

STRUCTURE AND CONFIGURATION OF EDPETILININE

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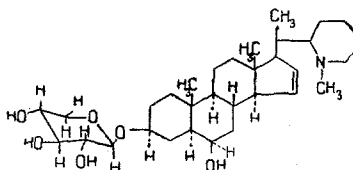
The ethereal fraction from the epigeal part of *Petilium eduardi* after the removal of the imperialine [1] was separated according to the solubilities in chloroform of the hydrochlorides of the bases present. From the chloroform-soluble fraction a new alkaloid edpetilinine was isolated with the composition of $C_{33}H_{55}O_6N$, mp 262-264°C, $[\alpha]_D^{25} -10.86^\circ$ (c 0.23; pyridine), R_f 0.37 (TLC on silica gel in the ethanol-chloroform (2:1) system).

Edpetilinine is a tertiary base and its IR spectrum has ν_{max} , cm^{-1} : 3400, 1115-1015 (broad, strong) (OH), 2930, 1470 (CH_3), 1770 (N- CH_3), 1770 (N- CH_3), and 1640 (double bond).

Under the action of hot 5% H_2SO_4 , edpetilinine hydrolyzes. The alkaline fraction of the hydrolysis yielded an amino alcohol, edpetilidine, with the composition $C_{28}H_{47}O_2N$, mp 269-271°C, $[\alpha]_D +42.82^\circ$ [1, 2], and the neutral fraction was found by paper chromatography to contain xylose, with R_f 0.32 [acetone-butan-1-ol-water (7:2:1) system, spot revealed with o-toluidine].

The results of a determination of the difference in the molecular rotations of edpetilinine and edpetilidine according to Klyne's rule [3, 4] showed that in the molecule of edpetilinine the xylose is attached to the edpetilidine by a β -glycosidic linkage.

On the basis of these results it may be suggested that the most probable structure and configuration of edpetilinine is β -D-xylopyranosidoedpetilidine.



REFERENCES

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