# **Species (Family)**

Selenicereus grandiflorus (L.) Britt. & Rose (Cacta-

# Synonym(s)

Cactus grandiflorus, Cereus grandiflorus Mill., Night Blooming Cereus

# Part(s) Used

Stem

#### Pharmacopoeial and Other Monographs

PDR for Herbal Medicines 2nd edition<sup>(G36)</sup>

# Legal Category (Licensed Products)

Cereus is not included in the GSL.<sup>(G37)</sup>

# Constituents<sup>(G22,G40,G64)</sup>

Alkaloids Isoquinoline-type. Unidentified alkaloids.<sup>(1)</sup>

Amines Tyramine<sup>(2)</sup>, hordenine,<sup>(3)</sup> previously referred to as cactine.

*Flavonoids* Rutin, kaempferitrin, hyperoside, isorhamnetin- $3-\beta$ -(galactosyl)-rutinoside.

Other constituents Resin

### Food Use

Cereus is not used in foods.

# Herbal Use

Cereus is reputed to act as a cardiac stimulant and as a partial substitute for digitalis, although there is no proof of its therapeutic value. Cereus has been used in cases of dropsy and various cardiac affections.<sup>(G10,G64)</sup>

### Dosage

Liquid extract of cereus (BPC 1934) 0.06-0.6 mL.

Tincture of cereus (BPC 1934) 0.12-2.0 mL.

# **Pharmacological Actions**

#### In vitro and animal studies

None documented for cereus. Cereus is reported to contain a cardiotonic amine, tyramine, which has positive inotropic activity.

## Side-effects, Toxicity

The fresh juice of cereus is irritant to the oral mucosa, causing a burning sensation, nausea and vomiting. Diarrhoea has also been reported following cereus consumption.<sup>(G22)</sup>

### **Contra-indications, Warnings**

In view of the documented tyramine content, excessive doses of cereus may interact with concurrent monoamine oxidase inhibitor (MAOI) treatment and may affect patients with an existing cardiac disorder.

**Pregnancy and lactation** The safety of cereus has not been established. In view of the limited information available on cereus, its use during pregnancy and lactation should be avoided.

### **Pharmaceutical Comment**

Little phytochemical or pharmacological information has been documented for cereus, although the presence of tyramine, a cardiotonic amine, may support the traditional use of cereus as a cardiac stimulant. Cardiac complaints are not considered to be suitable for self-medication.

### References

See also General References G10, G22, G31, G36, G37, G40, G48 and G64.

- 1 Brown SD et al. Cactus alkaloids. Phytochemistry 1968; 7: 2031-2036.
- 2 Wagner H, Grevel J. Neue herzwirksame drogen II, nachweis und isolierung herzwirksamer amine durch ionenpaar-HPLC. *Planta Med* 1982; 44: 36-40.
- 3 Petershofer-Halbmayer H et al. Isolierung von



#### Hordenin (Cactin) aus Selenicereus grandiflorus (L.) Britt. & Rose und Selenicereus pteranthus

# (Link & Otto) Britt. & Rose. Sci Pharm 1982; 50: 29-34.