

ALKALOIDS OF UNGERNIA SPIRALIS AND STERNBERGIA LUTEA

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The comminuted air-dry leaves (11 kg) of U. spiralis collected on April 24, 1966, in the Kara-Kala region of TurkmSSR, were moistened with 8% ammonia and extracted with chloroform (six times). Each extract was treated with 10% H₂SO₄. The acid solution was made alkaline with ammonia, and lycorine precipitated (0.11% of the weight of the plant). The alkaline solution yielded 0.18% of combined alkaloids.

After the isolation of the lycorine, the following alkaloids were isolated from the first-third extracts and identified: galanthamine (0.75 g) [1], ungeremine (0.3 g) [2], hippeastrine (0.2 g) [3], and tazettine (0.15 g) [1]. These alkaloids have been isolated from U. spiralis for the first time.

The epigeal part of S. lutea [4], collected on April 17, 1969, in the Kara-Kala region was extracted with chloroform. The extract was treated as described above, giving 1% of lycorine and 0.4% of ethereal and 0.16% of chloroformic alkaloids.

By treatment with acetone, the ethereal fraction of the total alkaloids yielded 0.18% of pancratine. By the method described above, the bulbs of S. lutea yielded 0.21% of lycorine, 0.29% of ethereal, and 0.15% of chloroformic fractions of the mixture of alkaloids. By separation according to basicities, the ethereal fraction yielded 0.028% of pancratine and 0.052% of tazettine.

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