

In Central India, *Hippeastrum equestre* Herb., family *Amaryllidaceae*, is widely used in folk medicine [1]. From its bulbs, lycorine, tazettine, and pseudolycorine have previously been isolated [1-3]. We have investigated the alkaloid composition of the hypogeal organs of *Hippeastrum equestre* Herb. collected in the People's Republic of Bangladesh in the flowering period.

The comminuted air-dry raw material consisting of bulbs with roots (2.5 kg) was moistened with 10% ammonia solution and repeatedly extracted with chloroform, and the chloroform extract was concentrated to a syrupy state. The alkaloids were extracted from the resin with 10% sulfuric acid. The acid extract was washed several times with ether and was made alkaline with 25% ammonia solution, with cooling. This led to the deposition of a grey precipitate (sum A<sub>1</sub>, 6.26 g). After the separation of the precipitate from the alkaline solution, the alkaloids were exhaustively extracted with chloroform. The chloroform was distilled off and combined bases were obtained (sum A<sub>2</sub>, 18.49 g).

From sum A<sub>1</sub>, on the basis of solubility differences in organic solvents, 5.24 g of lycorine [1, 2] and 0.86 g of galanthine [4] were isolated.

Sum A<sub>2</sub> was dissolved in acetone, leaving a residue of 2.39 g of lycorine. The mother solution after the separation of the lycorine was chromatographed on a column of type KSK silica gel (1:30). The eluents used were mixtures of chloroform and methanol in various proportions (99:1, 98:2, 97:3, 95:5, and 9:1). The fraction eluted with chloroform-methanol (99:1) yielded 2.05 g of hippeastrine [5], the (98:2) fraction yielded 2.58 g of tazettine [3], the (97:3) fraction yielded 1.60 g of a base (I) with mp 201-202°C (acetone); and the (95:5) fraction yielded 0.58 g of a base (II) with mp 125-127°C (methanol).

The bases isolated were identified with the aid of thin-layer chromatography and UV, IR, NMR, and mass spectroscopy and by determinations of physicochemical constants.

Thus, we have established that the bulbs with roots of *Hippeastrum equestre* Herb. collected in the People's Republic of Bangladesh in the flowering period contain 0.99% of total alkaloids. From the total alkaloids of the hypogeal organs we have isolated six alkaloids, of which galanthine and hippeastrine have not previously been isolated from this plant.

#### LITERATURE CITED

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