1.4. Special signs and symptoms pertaining to surgery

#त्रिविध-परिक्षा# — *darśana* (inspection), *sparśana* (palpation), and *praśna* (history-taking) are the pillars of clinical examination in Suśruta's method; all signs and symptoms below are essentially refined uses of these three.

1) General surgical "red flags" (systemic)

Pattern	Typical bedside clues	Why it matters
Inflammation → Sepsis → Septic shock	Fever or hypothermia, tachycardia, tachypnea, leukocytosis/leukopenia (SIRS); then organ dysfunction, hypotension	Recognize early SIRS/sepsis to escalate fluids/antibiotics and source control.
Hemorrhagic shock	Cool clammy skin, tachycardia, narrow pulse pressure, altered mentation, oliguria	Rapid control of bleeding + resuscitation.
Dehydration	Dry tongue, poor skin turgor, tachycardia, postural drop	Optimize fluids pre-op.
Anemia / Jaundice	Pallor; icterus with dark urine, pale stools	Guides workup for GI bleed/hemolysis or obstructive jaundice.
Cyanosis / Clubbing / Edema / Lymph nodes	Central vs peripheral cyanosis; clubbing grades; pitting edema; hard fixed node vs soft tender node	Staging, nutrition, cardiopulmonary optimization, cancer clues (see Virchow/Troisier below).

Mnemonic (peritonitis): **G-R-A-B** → *Guarding*, *Rigidity*, *Absent bowel sounds*, *Blumberg* (rebound).

2) Abdomen: peritoneal & organ-specific signs

Sign/test	How to elicit	Positive finding	Usual implication
Blumberg (rebound)	Press slowly then release abruptly	Pain **on release**	Peritoneal irritation (appendicitis, perforation, etc.).
Cough/Dunphy	Ask patient to cough	Localized pain "points with one finger"	Focal peritonitis; often appendicitis.
Rovsing	Press LLQ	RLQ pain	Appendicitis.
Psoas	R hip extension or flexion against resistance	RLQ pain	Retrocecal appendix.
Obturator	Flex knee/hip; internally rotate	RLQ/ pelvic pain	Pelvic appendix.
Murphy	Fingers under right costal margin; inspire	Sudden "catch"/pain → patient stops inspirating	Acute cholecystitis; sonographic version parallels it.
Boas	Light touch under right scapula/RUQ	Hyperesthesia	Supportive of cholecystitis (low sensitivity).
Courvoisier's sign	Palpable, nontender GB + painless jaundice	Suggests malignant distal biliary obstruction > stone	Think pancreatic head/ampullary cancer.
Grey-Turner / Cullen / Fox	Inspect flanks / periumbilicus / along inguinal region or upper thigh	Flank / periumbilical / inguinal-thigh ecchymoses	Hemorrhagic pancreatitis or retroperitoneal bleed; poor prognostic signs.
Kehr	History/exam	Referred left shoulder pain, ↑ with inspiration	Splenic injury/peritoneal blood.

Sign/test	How to elicit	Positive finding	Usual implication
Ballance	Percuss flanks	Fixed dullness L, shifting dullness R	Splenic rupture/hemoperitoneum.
Carnett / Fothergill	Tender spot; tense abdomen (head/leg raise). If mass doesn't cross midline with tensing	Pain same/worse (Carnett) or mass fixed in rectus (Fothergill)	Abdominal wall source (e.g., rectus sheath hematoma) rather than visceral.

Mnemonic (appendix eponyms): **P-R-O-M-D** → *Psoas*, *Rovsing*, *Obturator*, *McBurney point tenderness*, *Dunphy*.

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3) Groin & hernia

Bedside feature	What to look for	Interpretation
Expansile cough impulse & reducibility	Swelling balloons on cough; reduces with pressure	Hernia (vs. hydrocele—usually no cough impulse; hydrocele often transilluminates).
Deep Ring Occlusion Test	Occlude deep ring (mid-inguinal point) while patient coughs	No impulse → indirect hernia; impulse persists → direct/other
Zieman three-finger test	Fingers over deep ring, superficial ring, saphenous opening; ask to cough	Localizes impulse to ring/region → maps likely hernia path

(These are bread-and-butter OSCE maneuvers for inguinal hernia differentiation.)

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4) Breast

Sign	Finding	Why it matters
Peau d'orange, skin dimpling, nipple retraction	Edema tethered by ligaments; traction signs	Invasive carcinoma until proven otherwise.
Paget's disease (nipple)	Eczematous nipple/areola ± discharge	Underlying DCIS/invasive cancer.
Troisier/Virchow node	Hard left supraclavicular node	Signals abdominal malignancy metastasis (stomach, pancreas, etc.).

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5) Neck & endocrine

Sign	How	Positive	Implication
Thyroid swelling moves with deglutition	Watch while swallowing	Up-down movement	Thyroid attachment to pretracheal fascia.
Thyroglossal duct cyst	Observe while **protruding tongue** and swallowing	Mass elevates	Pathognomonic movement due to hyoid/foramen cecum attachment.
Pemberton	Arms raised above head 1–2 min	Facial plethora, venous congestion, stridor	Thoracic inlet obstruction from large goiter.
Thyrotoxicosis eye signs	Dalrymple (lid retraction), von Graefe (lid lag), Stellwag (infrequent blinking), Möbius (poor convergence), Joffroy (no forehead creases on upgaze)	Exophthalmos complex of Graves' orbitopathy	Useful clues even before labs.

Sign	How	Positive	Implication
Post-thyroidectomy hypocalcemia	Chvostek (tap facial nerve) & **Trousseau** (BP cuff → carpopedal spasm)	Latent tetany	Treat calcium urgently.

6) Vascular & limb

Domain	Sign/test	Positive	Meaning
Acute limb ischemia	**6 P's** → Pain, Pallor, Pulselessness, Paresthesia, Paralysis, Poikilothermia	Any combination	Surgical emergency.
Peripheral arterial disease	**Buerger** (elevation pallor → dependency rubor), **ABI** (≤0.90), claudication	Objective ischemia	Plan imaging/revascularization.
Hand circulation	**Allen test**	Delayed refill of one side	Incomplete palmar arch—avoid arterial lines there.
Varicose veins physiology	**Brodie–Trendelenburg**, **Perthes**, **Schwartz tap**, **Fegan**	Map SFJ vs perforator incompetence; deep venous patency	Decides whether to ablate SFJ, perforators, or address DVT.
DVT caveat	**Homans** (dorsiflexion pain) is **unreliable**; use D-dimer + compression US	Low sensitivity/specificity	Don't "rule in/out" DVT by Homans alone.
Paraneoplastic clotting	**Trousseau sign of malignancy** (migratory thrombophlebitis)	Recurrent superficial thromboses	Often pancreatic/gastric/ lung cancers.

7) Urology

Sign	How	Positive	Meaning
Renal angle/CVA tenderness (Murphy's punch)	Gentle fist percussion over CVA	Sharp tenderness	Pyelonephritis, perinephric abscess, stone; specificity limited—use labs/US/CT.

8) Soft-tissue & skin lumps (handy spot diagnoses)

Lump	Bedside clue	Likely Dx
Lipoma	"Slip sign" (slides under finger), soft, lobulated	Lipoma
Sebaceous (epidermoid) cyst	Central punctum, doughy, non-compressible	Epithelial cyst
Cystic hygroma / Hydrocele	Positive transillumination	Lymphatic malformation / hydrocele
Neurofibroma	"Button-holing" into skin	Neurofibromatosis feature
Sister Mary Joseph nodule	Hard umbilical nodule	Metastatic intra-abdominal malignancy.

9) Peripheral nerve & hand (common clinic tests)

Test	Positive	Suggests
Tinel (tapping carpal tunnel)	Paresthesia in median distribution	Carpal tunnel (screen only).
Phalen (max wrist flexion 60 s)	Median paresthesia	Carpal tunnel (combine with exam/ENMG).
Froment (paper pinch)	Thumb IP flexion (compensatory)	Ulnar neuropathy (Adductor pollicis weakness).

10) Quick clinical algorithms

RUQ pain
→ Check **Murphy**.
• Positive + fever/leukocytosis → **Acute cholecystitis** → RUQ US (± sonographic Murphy).
• Painless jaundice + palpable GB → **Courvoisier** → image pancreas/ampulla.

Epigastric pain radiating to back
→ Serum lipase; look for **Cullen/Grey-Turner** (if present, think severe/hemorrhagic pancreatitis) → early resuscitation, CT if indicated.

RLQ pain
→ **P-R-O-M-D** battery (Psoas, Rovsing, Obturator, McBurney, Dunphy) + labs + imaging as needed.

Mnemonics you'll actually remember

- **Peritonitis**: **G-R-A-B** (Guarding, Rigidity, Absent bowel sounds, Blumberg).
- **Acute limb ischemia**: **6 P's**.
- **Cholecystitis trio**: **M-B-S** → *Murphy*, *Boas*, *(Sono)Murphy*.
- **Graves' eye**: **"DaRling Graefe Steals MoJo"** → **Da**lrymple (lid retraction), **R**etraction; **von Graefe** (lid lag), **Stellwag** (infrequent blink), **Mö**bius (poor convergence), **Jo**ffroy (no forehead creases).

OSCE tips (what examiners love)

- Say out loud what you're testing ("I'm eliciting rebound for peritoneal irritation").
- Always examine the **uninvolved** side first for abdominal tenderness.
- Document **how** you elicited each sign (e.g., "Murphy positive with abrupt inspiratory arrest under RUQ pressure").
- Eponyms support—not replace—reasoning; several signs (e.g., **Homans**) are historically taught but diagnostically weak, so pair with the right test (D-dimer + compression US for DVT).

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