisolone acetate = 1
Ethyl	1.2
n-Propyl	2.2
i-Propyl	1.7
n-Butyl	2.0
i-Butyl	2.1
n-Pentyl	1.1
Cyclopentyl	1.3
n-Hexyl	0.8
Cyclohexyl	1.7
n-Heptyl	0.8
n-Octyl	1.7
Benzyl	0.9
3'-Phenylpropyl	0.4

Maximal anti-inflammatory activity was shown by 6-methyl cortisone acetate 3-enol n-propyl ether and this compound is being examined further.

Chemical Research and Biological
 Departments,
 The British Drug Houses Ltd.,
 Graham Street,
 London, N.1.

A. DAVID
 D. N. KIRK
 V. PETROW
 D. M. WILLIAMSON
 (Miss) E. J. WOODWARD

January 11, 1962.

REFERENCES

- Bianchi, C., David, A., Ellis, B., Petrow, V., Waddington-Feather, B. and Woodward, E. J., (1961). *J. Pharm. Pharmacol.*, **13**, 355-360.
 Ercoli, A. and Gardi, R., (1960). *J. Amer. chem. Soc.*, **82**, 746-748.