Grahani (Irritable Bowel Syndrome)

Irritable Bowel Syndrome (IBS)

(Integrating Contemporary Gastro-enterology with Āyurvedic Grahaṇī-vikāra Concepts)

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1. Disease Description

Modern view

- IBS is a chronic, relapsing functional bowel disorder characterised by abdominal pain associated with altered stool form and/or frequency in the absence of detectable structural pathology (Rome IV, 2016).
- Global prevalence ≈ 4–7 %. Women : men ≈ 2 : 1; peak 20-40 y.
- Major impact: impaired quality-of-life, work absenteeism, health-care cost.

Āyurvedic lens

- Closely resembles various presentations of **Grahāṇī-roga / Pakvāśayagata Vāta** in Bṛhattrayī – alternating constipation/diarrhoea, incomplete evacuation, flatulence, abdominal pain, post-defecatory relief.
- Also overlaps with **Udāvarta, Atisāra (pravāhikā subtype)** or **Ajīrṇa** depending on phenotype.

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2. Types / Clinical Sub-classes

Rome IV Stool-based Sub-types (≥25 % of bowel motions)

Abbreviation	Predominant Pattern	Probable Āyurvedic Analogue
IBS-C	Constipation-predominant	Vātaja Grahaṇī / Vibandha
IBS-D	Diarrhoea-predominant	Pittaja or Kaphānubandha Grahaṇī
IBS-M	Mixed (C + D ≥25 %)	Sannipātaja Grahaṇī
IBS-U	Unclassified	Vaiṣamya-grahaṇī

Extra modern phenotypes:

- Post-infectious IBS
- Menstrual-exacerbated
- Post-cholecystectomy, etc.

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3. Causes & Risk Factors

IBS is multi-factorial; no single “cause”.

1. **Gut–Brain Axis Dysregulation**
   - Heightened visceral hypersensitivity
   - Altered CNS processing of pain & motility signals
2. **Dysmotility**
   - Accelerated transit (IBS-D) / delayed transit (IBS-C)
3. **Microbiome Imbalance**
   - ↓ diversity, ↑ gas-forming bacteria, SIBO in ~40 %

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4. **Low-grade Mucosal Immune Activation**
   - Mast cell / enterochromaffin cell proliferation
5. **Post-Infective Sequelae**
   - Campylobacter, Salmonella, Shigella → PI-IBS
6. **Psychosocial Stressors**
   - Anxiety, depression, history of abuse
7. **Dietary Factors**
   - FODMAPs, gluten, caffeine, artificial sweeteners
8. **Hormonal**
   - Oestrogen/progesterone influence (↑ during luteal phase)
9. **Genetic Predisposition** (weak; e.g., serotonin transporter polymorphism).

Āyurvedic Nidāna parallels:

- Vishama āhāra-vihāra (irregular meals, night-vigil)
- Guru-snigdha-pichchhila (heavy oily) or Ati-rukṣa (over dry) diet
- Viruddhāhāra combinations
- Vegā-dharana (suppressed urges)
- Mano-abhigata: Śoka, Bhaya, Krodha → Vāta-pitta vitiation.

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4. Etiopathogenesis

4.1 Modern Pathophysiology

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Trigger (infection / stress / diet)
          ↓
Epithelial & immune activation—↑ permeability, cytokines
          ↓
Enteric nervous system sensitisation—↑ serotonin release
          ↓
Central pain amplification → Abdominal pain
          ↓
Altered motility + secretion → Constipation / diarrhoea
          ↓
Anxiety / worry reinforce CNS loops (viscous cycle)
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4.2 Āyurvedic Samprāpti

Nidāna → **Agnimāndya** → Āma production → Kapha-āma coats intestinal mucosa (Grahāṇī) → **Apāna-Vāta prakopa** with erratic gati → a. Udāvartita (upward) Vāta → colicky pain, bloating b. Anulomana failure → alternation of stools, incomplete evacuation. Chronic friction of Vidagdha-Pitta leads to mucus, burning, loose stools (IBS-D).

Samprāpti-vighaṭana focus: Āma-pācana + Agni-dīpana + Vāta-anulomana + Grahaṇī-sthāpanam.

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5. Differential Diagnosis

Condition	Key Discriminators
Inflammatory Bowel Disease (IBD)	Nocturnal diarrhoea, rectal bleeding, ↑CRP, colonoscopy ulcers
Celiac disease	Steatorrhoea, malabsorption, tTG-IgA positive
Lactose / Fructose intolerance	H_2 breath test positive; symptom onset after dairy/fruit
Microscopic colitis	Watery diarrhoea, normal colonoscopy, biopsy ×

Condition	Key Discriminators
Colorectal cancer	Anaemia, >50 y, weight-loss, bleed; colonoscopy lesion
Hyperthyroidism / Hypothyroidism	TSH abnormalities; systemic signs
Endometriosis (women)	Cyclic pain, dysmenorrhoea, pelvic imaging
Chronic pancreatitis	Pancreatic calcification, ↑ fecal fat

6. Diagnosis (Rome IV Toolkit)

1. **Clinical Criteria** • Recurrent abdominal pain ≥1 day/week for last 3 months, onset ≥6 months ago, associated with ≥2: a) relation to defecation, b) change in stool frequency, c) change in stool form.
2. **Alarm Features Requiring Further Work-up**
   - Age > 45–50 y new onset - GI bleed - Unintentional weight-loss - Family history CRC/IBD - Anaemia - Fever / nocturnal symptoms.
3. **Investigations (selective)** • CBC, CRP, ESR • tTG-IgA, Stool calprotectin (to exclude IBD) • Colonoscopy if red flags, age >50 or persistent diarrhoea • Lactose H_2 breath test, SIBO breath test (methane/H_2) • Thyroid profile, faecal ova & cyst, basic metabolic panel.

IBS remains a positive clinical diagnosis once structural disease excluded.

7. Prognosis

- Benign; no excess mortality or cancer risk.
- Waxing–waning course; 30 % achieve long-term remission, 20 % moderate disability.
- Predictors of poor outcome: severe baseline pain, psychological comorbidity, female sex, IBS-M.

8. Modern Therapeutic Spectrum

8.1 General & Dietary

Advice	Evidence
Low-FODMAP diet (6 wk) then re-challenge	50–70 % symptom relief
Adequate soluble fibre (psyllium 10 g/d) – esp. IBS-C	Grade A
Regular meals, limit caffeine, alcohol, spicy, sorbitol	Consensus
Physical activity 30 min/day	Improves bloating & mood

8.2 Drug Armamentarium

Sub-type	Drug Class & Example	Comment
IBS-C	– Bulking fibre – PEG-3350 – Lubiprostone 8 µg BID – Linaclotide 290 µg OD – Prucalopride 2 mg OD	↑ stool water; GCC-agonist also ↓ pain
IBS-D	• Loperamide 2–4 mg prn • Bile acid binder (colesevelam) • Rifaximin 550 mg TID×14d • Eluxadoline 100 mg BID	Rifaximin repeat q4 m; caution pancreatitis with eluxadoline
Pain/Bloating (All)	Antispasmodics (dicyclomine, hyoscine), Peppermint-oil enteric caps	Meta-analysis supports peppermint

Sub-type	Drug Class & Example	Comment
Central Modulators	• Low-dose TCA (amitriptyline 10–25 mg HS) for IBS-D • SSRI (citalopram 20 mg) for IBS-C/M	Analgesic/visceral pain benefit
Gut–brain	Psychological: CBT, hypnotherapy, mindfulness	Equivalent to pharmacotherapy

Emerging: BGM probiotics (B. infantis 35624), fecal microbiota transplant (in research).

9. Āyurvedic Management

9.1 Nidāna-Pañcaka (for IBS presentation)

Component	Details
Nidāna	Irregular eating, junk food, vegā-dharana, stress
Pūrvārūpa	Anannābhinanda, tandra, mukhasrava
Rūpa	Abdominal pain relieved after passing stool/flatus, alternating bowel pattern, mucus, bloating
Upaśaya	Hot water, buttermilk, hingvāṣṭaka; Anupaśaya – cold drinks, day-sleep
Saṃprāpti	Agnimandya → Āma + Kapha āvaraṇa → Apāna-Vāta viṣama →

9.2 Doṣa-wise Cikitsā Sūtra

1. **Vātaja (IBS-C)** “Sneha-sveda-gandharvahastādi taila-bastiḥ; Triphalā-Eranda at bedtime.”
2. **Pittaja (IBS-D Hot)** “Śīta-tikta virecanaḥ, Musta-Yashti-kūtaja yuktam takra-pāna.”
3. **Kaphaja / Mucus-predominant** “Kaṭu-tikta dīpana, Vamana-pūrvaka laghu langhana, Pañcakola-kvātha.”
4. **Sannipātaja (IBS-M)** Sequential: Āma-pācana → Karma-basti (Yoga-basti 16) → Ghṛta-based rasāyana.

9.3 Cikitsā-Yojanā (Practical Protocol)

Stage	Intervention	Formulations (Dose & Anupāna)
Āma-pācana & Dīpana	7–10 d	Pañcakola Cūrṇa 3 g + warm water before meals; Shunthi+Ajwain decoction 50 ml BID
Śodhana	According to doṣa	• Vāta: Anuvāsana Basti with *Eranda-taila* 60 ml alt. day ×5 • Pitta/Kapha: *Kūtaja-Ghṛta* snehapāna 30 ml ×3 d then Avipattikara Virecana
Śamana	–	
	Hingvāṣṭaka Cūrṇa 2 g with ghee before meals	Gas/bloating
	Kūtaja-ghan Vaṭi 500 mg TID	IBS-D mucus loose stool
	Bilvādi Cūrṇa 3 g with warm water	Pain & insecurity of stool
	Triphala-Ghṛta 10 ml HS	IBS-C & mucosal healing
	Dadimāshtaka Cūrṇa 3 g with spiced buttermilk	Post-meal digestion
Rasāyana	30–60 d	*Śatāvarī-Ghṛta* 10 ml HS + *Guduchi Sattva* 500 mg BID

9.4 Pathya-Apathya

PATHYA

1. Old red/white rice, barley, green-gram khichadi with cumin-hing ghee
2. Spiced **Takra** (buttermilk) post-lunch: 100–150 ml with rock-salt & roasted cumin
3. Pomegranate, ripe banana, guava, nutmeg-infused warm water (IBS-D)
4. Warm water sipping; coriander-fennel infusion
5. Routine: early meals, 100-step post-meal walk, adequate sleep

6. Yogāsana & Prāṇāyāma: Pavanamuktāsana, Vajrāsana after food, Nāḍī-śodhana, Bhrāmarī

APATHYA

1. Excess maida, bakery, cheese, carbonated drinks
2. Curd at night, ice-cream, raw salads in large quantity
3. Eating while watching screen, suppressed urges, prolonged sitting
4. Alcohol, smoking, chillies, vinegar, ketchup
5. Day-sleep immediately after lunch; late-night vigil.

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10. Integrated Management Algorithm

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▶ Rule out red flags → if absent, diagnose IBS (Rome IV)
        ↓
▶ Start diet & lifestyle (Low-FODMAP / Āyurveda Pathya)
        ↓
▶ Sub-type Target:
   IBS-C → Fibre ± PEG / Lubiprostone + Vāta-śamana basti
   IBS-D → Loperamide / Rifaximin + Kūtaja-ghan, Takra-pāna
   IBS-M → Symptom-directed + Karma-basti
        ↓
▶ Psych-gut axis: CBT / Yoga-prāṇāyāma / Śirodhārā
        ↓
▶ Re-assess 6–8 weeks
   • Improved → Continue maintenance with Triphala-Ghṛta, Pathya
   • Poor response → Advanced Rx (linaclotide, eluxadoline) or multi-disciplinary review
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11. Prognostic Pearls

Factor	Favourable	Unfavourable
Symptom duration	<6 months	>5 years
Psychological overlay	Mild	Severe anxiety, depression
Patient engagement	Adherent to diet & yoga	Poor compliance
Coexistent SIBO	Treated	Persistent

With combined **biomedical & Āyurvedic** approach, 60–80 % of patients achieve ≥50 % global symptom relief within 3 months.

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