Aloe vera (L.) Burm. F.صبار/صبر

Aloe vera leaves

English name(s): Cactus, aloe, murr, sabbara, saber.

Arabic name(s): صبار/ صبر.

Synonym(s):

Aloe barbadensis Mill., Aloe chinensis Bak., A. elongata Murray, A. indica Royle, A. officinalis Forsk., A. perfoliata L., A. rubescens DC, A. vera L. var. littoralis König ex Bak., A. vera L. var. chinensis Berger, A. vulgaris Lam.

Family: Liliaceae**.**

Parts used for medicinal purpose.

- ***Solidified juice*** *originating in the cells of the pericycle and adjacent leaf parenchyma.*
- ***Aloe Vera "Gel",*** *a colorless mucilaginous gel obtained from the parenchymatous cells in the leaves of Aloe vera (L.) Burm. f.*

Morphology

Flower and Fruit: The inflorescence is forked once or twice and is 60 to 90 cm high. The raceme is dense, cylindrical and narrows toward the top. The terminal raceme is up to 40 cm high while the lower ones are shorter. The bracts are almost white, and the flowers are yellow, orange or red, and are 3 cm long.

Leaves, Stem and Root: The lily-like succulent-leafed rosette shrub with 25 leaves in an upright dense rosette. The lanceolate leaf is thick and fleshy, 40 to 50 cm long and 6 to 7 cm wide at the base.

Active constituents

- **Anthracene derivatives:** particularly anthrone-10-*C*-glycosyls, including aloin A, aloin B, 7-hydroxyaloins A and B, and 1,8-dihydroxy ions, including aloe-emodin.
- **2-Alkylchromones:** including aloe resins B, C and D.

Pharmacological applications (Indications)

- **Uses supported by clinical data:**
  Short-term treatment of occasional constipation.
- **Uses described in pharmacopoeias:**
  None.
- **Uses described in folk medicine, not supported by experimental or clinical data:**
  Treatment of seborrhoeic dermatitis, peptic ulcers, tuberculosis, and fungal infections, and for reduction of blood glucose levels.
- Use of Aloe vera gel extracts in healthy foods and beverages, and moisturizing cosmetics.

Contraindications

- Intestinal obstruction or stenosis, severe dehydration with electrolyte depletion, or chronic constipation.
- Inflammatory intestinal diseases, such as appendicitis, Crohn disease, ulcerative colitis, irritable bowel syndrome.
- Children under 10 years.
- During pregnancy or lactation except under medical supervision after evaluating benefits and risks.
- Cramps, colic, haemorrhoids, nephritis, or any undiagnosed abdominal symptoms such as pain, nausea, or vomiting.

Side effects

- Abdominal spasms and pain may occur after even a single dose.
- Overdose can lead to abdominal spasms and pain, as well watery stools.
- Chronic abuse of anthraquinone stimulant laxatives can lead to hepatitis.
- Long-term laxative abuse may lead to electrolyte disturbances (hypokalaemia, hypocalcaemia).
- Weakness and orthostatic hypotension may be in elderly patients when repeated use of stimulant laxatives.
- Secondary aldosteronism may occur owing to renal tubular damage after aggravated use.
- Steatorrhoea and protein-losing gastroenteropathy with hypoalbuminaemia may occur.
- Excessive excretion of calcium in the stools and osteomalacia of the vertebral column.

- Melanotic pigmentation of the colonic mucosa (*pseudomelanosis coli*) has been observed in excessive use.

Suitable methods of administration

Powdered and dried juice for **oral** use.

Examples in Egyptian market

Not commonly found in Egyptian pharmaceutical industries.

References

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PDR for herbal medicines (2002). Montvale, NJ: Medical Economics Company, 2nd ed., ISBN 1-56363-361-2.

WHO monographs on selected medicinal plants (1999). Volume 1, 136-144.