D.PHARM • FIRST YEAR

फार्माकोग्नोसी

अध्याय 5

प्राकृतिक स्रोतों की कच्ची औषधियाँ

हिंदी अध्याय नोट्स



DIPLOMA IN PHARMACY

NATURAL LAXATIVES: TYPES AND ACTIONS

DEFINITION

Laxatives bowel evacuation facilitate करते हैं और constipation में उपयोग होते हैं।

KEY CONSTITUENTS

Anthraquinone glycosides • mucilage • fatty acids • salts

STIMULANT

intestinal motility और secretion बढ़ाते हैं; Senna, Aloes



Senna



Aloes

motility और secretion बढ़ती है



BULK-FORMING

water absorb करके stool bulk बढ़ाते हैं; Ispaghula



water absorb होकर बड़ा soft stool बनता है



Ispaghula

OSMOTIC / SALINE

bowel में water retain करते हैं; magnesium salts



magnesium salts

water bowel में retain होता है

passage आसान होता है

LUBRICANT / PURGATIVE OIL

passage आसान या stimulate करते हैं; Castor Oil



Castor Oil

SAFE-USE NOTE

Type, dose, hydration और duration important हैं; persistent constipation में clinical assessment चाहिए।

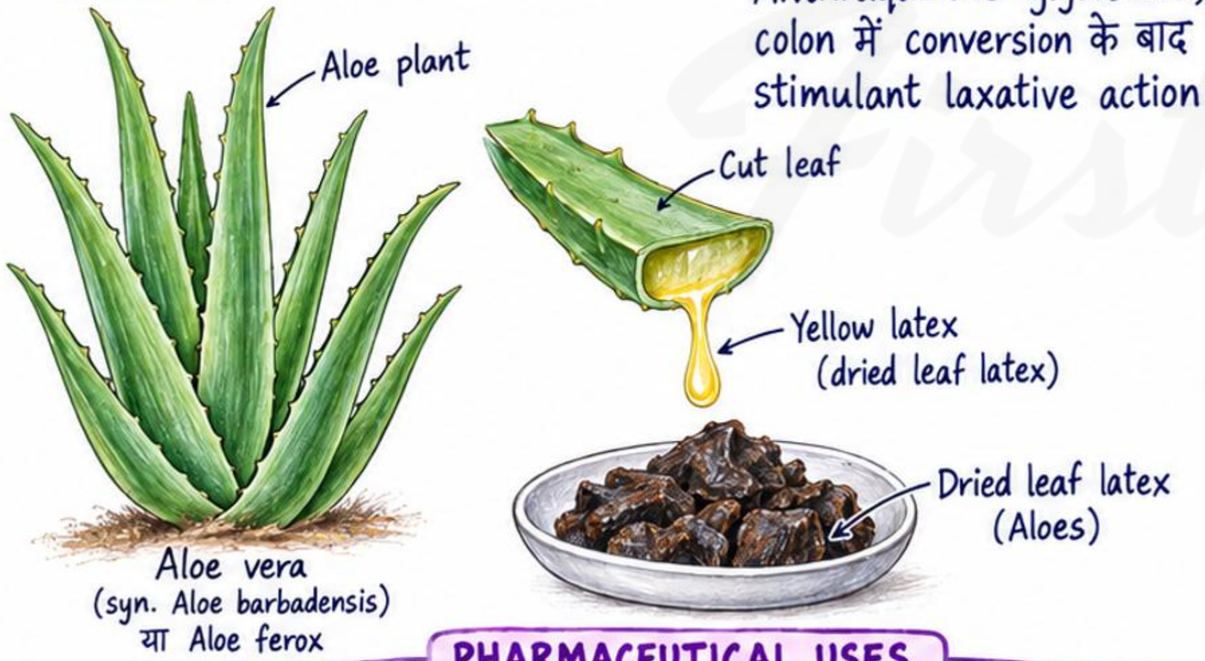
ALOES AND CASTOR OIL

ALOES

BIOLOGICAL SOURCE

Aloe vera (syn. Aloe barbadensis) या Aloe ferox का dried leaf latex; इसे inner Aloe gel से अलग समझें।

FAMILY: Asphodelaceae



Aloe vera
(syn. Aloe barbadensis)
या Aloe ferox

KEY CONSTITUENTS

Aloin A and B (barbaloin), aloe-emodin derivatives

IDENTITY / ACTION

Anthraquinone glycosides; colon में conversion के बाद stimulant laxative action।

PHARMACEUTICAL USES

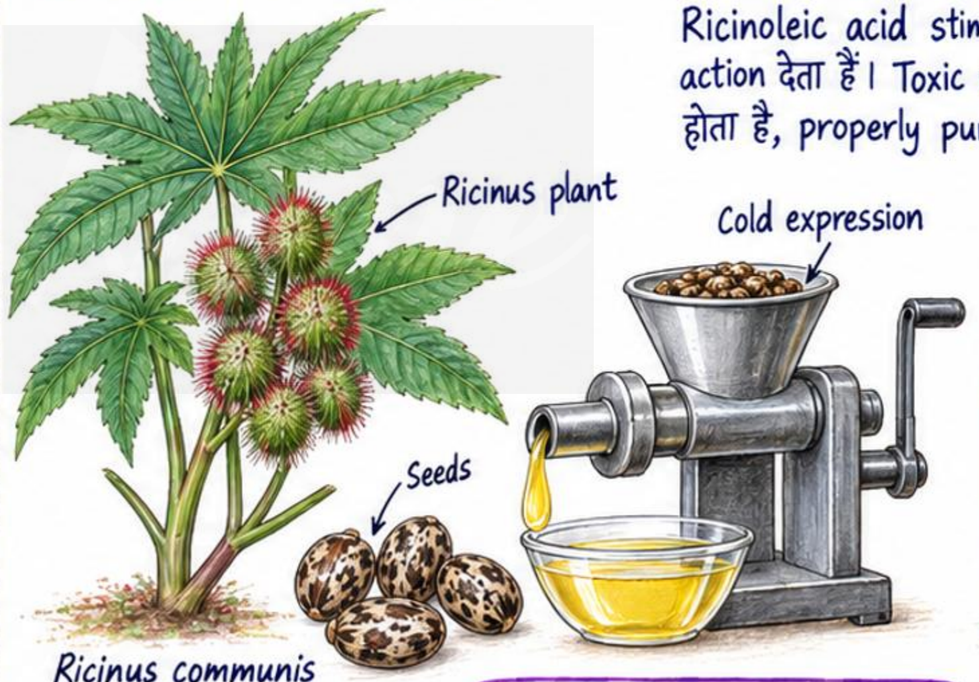
Short-term laxative preparations;
Aloe gel अलग से skin-care products में उपयोग होता है।

CASTOR OIL

BIOLOGICAL SOURCE

Ricinus communis के seeds से सामान्यत: cold expression द्वारा प्राप्त purified fixed oil।

FAMILY: Euphorbiaceae



Ricinus communis

KEY CONSTITUENTS

Triglycerides rich in ricinoleic acid; minor oleic, linoleic and stearic acids

IDENTITY / ACTION

Ricinoleic acid stimulant-purgative action देता है। Toxic ricin raw seed में होता है, properly purified oil में नहीं।

PHARMACEUTICAL USES

Professional guidance में purgative; pharmaceutical vehicle और cosmetic emollient।

KEY DIFFERENCE

Aloes is dried leaf latex rich in anthraquinone glycosides; Castor Oil is a purified fixed oil rich in ricinoleate.

ISPAGHULA AND SENNA

ISPAGHULA

BIOLOGICAL SOURCE

Plantago ovata के dried seeds का husk।

FAMILY:

Plantaginaceae

KEY CONSTITUENTS

20–30% hydrophilic mucilage containing arabinose, xylose and uronic-acid polysaccharides

IDENTITY / ACTION

Water absorb करके gel बताता है और stool bulk तथा moisture बढ़ाता है।

PHARMACEUTICAL USES

Bulk-forming laxative; powders, granules और capsules में bowel-regulating fibre।





KEY DIFFERENCE

Ispaghula water-swelling bulk laxative है; Senna anthraquinone stimulant laxative हैं।

SENNA

BIOLOGICAL SOURCE

Senna alexandrina (syn. Cassia angustifolia / C. acutifolia) के dried leaflets और pods।

FAMILY:

Fabaceae

KEY CONSTITUENTS

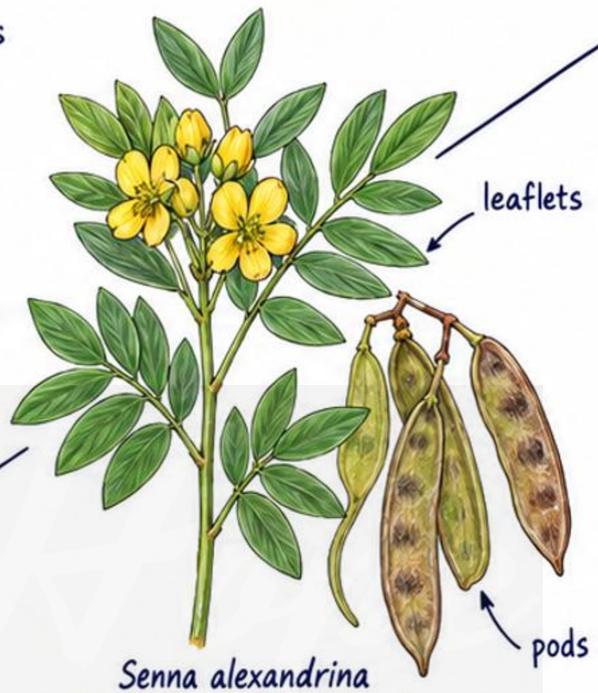
Sennosides A and B; rhein and aloe-emodin derivatives

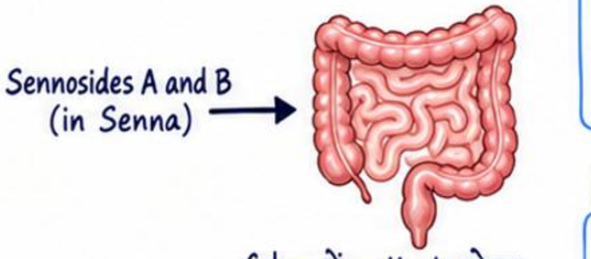
IDENTITY / ACTION

Anthraquinone glycosides colon में activate होकर peristalsis stimulate करते हैं।

PHARMACEUTICAL USES

Short-term constipation के लिए tablets, syrups और granules में stimulant laxative।





Ispaghula is a water-swelling bulk laxative. | Senna is an anthraquinone stimulant laxative.

CARDIOTONIC AGENTS: CORE CONCEPTS

DEFINITION

Cardiotonic या positive inotropic agents myocardial contraction की force बढ़ाते हैं।

MAIN GROUPS

CARDIAC GLYCOSIDES

Digitalis का digoxin; Na^+/K^+-ATPase inhibit → intracellular Ca^{2+} rise

SYMPATHOMIMETIC AMINES

dopamine, dobutamine; β_1 stimulation से cAMP और Ca^{2+} entry बढ़ती है

PDE-III INHIBITORS

milrinone; cAMP breakdown धीमा करता है

CLINICAL RELEVANCE

Selected heart-failure, shock और arrhythmia care में close monitoring।

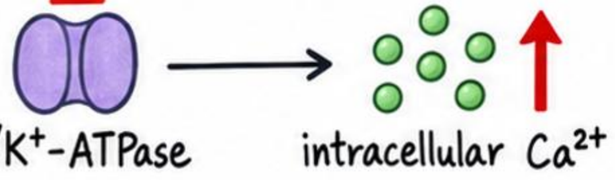
CAUTION

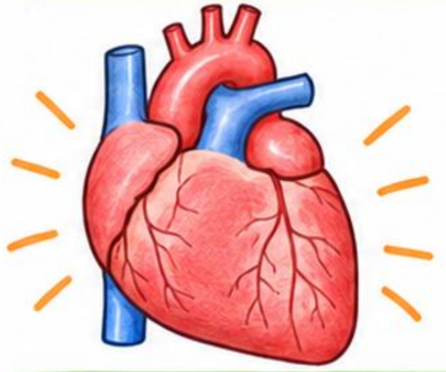
Digoxin का therapeutic index narrow है; dose और interactions professional control में चाहिए।



Weakened contraction

TREATMENT (Cardiotonic agents)





Stronger contraction

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