GENERAL SURGERY CASE HISTORY & EXAMINATIONS

6 Compiled by: Dr. S.D.

Introduction:

- 1. These notes are designed as a concise yet comprehensive guide for medical students, interns, and junior residents in understanding the fundamentals of general surgical case taking and physical examination.
- 2. The material focuses on practical bedside approaches, common examination techniques, clinical tips, and structured history formats based on standard surgical textbooks and bedside practices.
- 3. The compilation reflects years of clinical experience and teaching in surgical departments, aiming to bridge the gap between theory and real-life ward work.
- 4. These notes serve as a quick reference tool and are not a substitute for thorough reading of standard textbooks or professional clinical training.

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Ulcer: History, Clinical Examination, Treatment, Ointments & Surgical Instruments

1. History of an Ulcer

- 1. **Onset & Duration** Acute or chronic? Sudden or gradual?
- 2. **Mode of Onset** Spontaneous, traumatic, or following an infection?
- 3. **Pain** Type (burning, throbbing, dull), severity, and relation to movement or pressure.
- 4. **Discharge** Serous, purulent, sanguineous, foul-smelling?
- 5. **Progression** Increasing or decreasing in size? Any history of recurrence?
- 6. **Previous Treatment** Medical or surgical interventions taken before.
- 7. **Systemic Symptoms** Fever, weight loss, night sweats (suggesting TB or malignancy).
- 8. **History of Trauma** Any injury, burns, or pressure sores.
- 9. **Medical History** Diabetes, tuberculosis, venous insufficiency, arterial disease, malignancy.
- 10. Family History Genetic conditions like epidermolysis bullosa, malignancy.
- 11. **Social History** Smoking, alcohol, occupation, hygiene status.
- 12. **Drug History** Steroids, anticoagulants, immunosuppressants.

2. Clinical Examination of an Ulcer

1. General Examination

- Vitals Temperature, pulse, BP, respiratory rate.
- Pallor, Icterus, Cyanosis, Clubbing, Lymphadenopathy Suggestive of systemic diseases.

2. Local Examination (S-SITE C-BASE E-EDGE F-FLOOR S-SURROUNDINGS)

A. Site & Size

- Measure in cm (length × breadth × depth).
- Common sites: Leg (venous ulcer), foot (diabetic ulcer), pressure areas (bedsores).

B. Shape

Round (arterial ulcer), irregular (malignant ulcer), punched out (trophic ulcer).

C. Edge

- Undermined Tuberculous ulcer.
- **Sloping** Healing ulcer.
- **Punched out** Syphilitic ulcer.
- Raised & Everted Malignant ulcer.

D. Floor

Presence of granulation tissue, slough, necrotic tissue, or exposed structures (bone, tendon).

E. Discharge

- Serous (clear), purulent (infected), sanguineous (bloody).
- Foul smell (anaerobic infection).

F. Surrounding Skin

- Hyperpigmentation (venous ulcer).
- Induration (chronic ulcer or malignancy).
- Redness, warmth (signs of infection).
- Loss of sensation (neuropathic ulcer).

3. Systemic Examination

- **Peripheral pulses** Absent in arterial ulcer.
- Venous insufficiency signs Varicose veins, edema.
- **Neurological examination** Sensory loss in diabetic neuropathy.

3. Investigations

- 1. **Blood Tests** CBC, ESR, CRP, blood sugar, HbA1c.
- 2. **Doppler Study** Arterial/venous insufficiency.
- 3. **Biopsy** If malignancy is suspected.
- 4. **Pus Culture & Sensitivity** If infection is present.
- 5. **X-ray/CT/MRI** If bone involvement is suspected (osteomyelitis).

4. Treatment of Ulcers

1. General Measures

- Wound care Cleaning with normal saline, avoiding harsh antiseptics.
- **Debridement** Removal of necrotic tissue (surgical, enzymatic, mechanical).
- Dressings -
 - Hydrocolloid/foam dressings for moist healing.
 - o Silver dressings for infected ulcers.
 - o Negative pressure wound therapy (vacuum-assisted closure).
- Pain Management NSAIDs or opioids if severe.
- **Antibiotics** Based on culture sensitivity in case of infection.

2. Specific Treatment Based on Type of Ulcer

A. Venous Ulcer

- Leg elevation to reduce venous hypertension.
- Compression therapy (graded compression stockings, Unna boot).
- Sclerotherapy or surgery for varicose veins if needed.

B. Arterial Ulcer

- Improve circulation Smoking cessation, exercise, and vasodilators.
- Angioplasty/bypass surgery if severe ischemia.

C. Diabetic Ulcer

- Good glycemic control (HbA1c <7%).
- Offloading pressure Specialized footwear, total contact casting.
- **Early infection control** Broad-spectrum antibiotics initially, then based on culture.

D. Pressure Ulcer

- Frequent repositioning (every 2 hours for bed-bound patients).
- Pressure-relieving devices (air mattresses, cushions).
- Nutritional support High-protein diet, vitamin C, zinc supplements.

E. Malignant Ulcer

- Wide local excision if operable.
- Radiotherapy or chemotherapy for inoperable cases.

3. Surgical Treatment

- Skin Grafting Split-thickness or full-thickness graft for large, non-healing ulcers.
- Flap Surgery If the ulcer is deep or involves vital structures.
- **Amputation** As a last resort in severe gangrene or infected ulcers.

5. Ointments Used in Ulcer Treatment

- 1. Silver Sulfadiazine (SSD) 1% Antimicrobial, used for burns & infected ulcers.
- 2. Mupirocin 2% (Bactroban) Covers MRSA infections.
- 3. **Metronidazole Gel** Used for anaerobic infections, foul-smelling ulcers.
- 4. **Povidone-Iodine Ointment** Broad-spectrum antiseptic.
- 5. **Hydrogel Dressings** Provides moisture for wound healing.
- 6. **Collagen-Based Dressings** Used for chronic ulcers to promote healing.
- 7. Growth Factor Ointments (Recombinant Epidermal Growth Factor EGF) Used in diabetic foot ulcers.

6. Surgical Instruments Used in Ulcer Management

1. Instruments for Wound Debridement

- Scalpel (No. 15, 22 Blade) Sharp debridement.
- Curette Scraping necrotic tissue.
- **Tissue Forceps (Adson, Toothed & Non-Toothed)** Handling tissues.
- **Dissecting Scissors (Metzenbaum, Mayo)** Cutting necrotic tissue.

2. Instruments for Biopsy

- **Punch Biopsy Set** Circular blade for small tissue samples.
- Excisional Biopsy Instruments Scalpel, forceps, sutures.

3. Instruments for Skin Grafting

- **Dermatome (Humby's Knife, Watson Knife)** Harvesting skin grafts.
- **Mesh Grafting Machine** Expanding skin grafts.

4. Instruments for Dressing & Wound Care

- Sterile Gauze & Cotton Swabs Wound cleaning.
- Syringe & Needles For irrigation and local anesthesia.
- **Bandage Scissors** Cutting dressings.

History and Clinical Examination of the Thyroid Gland (MBBS Level)

1. Patient's General Information (Personal Details)

ParameterDetailsName[Patient's Name]Age[Patient's Age]GenderMale/Female

Occupation[Patient's Occupation]Address[Patient's Address]Marital StatusSingle/MarriedReligion[Patient's Religion]

Date of Admission [Date] **Date of Examination** [Date]

2. Chief Complaints

- Swelling in the neck (Onset, Duration, Progression)
- Weight changes (Gain in hypothyroidism, Loss in hyperthyroidism)
- Changes in appetite (Increased in hyperthyroidism, Decreased in hypothyroidism)
- **Heat or cold intolerance** (Heat intolerance in hyperthyroidism, Cold intolerance in hypothyroidism)
- Palpitations and increased heart rate (Hyperthyroidism)
- Constipation/Diarrhea (Constipation in hypothyroidism, Diarrhea in hyperthyroidism)
- **Hoarseness of voice** (Due to thyroid enlargement)
- Fatigue, weakness, lethargy (More common in hypothyroidism)
- Tremors and nervousness (Seen in hyperthyroidism)
- **Menstrual irregularities** (Oligomenorrhea or amenorrhea in hyperthyroidism, Menorrhagia in hypothyroidism)
- **Skin and hair changes** (Dry skin, brittle hair in hypothyroidism; warm, moist skin in hyperthyroidism)
- **Sleep disturbances** (Insomnia in hyperthyroidism, Excessive sleepiness in hypothyroidism)
- **Difficulty swallowing or breathing** (In large goiters)

3. History of Present Illness

- Onset: Sudden or gradual
- **Duration:** Since how long the symptoms have been present
- **Progression:** Gradual increase/decrease in severity
- **Associated Symptoms:** Sweating, weight loss/gain, tremors, nervousness, menstrual irregularities, eye symptoms (exophthalmos)
- Relieving or Aggravating Factors: Medications, diet changes, stress
- Previous Similar Complaints: If any prior thyroid-related symptoms
- **Treatment History:** Any previous medication like levothyroxine, carbimazole, PTU, iodine therapy, or surgery

4. Past History

- Previous history of thyroid disorders
- History of radiation exposure to the neck
- Any previous thyroid surgery or medications taken for thyroid disorders
- Other autoimmune diseases (e.g., Type 1 Diabetes, Addison's disease)
- History of tuberculosis, sarcoidosis, or neck trauma

5. Family History

- **Any family history of thyroid disorders** (Hypothyroidism, hyperthyroidism, goiter, thyroid cancer)
- **Autoimmune diseases in the family** (e.g., Type 1 Diabetes, Rheumatoid Arthritis, Vitiligo)

6. Personal History

Parameter	Details	
Dietary Habits Vegetarian / Non-vegetarian, Iodine-rich diet (seafood, iodi		
Appetite	Increased (Hyperthyroidism) / Decreased (Hypothyroidism)	
Sleep Pattern	Insomnia (Hyperthyroidism) / Increased sleep (Hypothyroidism)	
Bowel Habits Diarrhea (Hyperthyroidism) / Constipation (Hypothyroidism)		
Bladder Habits	Normal / Increased frequency	
Addictions	Smoking, Alcohol, Tobacco	
Exercise Habits	Sedentary / Active	
Exposure to Radiation	Yes / No	

7. General Examination

- **Build & Nourishment:** Lean (Hyperthyroidism) / Obese (Hypothyroidism)
- **Pallor:** Present (Suggests anemia)
- Icterus: Present/Absent
- Cyanosis: Present/Absent
- Clubbing: Seen in thyroid acropachy
- Edema: Periorbital edema (Hypothyroidism)
- Lymphadenopathy: Check for any associated lymph node enlargement
- **Skin Changes:** Dry, coarse skin (Hypothyroidism) / Warm, moist skin (Hyperthyroidism)
- Hair Changes: Brittle hair in hypothyroidism, Fine silky hair in hyperthyroidism
- Nail Changes: Onycholysis (Hyperthyroidism)
- Eye Changes: Exophthalmos, Lid retraction, Lid lag (Hyperthyroidism)

Vitals

Parameter Findings	
Pulse Tachycardia (Hyperthyroidism) / Bradycardia (Hypothyro	
Blood Pressure Increased (Hyperthyroidism) / Normal or Low (Hypothyroi	
Respiratory Rate Normal / Increased if large goiter compresses trachea	
Temperature	Normal / Slightly elevated in Hyperthyroidism

8. Local Examination of Thyroid Gland

Inspection

- Neck Swelling: Present / Absent
- Shape, Size, and Symmetry: Diffuse or Nodular swelling
- Movement with Swallowing: Thyroid moves upwards with deglutition
- Surface: Smooth / Nodular
- Overlying Skin Changes: Redness, Ulceration, Dilated veins

Palpation

- **Temperature:** Warm (Hyperthyroidism) / Normal (Hypothyroidism)
- **Tenderness:** Present in thyroiditis
- Size & Consistency: Soft (Hyperthyroidism), Firm (Goiter), Hard (Malignancy)
- Surface: Smooth / Nodular
- Mobility: Moves with deglutition
- Thrill: Present in Grave's disease
- **Pemberton's Sign:** Checked for retrosternal goiter (Face congestion on raising arms)

Percussion

• **Dullness over Sternum:** Indicates Retrosternal Goiter

Auscultation

• Thyroid Bruit: Present in Hyperthyroidism (Grave's Disease)

9. Systemic Examination

Cardiovascular System

- Tachycardia, Palpitations (Hyperthyroidism)
- Bradycardia (Hypothyroidism)
- Atrial fibrillation in Hyperthyroidism

Respiratory System

• Stridor or Dyspnea (Large Goiter compressing Trachea)

Neuromuscular System

- Tremors (Hyperthyroidism)
- Proximal Muscle Weakness (Hyperthyroidism)
- Slow Reflexes (Hypothyroidism)

Gastrointestinal System

- Increased bowel sounds in hyperthyroidism
- Constipation in hypothyroidism

10. Investigations

Test	Findings	
Seriim SH	Decreased in Hyperthyroidism, Increased in Hypothyroidism	
Serum 13 14	Increased in Hyperthyroidism, Decreased in Hypothyroidism	
Thyroid Antibodies (Anti-TPO, Anti-TSH receptor)	Present in Autoimmune Thyroid Disease	
Thyroid Ultrasound	Detects Nodules, Cysts, Goiter	
FNAC (Fine Needle Aspiration Cytology)	For Thyroid Nodules	
Thyroid Scan (Iodine Uptake Scan)	Differentiates between Hot and Cold Nodules	

11. Provisional Diagnosis

- Hypothyroidism (Primary / Secondary)
- Hyperthyroidism (Graves' Disease, Toxic Multinodular Goiter)
- Thyroiditis (Subacute, Chronic)
- Thyroid Nodule / Malignancy

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CASE HISTORY OF A PATIENT WITH THYROID DISORDER

I. Patient's General Information

Parameter	Details	
Name	Mrs. Anjali Sharma	
Age	42 years	
Gender	Female	
Occupation	Teacher	
Address	New Delhi, India	
Marital Status	Married	
Religion	Hindu	
Date of Admission	04/03/2025	
Date of Examination	05/03/2025	

II. Chief Complaints (For the last 6 months)

- Swelling in the neck
- Fatigue and weakness
- Weight gain despite normal diet
- Dry skin and hair fall
- Cold intolerance
- Hoarseness of voice
- Constipation
- Puffiness of face and eyes

III. History of Present Illness

- The patient noticed a gradual swelling in the front of the neck 6 months ago.
- Associated with progressive weight gain (~6 kg in 6 months) despite normal appetite.
- Complains of generalized fatigue and excessive sleepiness.
- Developed constipation and hoarseness of voice over the past 3 months.
- No history of pain or tenderness over the swelling.
- No history of difficulty in breathing or swallowing.
- No history of tremors, palpitations, or heat intolerance.
- No history of recent infections or trauma.

IV. Past History

- No known history of similar thyroid complaints in the past.
- No history of radiation exposure to the neck.
- No history of tuberculosis, diabetes, or hypertension.
- No history of any thyroid surgery.
- No history of recent illness or fever.

V. Family History

- Mother had hypothyroidism.
- No family history of malignancy or autoimmune disorders.

VI. Personal History

Parameter	Details
Dietary Habits	Mixed diet, low in iodine-rich foods
Appetite	Normal
Sleep Pattern	Excessive sleepiness
Bowel Habits	Constipation
Bladder Habits	Normal
Addictions	None
Exercise Habits	Sedentary lifestyle
Radiation Exposure	None

VII. General Examination

• Appearance: Overweight, sluggish movements

Pallor: PresentIcterus: AbsentClubbing: Absent

• Edema: Periorbital edema present

Lymphadenopathy: AbsentSkin Changes: Dry, coarse skin

• Hair Changes: Brittle, excessive hair fall

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Vital Signs

Parameter	Findings	
Pulse	58 bpm (bradycardia)	
Blood Pressure	110/70 mmHg	
Respiratory Rate	14 breaths/min	
Temperature	Normal	

VIII. Local Examination of Thyroid Gland

Inspection

- Diffuse swelling in the anterior neck
- Moves with swallowing
- No overlying skin changes
- No visible pulsations

Palpation

- Temperature: NormalTenderness: Absent
- **Size:** Diffuse enlargement (~4x3 cm)
- Surface: SmoothConsistency: Firm
- Mobility: Moves with deglutition
- Thrill or Bruit: Absent

Percussion

• No retrosternal dullness

Auscultation

• No bruit heard

IX. Systemic Examination

Cardiovascular System

- Bradycardia noted
- No murmurs or additional heart sounds

Respiratory System

- Normal vesicular breath sounds
- No stridor or wheezing

Neuromuscular System

- Slow relaxing deep tendon reflexes
- No tremors or hyperreflexia
- Mild proximal muscle weakness

Gastrointestinal System

- Decreased bowel sounds
- Complains of chronic constipation

X. Provisional Diagnosis

Primary Hypothyroidism (Possibly Hashimoto's Thyroiditis)

XI. Investigations Ordered

Test	Expected Findings	
Serum TSH	Increased (Above normal)	
Serum T3, T4	Decreased	
Thyroid Antibodies (Anti-TPO, Anti-TG)	Positive (Suggests Hashimoto's Thyroiditis)	
Ultrasound Thyroid	Diffuse enlargement, heterogeneous echotexture	
Fine Needle Aspiration Cytology (FNAC)	If needed, to rule out malignancy	
Lipid Profile	Hypercholesterolemia	
CBC	Mild anemia	

XII. Final Diagnosis

Primary Hypothyroidism (Autoimmune - Hashimoto's Thyroiditis)

XIII. Treatment Plan

1. Medical Management:

- Levothyroxine 50-100 mcg/day, titrated based on TSH levels
- **Regular Monitoring:** TSH levels every 6-8 weeks initially, then every 6 months
- Symptomatic Treatment:
 - o For Constipation: High-fiber diet, hydration, mild laxatives
 - o For Dry Skin: Moisturizers
 - o For Fatigue: Vitamin D & Iron supplementation if deficient

2. Lifestyle Modifications:

- **Diet:** Iodine-rich foods, avoid excessive goitrogenic foods (cabbage, soy)
- Exercise: Moderate exercise to manage weight gain
- Regular Follow-up: Monitor symptoms and adjust medication

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HERNIA: BASIC & CLINICAL ANATOMY WITH TYPES & CLINICAL CASE ADDED WITH H/O & EXAMINATION OF HERNIA

I. BASIC ANATOMY OF HERNIA

1. Definition of Hernia

- **★** Hernia is the abnormal protrusion of an organ or tissue through a defect in the wall of its containing cavity.
- * Commonly occurs in the abdominal wall.

2. Layers of the Abdominal Wall (Important for Hernia Formation)

- Skin
- Superficial fascia (Fatty & membranous layers)
- Muscles (External oblique, internal oblique, transversus abdominis)
- Fascia transversalis
- Peritoneum

3. Hernial Sac & Its Components

- ✓ **Hernial Orifice:** Defect through which the hernia protrudes.
- ✓ **Hernial Sac:** Formed by peritoneum.
- Hernial Contents: Bowel, omentum, or fat.

4. Common Sites of Hernia Formation

- **Proin Region:** Inguinal & femoral hernias.
- ★ Umbilical Region: Umbilical & paraumbilical hernias.
- ★ Linea Alba & Linea Semilunaris: Epigastric & Spigelian hernias.
- ★ Previous Surgical Scars: Incisional hernias.
- **Diaphragm:** Hiatal & diaphragmatic hernias.

II. CLINICAL ANATOMY OF HERNIA

1. Inguinal Canal (Important for Inguinal Hernia)

- 📌 Extends from deep inguinal ring to superficial inguinal ring.
- ***** Contains:
 - Spermatic cord (males) / Round ligament (females).
 - Ilioinguinal nerve.
- Deep Ring Location: Above midpoint of the inguinal ligament.
- Superficial Ring Location: Above & medial to pubic tubercle.
- **Proposition of the Communication of the Communicat**
 - Weakness in the posterior wall of the inguinal canal → Indirect or direct inguinal hernia.
 - Defect at the deep ring → Indirect inguinal hernia.
 - Weakness in the Hasselbach's triangle → Direct inguinal hernia.

2. Hasselbach's Triangle (Direct Hernia Site)

- ***** Borders:
- ✓ **Medial:** Lateral border of rectus abdominis.
- ✓ **Inferior:** Inguinal ligament.
- Lateral: Inferior epigastric vessels.
- 📌 Significance:
 - Direct inguinal hernia occurs here due to weakness in the abdominal wall.

3. Clinical Examination Findings in Hernia

- Swelling increases on standing & coughing.
- Disappears on lying down (Reducible hernia).
- **Expansile cough impulse present.**
- **☑** Deep ring occlusion test helps differentiate indirect vs. direct inguinal hernia.

III. TYPES OF HERNIA

A. Abdominal Wall Hernias

□Inguinal Hernia (Most common - 80%)

- Indirect Inguinal Hernia: Through deep ring, lateral to inferior epigastric vessels.
- **Direct Inguinal Hernia:** Through Hasselbach's triangle, medial to inferior epigastric vessels.

DFemoral Hernia

- Below inguinal ligament, more common in females.
- Risk of **strangulation** is high.

EUmbilical & Paraumbilical Hernia

• Common in children & obese adults.

Epigastric Hernia

• Through linea alba, above umbilicus.

∑Spigelian Hernia

• Along semilunar line (between muscle layers).

□Incisional Hernia

• Through previous surgical scars.

B. Internal Hernias

□Hiatal Hernia: Stomach herniates through diaphragm into the thorax.

Diaphragmatic Hernia: Congenital defect in the diaphragm.

Dobturator Hernia: Rare, seen in elderly females, diagnosed late due to hidden location.

C. Special Types of Hernia

- \bigstar Richter's Hernia: Only part of the bowel wall is herniated \to High risk of strangulation.
- **Littre's Hernia:** Contains a Meckel's diverticulum.
- Amyand's Hernia: Contains appendix (May cause appendicitis).
- **Sliding Hernia:** Part of the hernia sac is formed by a viscus (colon/bladder).

IV. COMPLICATIONS OF HERNIA

⚠ **Irreducibility:** Cannot be pushed back.

⚠ Obstruction: Bowel inside hernia gets blocked.

 \triangle **Strangulation:** Blood supply is cut off \rightarrow Gangrene.

⚠ **Incarceration:** Hernia is stuck but not yet strangulated.

V. MANAGEMENT

***** Conservative:

- Hernia truss (temporary, not recommended for active individuals).
- Treat risk factors (chronic cough, constipation, obesity).
- **Surgical Treatment (Definitive)**
- **Lichtenstein Mesh Repair (Open Surgery)** → Gold standard for inguinal hernia.
- **Laparoscopic Hernia Repair** → Less pain, faster recovery.
- Emergency Surgery for Strangulation \rightarrow If bowel is gangrenous, resection required.

COMMON POINTS -

- ★ Hernia is a common surgical condition due to a weakness in the abdominal wall.
- ★ Inguinal hernia is the most common type (especially indirect type).
- ★ Surgical repair is the definitive treatment to prevent complications like strangulation.

HISTORY & CLINICAL EXAMINATION OF HERNIA

(Based on S. Das Clinical Surgery Book – Point Wise Format)

I. HISTORY TAKING IN HERNIA

1. Chief Complaints

- Swelling in the groin/abdominal wall (Duration & Progression).
- ✓ **Pain or Discomfort** (Aggravating & Relieving Factors).
- Any change in size on coughing/straining?
- History of reducibility (Swelling disappears on lying down?).
- Symptoms of Complications:
 - Sudden pain increase (Strangulation).
 - Nausea, vomiting, and constipation (Bowel Obstruction).

2. History of Present Illness

- **Onset:** Gradual or sudden?
- **Progression:** Increasing in size over time?
- **Relation with posture:** Increases on standing, decreases on lying?
- Any history of trauma or lifting heavy weights?
- Previous history of similar swelling or surgery in the region?

3. Past History

- Any previous abdominal surgery? (May indicate incisional hernia).
- ✓ History of chronic cough, constipation, or straining during micturition? (Risk factors).
- Any history of sudden severe pain/swelling? (Suggesting strangulation).

4. Family History

✓ Any family members with similar complaints? (Genetic predisposition to inguinal hernia).

5. Personal History

- **✓ Occupation:** Heavy weight lifting increases risk.
- ✓ Smoking History: Leads to chronic cough (Predisposing factor).
- ✓ Chronic Constipation/Straining: Common in hernia patients.

II. CLINICAL EXAMINATION

1. General Examination

- **Vitals:** BP, Pulse, Temperature. ■
- Signs of Anemia, Jaundice, Edema, Dehydration.
- Systemic Examination: To rule out underlying conditions.

2. Local Examination

A. Inspection

- Site: Groin (Inguinal/Femoral), Umbilical, Incisional, Epigastric, etc.
- Size & Shape: Round or oval swelling?
- **✓ Surface:** Smooth or irregular?
- Skin Over Swelling: Any redness or ulceration (Strangulation).
- **✓ Cough Impulse:** Swelling increases on coughing?

B. Palpation

- **Temperature:** Increased (If inflamed).
- **▼ Tenderness:** Pain present (Complicated hernia).
- **✓ Consistency:** Soft (Reducible) or Firm (Irreducible).
- ✓ Fluctuation Test: Hernias are usually not fluctuant.
- **Expansile Cough Impulse:** Confirms hernia.
- **▼ Reducibility:** If reducible, confirms hernia diagnosis.

C. Special Tests

1 Deep Ring Occlusion Test (To differentiate Direct vs Indirect Inguinal Hernia)

- Examiner presses the deep inguinal ring (Midpoint of the Inguinal ligament).
- Patient is asked to **cough**.
- If swelling does NOT reappear → Indirect Hernia (deep ring is occluded).
- If swelling still appears \rightarrow Direct Hernia (as it bypasses the deep ring).

2Ziemann's Test (Reducibility Test)

- Patient is asked to lie down.
- If hernia reduces, it is likely uncomplicated.
- If irreducible, may indicate strangulation or incarceration.

3 Ring Invagination Test (For Inguinal Hernia)

- Examiner inserts finger into the external inguinal ring.
- Patient is asked to cough.
- If impulse felt at the tip \rightarrow Indirect Hernia.
- If impulse felt on the side → Direct Hernia.

3. Examination of Inguinal Hernia (Commonest Type)

A. Indirect Inguinal Hernia

- More common in young adults & children.
- Originates from deep inguinal ring.
- **✓** Travels along the inguinal canal.
- May extend into the scrotum (in males).
- **V** Positive Deep Ring Occlusion Test.

B. Direct Inguinal Hernia

- Common in **elderly men** (weak posterior wall).
- Bulges through Hesselbach's Triangle.
- Remains in the inguinal region, does not descend into scrotum.
- **✓** Negative Deep Ring Occlusion Test.

4. Examination of Other Hernias

Type	Key Features	
Femoral Hernia Below the inguinal ligament, common in females, higher risk of strangulation.		
Umbilical Hernia	rnia Protrusion at umbilicus, common in children & cirrhosis patients.	
Incisional Hernia	Occurs at previous surgical scar site.	
Epigastric Hernia Midline swelling above the umbilicus.		

III. DIAGNOSIS

- **★** Final Diagnosis based on History & Clinical Examination:
 - Example: Right Indirect Inguinal Hernia with reducibility, expansile cough impulse.

IV. INVESTIGATIONS

- **★** To confirm diagnosis & plan treatment:
 - 1. Ultrasound Abdomen & Groin (To detect hernia contents).
 - 2. **X-ray Abdomen** (If bowel obstruction suspected).
 - 3. CT Scan (For Incisional Hernia).
 - 4. **Blood Tests** (Preoperative fitness).

V. MANAGEMENT PLAN

- A. Conservative Management (If Not Fit for Surgery)
- **✓ Truss Application** (Only if reducible & no complications).
- ✓ Lifestyle Modification: Avoid heavy lifting, treat chronic cough/constipation.
- **B. Surgical Management (Definitive Treatment)**
- ✓ Herniorrhaphy (Simple hernia repair).
- ✓ Hernioplasty (Mesh Repair for large defects).
- ✓ Laparoscopic Hernia Repair (Minimally invasive approach).

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VI. COMPLICATIONS TO WATCH FOR

- **★** Incarceration → Irreducible hernia without vascular compromise.
- \bigstar **Obstruction** \rightarrow Bowel trapped within hernia.
- **★ Strangulation** → **Surgical Emergency** (Severe pain, red & tender swelling).

SUMMARY TABLE

Feature	Direct Hernia	Indirect Hernia	Femoral Hernia
Age Group	Elderly	Young Adults/Children	Middle-Aged Women
Relation to Deep Ring	Medial	Lateral	Below Inguinal Ligament
Scrotal Involvement	No	Yes	No
Expansile Cough Impulse	Yes	Yes	Yes
Reducibility	Yes	Yes	Less Likely

CASE PRESENTATION OF INGUINAL HERNIA

(Based on S. Das Clinical Surgery Book – Detailed Format)

I. Patient Profile

✓ Name: Mr. XYZ ✓ Age: 55 years

Gender: Male

Occupation: Laborer (Heavy lifting involved)

✓ Address: [Patient's location]
✓ Date of Admission: [Date]

II. Chief Complaints

- ★ Swelling in the right groin for 2 years.
- ***** Swelling increases on standing, decreases on lying down.
- ★ Pain in swelling for the past 1 week.

III. History of Present Illness

- **♦ Onset:** Gradual onset 2 years ago.
- **Progression:** Initially small, has increased in size over time.
- **★** Swelling Characteristics:
 - Appears on standing/walking.
 - Disappears on lying down.
 - Increases with coughing & lifting weights.
 - Reduces spontaneously on pressing.

📌 Pain History:

- Mild dull aching pain for the past 1 week.
- Aggravated by prolonged standing.
- No sudden increase in pain (no signs of strangulation).

★ No History of:

- Sudden severe pain.
- Nausea, vomiting, or constipation (No bowel obstruction).
- Fever or redness over the swelling (No strangulation).

IV. Past History

- **★** No history of previous abdominal surgeries.
- **★** No previous similar swellings.
- 🖈 No history of chronic cough, constipation, or straining during urination.

V. Family History

★ No family history of hernia.

VI. Personal History

Diet: Normal.

Bowel & Bladder: Normal.

Smoking: Yes, since 20 years (Risk factor – Chronic cough).

Alcohol: Occasionally.

Possible cause).

VII. General Examination

♦ Vitals:

Blood Pressure: 126/80 mmHg
Pulse Rate: 76/min, Regular
Respiratory Rate: 18/min
Temperature: Afebrile

★ No pallor, icterus, cyanosis, lymphadenopathy, or pedal edema.

VIII. Local Examination (Groin Region)

1. Inspection

- Swelling present in the right inguinal region.
- Size: Approx. 5 x 3 cm.
- Shape: Oval.
- **✓ Surface:** Smooth.
- Skin over swelling: Normal (No redness or ulceration).
- Swelling increases on standing, decreases on lying down.
- **Expansile cough impulse present.**

2. Palpation

- ✓ Temperature: Normal (No inflammation).
- ✓ Tenderness: Mild pain on palpation.
- **✓** Consistency: Soft, compressible.
- Fluctuation Test: Not fluctuant (Hernias are not fluid-filled).
- **Expansile Cough Impulse: Present** (Confirms hernia).
- **Reducibility:** Swelling disappears on pressing (Reducible hernia).
- Deep Ring Occlusion Test:
 - Swelling disappears on occlusion of deep ring \rightarrow Indirect Hernia confirmed.

3. Percussion & Auscultation

Percussion: Resonant (Indicating bowel loops inside).

Auscultation: Bowel sounds heard over swelling.

IX. Differential Diagnosis

- Hydrocele (Does not reduce on lying down).
- Femoral Hernia (Lies below the inguinal ligament).
- Lipoma (No cough impulse, firm consistency).

X. Diagnosis

Right Indirect Inguinal Hernia (Reducible, Uncomplicated).

XI. Investigations

- ★ Ultrasound Groin Confirms hernia sac & contents.
- **Routine Blood Tests:** Pre-operative fitness.
- **X-ray Abdomen:** If obstruction suspected.

XII. Treatment Plan

A. Conservative Management (If Unfit for Surgery)

- ✓ Hernia Truss (Not recommended for young active patients).
- Avoid heavy lifting & chronic cough treatment.

B. Surgical Management (Definitive Treatment)

- ★ Lichtenstein Tension-Free Hernioplasty (Gold standard).
- ★ Laparoscopic Mesh Repair (For bilateral/recurrent hernias).

XIII. Prognosis & Follow-Up

- ✓ Patient educated about avoiding strain & lifting heavy weights.
- Advised regular follow-up post-surgery.

XIV. Conclusion

- * Right Indirect Inguinal Hernia diagnosed based on history & clinical examination.
- ★ Surgical Repair (Mesh Hernioplasty) is planned to prevent complications.

YEY POINTS

- **✓** Indirect inguinal hernia is more common in young males.
- Expansile cough impulse & reducibility are diagnostic signs.
- Deep ring occlusion test helps differentiate direct vs. indirect hernia.
- Surgical repair is the definitive treatment.

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Varicose Veins – History, Clinical Examination, Treatment & Surgical Instruments

(Reference: S. Das Clinical Surgery)P

1. History Taking

• Chief Complaints:

- o Swelling over legs (progressive, worse by evening).
- o Pain, heaviness, or aching sensation in legs.
- o Skin changes (pigmentation, ulcers).
- o History of bleeding from a vein.
- o History of trauma to the leg.

• Past Medical History:

- o Deep vein thrombosis (DVT).
- o Prior surgeries or injuries to the leg.
- o Family history of varicose veins.

• Occupational & Lifestyle History:

- o Prolonged standing (teachers, security guards, factory workers).
- Sedentary lifestyle.
- o Obesity.

• **Obstetric History** (in females):

- o Number of pregnancies (common in multiparous women).
- o Use of hormone therapy or contraceptive pills.

2. Clinical Examination

A. Inspection

- Patient is examined in **standing and supine positions**.
- Visible dilated, tortuous veins (usually in the great saphenous vein distribution).
- Skin changes:
 - o Hyperpigmentation (due to hemosiderin deposition).
 - o Lipodermatosclerosis (hard, woody skin due to chronic venous insufficiency).
 - o Venous ulcers (medial malleolus area).

B. Palpation

- Saphenofemoral junction (SFJ) reflux: Check at the saphenofemoral junction (2.5 cm below and lateral to the pubic tubercle).
- Saphenopopliteal junction reflux: Palpate in the popliteal fossa.
- Vein consistency: Soft or hard (indicating thrombosis).
- **Tenderness**: Suggests thrombophlebitis.

C. Special Tests

1. Trendelenburg Test:

- Assesses valvular incompetence at SFJ.
- o Steps:
 - 1. Patient lies down, leg elevated to empty veins.
 - 2. Tourniquet applied at SFJ.
 - 3. Patient stands up If veins fill rapidly, perforators are incompetent.

2. Perthes Test:

- Assesses deep venous patency.
- o Steps:
 - 1. Tourniquet applied at mid-thigh.
 - 2. Patient asked to walk.
 - 3. If varicosities empty \rightarrow Deep veins are patent.

3. Cough Impulse Test:

• Positive impulse at SFJ = Incompetent valve at SFJ.

4. Schwartz Test:

• Percussion over SFJ produces a palpable thrill at lower veins = Incompetent valves.

5. Morrissey's Test:

o Confirms SFJ incompetence by palpating a thrill on coughing.

6. **Doppler Ultrasound / Duplex Scan**:

o Confirms venous reflux and assesses deep venous patency.

3. Treatment

A. Conservative Management

- Lifestyle Modifications:
 - Avoid prolonged standing.
 - o Elevate legs while resting.
 - o Regular exercise (walking).
- Compression Therapy:
 - o Graduated compression stockings (Class II or III).
- Medications:
 - o Venoactive drugs (Diosmin, Horse chestnut extract).
 - o Pain relief (NSAIDs).

B. Minimally Invasive Treatment

- Sclerotherapy:
 - o Injection of sclerosant (polidocanol) into small varicose veins.
- Endovenous Ablation:
 - Endovenous Laser Ablation (EVLA)
 - o Radiofrequency Ablation (RFA)
 - Mechanochemical Ablation (MOCA)

C. Surgical Treatment

- Indications for Surgery:
 - o Large varicose veins with symptoms.
 - o Recurrent thrombophlebitis.
 - o Skin changes/ulcers.
 - o Bleeding varicosities.
- Types of Surgery:
 - 1. Trendelenburg's Operation (High Saphenous Ligation)
 - Ligation of the great saphenous vein at SFJ.
 - 2. Saphenous Stripping
 - Removal of the great saphenous vein using a stripping device.
 - 3. Ambulatory Phlebectomy
 - Removal of varicose veins through small incisions.
 - 4. Subfascial Endoscopic Perforator Surgery (SEPS)
 - For incompetent perforators.

4. Surgical Instruments for Varicose Vein Surgery

- 1. Scalpel (#11 or #15 blade) For making small incisions.
- 2. Venous Hook (Oesch Hook, Muller Hook) Used for vein avulsion.
- 3. **Vein Stripper** For stripping the great saphenous vein.
- 4. **Mosquito Forceps** For gentle dissection.
- 5. Curved Mayo Scissors For deep tissue dissection.
- 6. **Needle Holder & Sutures** For skin closure.
- 7. **Tourniquet** To reduce venous bleeding.
- 8. **Doppler Ultrasound Probe** Used intraoperatively to locate incompetent veins.

Clinical Case of Varicose Veins

Case Presentation

Patient Name: Mr. Ramesh Kumar

Age/Sex: 45-year-old male

Occupation: Security guard (standing for long hours)

Chief Complaint:

Progressive swelling and pain in the left leg for 5 years.
Worsening in the evening, relieved by elevating the leg.

• Recently noticed **skin darkening** and a **small ulcer** near the ankle.

History

Past Medical History:

• No history of deep vein thrombosis (DVT).

• No history of trauma or previous leg surgery.

Family History:

• Mother had varicose veins.

Lifestyle History:

- Stands for 8-10 hours daily.
- No history of smoking or alcohol consumption.

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Clinical Examination

Inspection:

- Dilated, tortuous veins along the medial aspect of the left leg.
- **Hyperpigmentation** near the medial malleolus.
- Venous ulcer $(3 \times 2 \text{ cm})$ present at the ankle, with yellowish discharge.

Palpation:

- No tenderness.
- Positive cough impulse at the saphenofemoral junction (SFJ incompetence).

Special Tests:

- Trendelenburg Test: Rapid filling of veins after releasing the tourniquet → Incompetent perforators.
- Doppler Ultrasound:
 - o Reflux in great saphenous vein (GSV).
 - o Deep veins patent (no DVT).

Diagnosis

☑ Primary Varicose Veins with Venous Ulcer (CEAP Classification: C6)

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Management Plan

- Conservative Treatment:
- Leg elevation while resting.
- Compression stockings (Class II).
- Analgesics (NSAIDs) for pain.
- **Diosmin** for venous tone improvement.
- **Daily wound care** for the ulcer.
- Definitive Treatment:
- Endovenous Laser Ablation (EVLA) Preferred for saphenous vein incompetence.
- **Surgery (Saphenous Stripping + Perforator Ligation)** If EVLA is unavailable.

Follow-up Plan

- **Review after 4 weeks** Monitor ulcer healing and symptoms.
- **Repeat Doppler Ultrasound** Post-surgical assessment.

Key Learning Points

- **✓ Long-standing occupations with prolonged standing** increase the risk.
- Skin changes & ulcer formation indicate chronic venous insufficiency.
- **✓** Compression therapy & leg elevation are essential first-line treatments.
- **EVLA & surgery** provide long-term relief for symptomatic cases.

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Examination of Swelling

1. Inspection (Look)

- Site: Anatomical location (e.g., neck, breast, groin, limb).
- **Size:** Approximate dimensions in cm.
- Shape: Spherical, oval, irregular.
- Surface: Smooth, nodular, irregular.
- Skin over the swelling: Normal, stretched, red, pigmented, ulcerated.
- Pulsations: Present or absent.
- Visible peristalsis: Seen in abdominal swellings like pyloric stenosis.

2. Palpation (Feel)

- **Temperature:** Increased in inflammatory swellings.
- Tenderness: Painful in infections, abscesses, or inflammatory swellings.
- Consistency:
 - o **Soft:** Lipoma, cyst, hematoma.
 - o Firm: Lymphadenopathy, fibroma, early-stage malignancies.
 - o Hard: Carcinoma, bone tumors.
- Fluctuation: Indicates fluid-filled swelling (cyst, abscess, hematoma).
- Transillumination:
 - o **Positive (glows under light):** Cystic swelling (hydrocele, sebaceous cyst).
 - o **Negative:** Solid or mixed consistency swelling.
- Compressibility: Seen in vascular lesions like hemangiomas.
- Mobility:
 - o Freely mobile: Lipoma, benign tumors.
 - o **Fixed:** Malignancies, deep tissue involvement.
- Bruit (on auscultation): Suggests vascular swelling (AV malformation, aneurysm).

3. Percussion

- **Dull note:** Solid swelling (tumor, abscess).
- **Resonant note:** Air-filled swelling (pneumatocele).

4. Systemic Examination

- Regional lymph node involvement (lymphadenopathy in malignancy, TB).
- **Distant metastases signs** (e.g., hepatosplenomegaly in malignancies).

III. CASE PRESENTATION – SOFT TISSUE SWELLING (LIPOMA)

A. General Information

• Patient Name: Mr. XYZ

• Age: 45 years

• Sex: Male

• Occupation: Office worker

• Address: [Confidential]

• **Hospital ID:** [Confidential]

• Date of Admission: [DD/MM/YYYY]

B. Chief Complaint

Painless swelling on the left forearm for 3 years.

C. History of Present Illness

- The patient first noticed a small, painless lump on the left forearm 3 years ago.
- The swelling **gradually increased in size** without pain or ulceration.
- No history of fever, trauma, weight loss, or loss of appetite.
- No associated **numbness or functional impairment** of the limb.

D. Past Medical & Surgical History

- No history of diabetes, tuberculosis, or malignancy.
- No history of prior surgeries or trauma.

E. Family History

• No history of **similar swellings** in family members.

F. General Examination

- Vital signs normal (BP: 120/80 mmHg, Pulse: 78/min, Afebrile).
- No pallor, icterus, cyanosis, clubbing, or pedal edema.

G. Local Examination

Inspection:

✓ Swelling in the **left forearm**, **3×4 cm**, smooth surface, normal skin color.

Palpation:

- Soft, non-tender, mobile swelling.
- **✓ Fluctuation test negative** (not fluid-filled).
- **✓ Transillumination test negative** (not cystic).

Percussion:

Dull note (soft tissue origin).

H. Provisional Diagnosis

★ Lipoma (Benign Fatty Tumor).

I. Differential Diagnosis

- 1. Sebaceous Cyst (if fluctuant).
- 2. Fibroma (if firm).
- 3. **Neurofibroma** (if associated with nerve involvement).

J. Investigations Ordered

- Ultrasound of swelling: Confirms lipomatous nature.
- MRI (if large or deep-seated): To rule out malignancy.
- FNAC (Fine Needle Aspiration Cytology): To confirm benign nature.

K. Final Diagnosis

★ Lipoma (Soft Tissue Benign Tumor).

L. Treatment Plan

- **Observation:** If small and asymptomatic.
- Surgical Excision: If large, growing, painful, or cosmetically unacceptable.

M. Prognosis & Follow-Up

- Excellent prognosis.
- Recurrence is rare unless infiltrating lipoma.

CASE PRESENTATION – MALIGNANT SWELLING (SOFT TISSUE SARCOMA)

I. GENERAL INFORMATION

• Patient Name: Mr. ABC

Age: 55 yearsSex: Male

Occupation: FarmerAddress: [Confidential]Hospital ID: [Confidential]

• Date of Admission: [DD/MM/YYYY]

II. CHIEF COMPLAINT

- Progressively enlarging swelling on the right thigh for 8 months.
- Pain and ulceration for the past 2 months.

III. HISTORY OF PRESENT ILLNESS

- The patient first noticed a **small lump on the right thigh** 8 months ago.
- The swelling **grew rapidly** over the last 6 months.
- Initially painless, but developed dull aching pain over time.
- The patient noticed skin ulceration and occasional bleeding.
- No history of fever, weight loss, or trauma.
- No history of similar swelling elsewhere.

IV. PAST MEDICAL & SURGICAL HISTORY

- No known history of diabetes, tuberculosis, or hypertension.
- No prior surgeries or trauma.

V. FAMILY HISTORY

• No family history of **soft tissue tumors or malignancy**.

VI. GENERAL EXAMINATION

- Vitals: BP 130/85 mmHg, Pulse 82/min, Afebrile.
- No pallor, icterus, cyanosis, clubbing, lymphadenopathy, or pedal edema.
- Systemic examination **normal**.

VII. LOCAL EXAMINATION

A. Inspection

- Swelling present on anteromedial aspect of the right thigh.
- ✓ Size: 10×8 cm.✓ Shape: Irregular.
- Skin: Ulcerated with areas of necrosis.
- Surface: Nodular, fixed, and irregular.

B. Palpation

- **✓ Temperature: Raised** (suggesting malignancy or infection).
- **Tenderness:** Present.
- Consistency: Hard (malignancy suspected).
- Fluctuation: Absent (not cystic).
- **✓ Transillumination: Negative** (solid swelling).
- **✓ Mobility: Fixed to underlying structures** (suggesting malignancy).
- Regional Lymph Nodes: Inguinal lymphadenopathy present (possible metastasis).

VIII. DIFFERENTIAL DIAGNOSIS

- 1. Soft Tissue Sarcoma (Malignant).
- 2. **Desmoid Tumor** (Fibromatosis).
- 3. Chronic Abscess (if pus formation was present).
- 4. Lipoma (if soft and mobile, but unlikely due to fixation and ulceration).

IX. INVESTIGATIONS

- Ultrasound & Doppler Study: To assess extent and vascularity.
- MRI of Thigh: To determine depth and soft tissue involvement.
- FNAC / Core Needle Biopsy: To confirm malignancy.
- Chest X-ray / CT Scan: To rule out lung metastasis.
- Blood Investigations: CBC, LFT, RFT, LDH (tumor marker).

X. FINAL DIAGNOSIS

★ Soft Tissue Sarcoma (High-Grade Malignancy).

XI. TREATMENT PLAN

- Wide Local Excision with Clear Margins (Mainstay of treatment).
- Radiotherapy (if tumor is large or unresectable).
- Chemotherapy (if metastasis is present).
- Regular Follow-up to detect recurrence/metastasis.

XII. PROGNOSIS & FOLLOW-UP

- Prognosis depends on tumor size, histological grade, and metastasis.
- Regular follow-up is needed to monitor recurrence.

CASE PRESENTATION – INFLAMMATORY SWELLING (ABSCESS)

I. GENERAL INFORMATION

• Patient Name: Ms. XYZ

Age: 30 yearsSex: Female

Occupation: HomemakerAddress: [Confidential]Hospital ID: [Confidential]

• Date of Admission: [DD/MM/YYYY]

II. CHIEF COMPLAINT

- Painful swelling in the axilla for 2 weeks.
- Fever for 5 days.

III. HISTORY OF PRESENT ILLNESS

- The patient noticed a small, painful lump in the left axilla 2 weeks ago.
- The swelling gradually increased in size.
- Associated with throbbing pain, redness, and warmth.
- Fever with chills for the last 5 days.
- No history of trauma, insect bite, or previous abscess.

IV. PAST MEDICAL & SURGICAL HISTORY

- No history of diabetes, tuberculosis, or immunosuppression.
- No previous history of similar swelling.

V. FAMILY HISTORY

• No significant family history.

VI. GENERAL EXAMINATION

- Vitals: BP 110/70 mmHg, Pulse 95/min, Febrile (101°F).
- Pallor Present (Suggests ongoing infection).
- No icterus, cyanosis, clubbing, lymphadenopathy, or edema.

VII. LOCAL EXAMINATION

A. Inspection

- Swelling in the **left axilla**, 4×3 cm, red and raised.
- **✓** Overlying **skin stretched and shiny**.

B. Palpation

- **✓ Temperature:** Raised.
- ✓ Tenderness: Present (severe).
- Consistency: Soft, fluctuant.
- ✓ Fluctuation Test: Positive (indicates pus collection).
- **✓ Transillumination Test:** Negative.
- **Regional Lymph Nodes:** Not enlarged.

VIII. DIFFERENTIAL DIAGNOSIS

- 1. Axillary Abscess (Most Likely).
- 2. Inflamed Lymph Node (Lymphadenitis).
- 3. Furuncle (Boil).

IX. INVESTIGATIONS

- Blood Tests: Raised WBC count (infection).
- Ultrasound: Confirms abscess with fluid collection.
- Pus Culture & Sensitivity: Identifies causative bacteria.
- **Blood Sugar Test:** To rule out diabetes (predisposing factor).

X. FINAL DIAGNOSIS

* Axillary Abscess (Likely Staphylococcal Infection).

XI. TREATMENT PLAN

- Incision & Drainage (I&D) with Proper Aseptic Measures.
- Antibiotics (Broad-Spectrum like Amoxicillin-Clavulanate).
- Pain Relief (NSAIDs like Ibuprofen).
- Warm Compresses for Comfort.
- Daily Dressing & Wound Care.

XII. PROGNOSIS & FOLLOW-UP

- Good prognosis with prompt treatment.
- **Recurrence possible** in diabetics or immunocompromised patients.
- Patient education on hygiene to prevent future infections.

SUMMARY OF ALL CASES

Case Type	Key Findings	Diagnosis	Treatment
Benign Swelling (Lipoma)	Soft, painless, mobile	II inoma	Conservative / Excision if needed
Malignant Swelling (Sarcoma)	ulcerated	Sarcoma	Surgery + Radiotherapy
Inflammatory Swelling (Abscess)	Painful, fluctuant, red	Abscess	Incision & Drainage + Antibiotics

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BREAST EXAMINATION & CASE HISTORY

(Based on S. Das Clinical Surgery) + ONE CLINICAL CASE ADDED FOR BETTER UNDERSTANDING

I. BREAST EXAMINATION – STEPWISE APPROACH

(According to S. Das Clinical Surgery)

1. History Taking

- Personal Details: Name, Age, Sex, Occupation, Address.
- **Chief Complaints:**
 - Lump in the breast (onset, duration, progression).
 - Pain in the breast (cyclical or non-cyclical).
 - Nipple discharge (bloody, serous, purulent).
 - Changes in breast size or shape.
 - Skin changes (ulceration, dimpling, peau d'orange).
 - **✓** Menstrual & Reproductive History:
 - Age at menarche and menopause.
 - Number of pregnancies, breastfeeding history.
 - Use of oral contraceptives or hormone replacement therapy (HRT).
 - Family History: Breast or ovarian cancer in close relatives.
 - **Past Medical & Surgical History:** Any previous breast lumps, surgeries, or radiation.

2. Inspection (Patient in Sitting Position)

- Compare both breasts for **symmetry**, **size**, **shape**, **and skin changes**.
- ✓ **Nipple & Areola:** Retraction, inversion, discharge, eczema, or ulceration.
- **✓** Skin Changes:
 - Dimpling (suggestive of malignancy).
 - Peau d'orange (orange peel appearance due to lymphatic obstruction).
 - Ulceration (advanced carcinoma).
 - **Axillary Swelling:** Suggestive of lymph node involvement.
 - **✓** Arm Position Movements:
 - Hands on hips: to check for fixation of lump to deep tissue.
 - Hands raised above head: to assess skin dimpling and asymmetry.

3. Palpation (Performed in Sitting & Supine Positions)

Breast Lump:

- Site (quadrant-based localization).
- Size, shape, surface, margin.
- Consistency (soft, firm, hard).
- Mobility (fixation to skin, muscle, or chest wall).
- Tenderness.
 - **✓** Nipple & Areola:
- Any masses, discharge, or retraction.
 - **✓** Axillary Lymph Nodes:
- Presence, size, consistency, mobility.
 - **✓** Supraclavicular & Cervical Nodes:
- Enlarged nodes suggest distant spread.

4. Examination in Supine Position

- **✓** Better assessment of deep lumps and mobility.
- **✓** Palpate all quadrants and the axillary tail.

Case Presentation: Breast Adenocarcinoma (Invasive Ductal Carcinoma)

I. GENERAL INFORMATION

• Patient Name: Mrs. XYZ

Age: 50 yearsGender: Female

Occupation: HousewifeAddress: [Confidential]Hospital ID: [Confidential]

• Date of Admission: [DD/MM/YYYY]

II. CHIEF COMPLAINTS

- Lump in the right breast for the past 3 months, progressively increasing in size.
- Mild pain over the lump, non-cyclical in nature.
- Nipple retraction noticed 1 month ago.
- No history of trauma, fever, or discharge from the nipple.

III. HISTORY OF PRESENT ILLNESS

- The patient was apparently well **3 months ago** when she **noticed a small lump** in the right breast.
- The lump was painless initially but gradually increased in size over time.
- She did not seek medical attention until she noticed **nipple retraction** a month ago.
- No history of redness, warmth, or pus discharge from the lump.
- No history of weight loss, loss of appetite, chronic cough, or bone pain (suggestive of metastasis).

IV. PAST MEDICAL & SURGICAL HISTORY

- No previous history of similar lumps or breast-related issues.
- No prior surgeries related to the breast.
- No known history of diabetes, hypertension, or tuberculosis.

V. FAMILY HISTORY

- Mother diagnosed with breast cancer at the age of 55 years (possibly hereditary).
- No history of ovarian cancer, colorectal cancer, or prostate cancer in the family.

VI. MENSTRUAL & REPRODUCTIVE HISTORY

- Menarche: 13 years
- **Menopause:** Attained at 48 years (postmenopausal for 2 years).
- Parity: G2P2 (Two full-term normal vaginal deliveries).
- **Breastfeeding:** Breastfed both children for at least 1 year.
- Oral Contraceptive Use: Not used
- Hormone Replacement Therapy (HRT): Not taken

VII. GENERAL PHYSICAL EXAMINATION

- **General condition:** Well-preserved, conscious, and cooperative.
- Built & Nutrition: Moderate
- Vital signs:
 - Pulse: 80 beats/min, regular
 Blood Pressure: 130/80 mmHg
 Respiratory Rate: 18 breaths/min
 - Temperature: Afebrile
- Pallor: AbsentIcterus: AbsentCyanosis: AbsentClubbing: Absent
- Lymphadenopathy: Axillary lymph nodes palpable
- Pedal edema: Absent

VIII. LOCAL BREAST EXAMINATION

A. Inspection (Patient in Sitting Position with Arms at Side, Arms Raised, and Hands on Hips):

- **Right breast lump visible** in the upper outer quadrant.
- Nipple retraction present.
- **✓** No visible ulceration or discharge.
- Skin over the lump appears puckered with peau d'orange (orange peel appearance).
- **✓** Both breasts asymmetric (right larger than left).

B. Palpation (Performed in Both Sitting & Supine Positions):

Lump Characteristics:

- Location: Right upper outer quadrant
- Size: 3 × 4 cmShape: IrregularConsistency: Firm
- Margins: **Ill-defined**
- Mobility: Fixed to underlying structures (pectoralis muscle involvement suspected)
- Tenderness: **Absent**

Axillary Lymph Nodes:

- Palpable in right axilla (3 nodes felt).
- Firm, mobile, and non-tender.

✓ Supraclavicular & Cervical Nodes:

• No palpable nodes detected.

IX. SYSTEMIC EXAMINATION

- **Respiratory System:** Normal breath sounds, no wheezing or crepitations.
- Cardiovascular System: S1, S2 normal, no murmurs.
- ✓ **Abdomen:** No hepatosplenomegaly, no palpable masses.
- Neurological System: Normal, no focal deficits.

X. PROVISIONAL DIAGNOSIS

★ Right Breast Malignancy (Suspected Invasive Ductal Carcinoma – Breast Adenocarcinoma)

XI. DIFFERENTIAL DIAGNOSIS

□Benign Breast Diseases (Less Likely)

- Fibroadenoma
- Fibrocystic Disease
- Breast Abscess (due to absence of signs of infection)

DOther Malignancies

- Inflammatory Breast Carcinoma
- Metastatic Deposits from Other Primary Tumors

XII. INVESTIGATIONS ORDERED

- Imaging Studies:
- **✓ Mammography:** Spiculated mass with microcalcifications (highly suspicious of malignancy).
- **Breast Ultrasound:** Irregular hypoechoic lesion with posterior shadowing.
- Tissue Diagnosis:
- Fine Needle Aspiration Cytology (FNAC): Suggestive of invasive ductal carcinoma.
- Core Needle Biopsy: Confirms moderately differentiated adenocarcinoma.
- Metastatic Workup:
- Chest X-ray: To rule out lung metastasis.
- ✓ Liver Ultrasound: To check for liver involvement.
- **✓ Bone Scan:** To check for bone metastases.
- Hormone Receptor Studies:
- **✓ Estrogen Receptor (ER)/Progesterone Receptor (PR) & HER2/neu Testing:** Determines further treatment strategy.

XIII. FINAL DIAGNOSIS

★ Right Breast Adenocarcinoma (Invasive Ductal Carcinoma, Moderately Differentiated, Stage IIb - T2N1M0)

XIV. TREATMENT PLAN

- Multimodal Approach Recommended
- 1. Surgical Management (Curative Approach)
- ✓ Modified Radical Mastectomy (MRM) if tumor is operable.
- Sentinel Lymph Node Biopsy (SLNB) / Axillary Lymph Node Dissection (ALND) if node involvement suspected.
- 2. Adjuvant Therapy (Post-Surgery)
- **Radiotherapy:** If tumor is large or lymph nodes involved.
- **Chemotherapy:**
 - For node-positive or aggressive tumors
 - Common drugs: Anthracyclines + Taxanes
 - **✓** Hormonal Therapy:
 - **If ER/PR positive:** Tamoxifen (pre-menopausal) or Aromatase Inhibitors (post-menopausal).
 - **✓** Targeted Therapy:
 - For HER2-positive tumors: Trastuzumab (Herceptin).
- 3. Palliative Care (For Advanced/Metastatic Cases)
 - Pain management, supportive therapy, and psychological counseling.

XV. PROGNOSIS & FOLLOW-UP

- Early-stage breast cancer has a good prognosis with 5-year survival rate >85%.
- Regular follow-ups required:
 - o 3-6 months for 2 years
 - Annually after 5 years

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Case History Taking - Mass Per Abdomen

1. Patient Profile

- Name
- Age
- Gender
- Occupation
- Address
- Socioeconomic status

2. Chief Complaints

- Mass in abdomen (Duration)
- Pain in abdomen (if present)
- Other symptoms (e.g., vomiting, constipation, fever)

3. History of Present Illness

Point	Details to Ask		
Duration	When was mass first noticed?		
Mode of onset	Sudden or gradual?		
Progression	Increasing in size? Stable?		
Pain	Presence, character (dull, sharp), relation to mass		
Movement	Does mass move with respiration?		
Associated symptoms	Nausea, vomiting, weight loss, fever, altered bowel/bladder habits		
Relation to meals	Especially for epigastric masses (gastric origin)		
Pressure effects	Urinary symptoms, bowel obstruction signs		

4. Past History

- Previous similar complaints
- Past surgeries (especially abdominal)
- History of trauma to abdomen
- History of tuberculosis
- History of malignancy
- Comorbidities (Diabetes, Hypertension)

5. Personal History

- Appetite
- Diet
- Bowel habits (Constipation, Diarrhea, Altered habits)
- Bladder habits (Urgency, Frequency, Retention)
- Sleep
- Addiction (Smoking, Alcohol)

6. Family History

- Tuberculosis
- Malignancy
- Familial polyposis, hereditary cancer syndromes

7. Menstrual and Obstetric History (in females)

- Menarche, Menstrual cycle regularity
- Last menstrual period (LMP)
- Obstetric history (number of pregnancies, deliveries)

Physical Examination

1. General Examination

Point	Details		
Vital signs	Pulse, BP, Temperature, Respiratory rate		
Pallor	Anemia (suggests malignancy, chronic disease)		
Icterus	Hepatobiliary involvement		
Lymphadenopathy	Especially cervical, axillary, inguinal nodes		
Edema	Pedal edema (suggests systemic illness)		
Dehydration	Especially in intestinal obstruction		

2. Abdominal Examination

a. Inspection

- Distension of abdomen
- Visible mass location, size, movement with respiration
- Skin changes (engorged veins, scars, pigmentation)
- Umbilicus displaced or normal
- Peristalsis visible?

b. Palpation

Characteristic	Details to Assess
Site	Quadrant or region involved
Size	Measure in centimeters
Shape	Oval, round, irregular
Surface	Smooth, nodular
Borders	Well-defined, ill-defined
Consistency	Soft, firm, hard, cystic
Tenderness	Present or absent
Mobility	Mobile, fixed to skin/muscle/underlying structures

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Characteristic	Details to Assess
Movement with respiration	Suggests connection to liver/spleen
Reducibility	Hernia possibility
Compressibility	Cystic lesions
Pulsations	Expansile (aneurysm) vs transmitted (over aorta)

c. Percussion

- Percussion note over mass (Dull/Resonant)
- Shifting dullness (ascites)
- Fluid thrill (tense ascites)

d. Auscultation

- Bowel sounds (hyperactive in obstruction)
- Bruits over mass (suggests vascular origin)

3. Other Systemic Examination

- Respiratory system (metastasis signs)
- Cardiovascular system
- Central nervous system if necessary

Provisional Diagnosis

• Based on history and examination — formulate likely cause.

Differential Diagnosis

Mass Region	Common Differentials		
Right hypochondrium	Hepatomegaly, gallbladder mass		
Epigastric	Pancreatic mass, gastric tumor		
Umbilical	Omental cyst, hernia		
Left hypochondrium	Splenomegaly		
Right iliac fossa	Appendicular mass, ileocecal tuberculosis		
Hypogastrium	Bladder distension, uterine fibroid		
Left iliac fossa	Diverticular abscess, sigmoid mass		

Investigations (only if asked later in case workup)

- Hemogram, Liver function tests, Kidney function tests
- Ultrasonography (USG) Abdomen
- Contrast-enhanced CT scan (CECT) Abdomen
- Tumor markers if malignancy suspected (e.g., CA 125, CEA)

ONE CASE PERFORMA ON MASS PER ABDOMEN

Summary of case -

Mr. Ramesh Kumar, a 52-year-old male, presents with a gradually increasing mass in the right iliac fossa for 2 months, mild pain, no bowel obstruction. Examination reveals a firm, non-reducible, mildly tender mass. Provisional diagnosis is appendicular mass, with differentials including ileocaecal TB and carcinoma caecum.

Case History – Mass Per Abdomen

1. Patient Profile

Name: Mr. Ramesh Kumar

Age: 52 yearsGender: Male

• Occupation: Farmer

• Address: Rural area, Uttar Pradesh

Socioeconomic status: Lower-middle class

2. Chief Complaints

- Mass in the right lower abdomen for 2 months
- Mild dull aching pain over mass for 15 days

3. History of Present Illness

Point	Details		
Duration	Mass noticed 2 months ago		
Mode of onset	Gradual		
Progression	Slowly increasing in size		
Pain	Dull aching, localized to mass, mild, continuous		
Movement	Mass remains stationary during respiration		
Associated symptoms	Loss of appetite, no vomiting, no altered bowel habits		
Relation to meals	No relation with food intake		
Pressure effects	None reported (no urinary or bowel obstruction symptoms)		

4. Past History

- No history of similar complaints previously
- No history of abdominal trauma
- No history of tuberculosis or malignancy
- No known comorbidities

5. Personal History

- Appetite: DecreasedBowel habits: NormalBladder habits: Normal
- Sleep: Disturbed due to mild discomfort
- Addictions: Chronic smoker (20 pack-years), occasional alcohol

6. Family History

• No family history of tuberculosis, cancer, or similar abdominal masses

7. Menstrual/Obstetric History

Not applicable (male patient)



Physical Examination

1. General Examination

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Pulse: 86/min, BP: 128/82 mmHg

No pallor, icterus, cyanosis, clubbing, edema

No palpable lymphadenopathy

2. Abdominal Examination

a. Inspection

- Abdomen flat, symmetrical
- Mass visible in right iliac fossa (\sim 6 cm \times 5 cm)
- No visible peristalsis or venous engorgement
- Umbilicus normal

b. Palpation

Finding	Details
Site	Right iliac fossa
Size	Approximately 6 × 5 cm
Shape	Oval
Surface	Smooth
Borders	Well-defined
Consistency	Firm
Tenderness	Mild tenderness
Mobility	Slightly mobile in horizontal direction
Movement with respiration	No movement
Pulsation	Absent
Reducibility	Not reducible

c. Percussion

- Dullness over mass
- No shifting dullness

d. Auscultation

- Bowel sounds normal
- No bruits heard over the mass

3. Other Systems

• Respiratory, Cardiovascular, CNS: Normal

Provisional Diagnosis

Appendicular mass (likely organized appendicular lump)

Differential Diagnosis

Differential	Reason
Appendicular mass	Site, consistency, gradual onset
Ileocaecal tuberculosis	Chronicity, mild systemic symptoms (appetite loss)
Carcinoma caecum	In older age group, but no weight loss, bleeding

Suggested Investigations

- CBC (look for anemia, infection)
- ESR (may be raised in TB)
- Abdominal Ultrasound
- CECT Abdomen
- Colonoscopy (if needed)
- Mantoux test / Chest X-ray (for TB workup)

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Case History Taking - Pleomorphic Adenoma

[Patient Name], a [Age]-year-old [Gender], presented with a slow-growing, painless, firm mass in the right parotid region for [X] months. Examination revealed a firm, mobile, non-tender swelling without facial nerve involvement. Provisional diagnosis of **Pleomorphic adenoma** was made. FNAC advised for confirmation. Treatment planned as **superficial parotidectomy** with facial nerve preservation.

Case History – Pleomorphic Adenoma (Surgical Case)

1. Patient Profile

- Name: [Patient Name]
- Age: [Age]
- Gender: [Gender]
- Occupation: [Occupation]
- Address: [Address]
- Socioeconomic status: [Status]

2. Chief Complaints

• Swelling in the parotid region (Duration)

3. History of Present Illness

Point	Details to Ask
Onset	When was the swelling first noticed?
Progression	Gradual or rapid?
Pain	Painful or painless swelling? (typically painless in pleomorphic adenoma)
Size changes	Slow, progressive increase in size
Associated symptoms	Difficulty in mouth opening, facial weakness (rule out malignancy)
Discharge	Any discharge from swelling (suggests fistula, not common in pleomorphic adenoma)
Constitutional symptoms	Fever, weight loss, loss of appetite (suggest malignancy if present)

4. Past History

- Any history of previous similar swelling?
- Past surgeries in the head and neck region?
- History of radiation exposure?
- History of trauma?

5. Personal History

- Appetite: Normal/Decreased
- Sleep: Normal/Disturbed
- Habits: Smoking, Alcohol consumption (important for malignancy risk)

6. Family History

- Similar complaints in family?
- History of malignancy in family?

Physical Examination

1. General Examination

Point	Details
Vital signs	Pulse, BP, Temperature, Respiratory rate
Pallor	Presence of anemia
Lymphadenopathy	Palpate cervical lymph nodes
Edema, clubbing, cyanosis	Look for systemic illness

2. Local Examination (Parotid/Salivary Region)

a. Inspection

Finding	Details
Site	Preauricular (typically parotid region)
Size	Measure in cm
Shape	Oval/Round
Skin changes	Normal, stretched, shiny, ulcerated
Overlying veins	Usually not prominent
Movement with deglutition	Not moving (parotid swelling usually doesn't move with swallowing)
Movement with tongue protrusion	No movement (rules out submandibular swelling)

b. Palpation

Finding	Details
Temperature	Normal
Tenderness	Usually non-tender
Size	Confirm inspection findings
Surface	Smooth or bosselated

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Finding	Details
Borders	Well-defined
Consistency	Firm, rubbery
Mobility	Mobile in early stages; fixed if deep lobe/malignancy
Fluctuation	Absent (solid tumor)
Compressibility	Absent
Pulsations	Absent
Fixity	Not fixed to overlying skin or underlying structures
Facial nerve function	Test all branches for facial movements (very important to rule out nerve involvement)

c. Facial Nerve Examination

Check 5 branches of facial nerve:

- Temporal (raise eyebrows)
- Zygomatic (close eyes tightly)
- Buccal (blow cheeks)
- Marginal mandibular (show teeth)
- Cervical (tighten neck muscles)

Important: Weakness suggests malignant transformation.

3. Systemic Examination

• Respiratory, Cardiovascular, CNS: Normal

Provisional Diagnosis

Pleomorphic adenoma of the superficial lobe of the parotid gland

Differential Diagnosis

Differential	Reason
Pleomorphic adenoma	Most common parotid benign tumor
Warthin's tumor	Painless, often in elderly males, bilateral
Parotid cyst	Fluctuant swelling
Malignant salivary tumor	Rapid growth, pain, facial nerve palsy

Suggested Investigations

Investigation	Purpose
FNAC (Fine Needle Aspiration Cytology)	Confirms pleomorphic adenoma diagnosis
Ultrasound neck	Assesses size, vascularity
MRI face	Defines extent, deep lobe involvement
CECT face	Useful if malignancy suspected
Routine blood investigations	Preoperative fitness

Treatment Plan

- Surgical excision (Superficial parotidectomy) is the treatment of choice.
- Preservation of facial nerve during surgery is critical.

CASE – Pleomorphic Adenoma(Sample Case Presentation)

1. Patient Profile

Name: Mr. Sunil Sharma

Age: 46 yearsGender: Male

• Occupation: Shopkeeper

Address: Lucknow, Uttar PradeshSocioeconomic status: Middle class

2. Chief Complaints

• Swelling in the right side of the face (near ear) for 8 months

3. History of Present Illness

Point	Details
Onset	Gradual onset 8 months ago
Progression	Slowly progressive in size
Pain	Painless swelling
Other symptoms	No difficulty in mouth opening, no facial weakness, no discharge
Constitutional symptoms	No fever, no weight loss, no loss of appetite

4. Past History

- No previous history of similar swelling
- No history of surgery, radiation exposure, or trauma

5. Personal History

Appetite: NormalSleep: Normal

• Bowel and bladder habits: Normal

• Addictions: Smokes 5 cigarettes/day for 20 years

6. Family History

- No similar illness in family
- No family history of cancer

Physical Examination

1. General Examination

Findings
Pulse: 84/min
BP: 126/80 mmHg
No pallor, icterus, cyanosis, clubbing, edema
No cervical lymphadenopathy

2. Local Examination

a. Inspection

- Swelling present in right preauricular region
- Size approximately 4 × 3 cm
- Oval in shape
- Skin over swelling normal, no redness or ulceration
- No visible pulsations or venous prominence
- No movement of swelling with swallowing or tongue protrusion

b. Palpation

Finding	Details
Temperature	Normal
Tenderness	Absent
Surface	Smooth
Borders	Well-defined
Consistency	Firm
Mobility	Mobile horizontally, limited vertically
Skin over swelling	Free, not adherent
Fixity	Not fixed to underlying structures
Fluctuation	Absent
Compressibility	Absent
Pulsation	Absent

c. Facial Nerve Examination

- No weakness of facial nerve branches:
 - Able to raise eyebrows, close eyes tightly, blow cheeks, smile, tighten neck muscles normally.

3. Systemic Examination

• Respiratory, Cardiovascular, CNS: Normal

Provisional Diagnosis

Pleomorphic adenoma of the right parotid gland (superficial lobe)

Differential Diagnosis

Differential	Reason
Pleomorphic adenoma	Most common benign parotid tumor, painless, slow-growing
Warthin's tumor	Bilateral possibility, but less likely here
Parotid cyst	Would have fluctuation (absent here)
Low-grade parotid malignancy	No pain, no facial nerve involvement here, so less likely

Suggested Investigations

Investigation	Purpose
FNAC	Confirm pleomorphic adenoma
Ultrasound neck	Assess size, vascularity
MRI Face	For deep lobe involvement if suspected
CBC, Blood sugars, LFTs	Routine preoperative workup

Treatment Plan

- Superficial parotidectomy
- Careful dissection to **preserve facial nerve** branches

Mr. Sunil Sharma, a 46-year-old male, presented with a painless, slow-growing, firm swelling over the right preauricular area for 8 months. No facial nerve involvement was noted. Examination suggests **pleomorphic adenoma** of the right parotid gland (superficial lobe). FNAC planned for confirmation. Treatment is **superficial parotidectomy with facial nerve preservation**.

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