Case 1 – Identify the organ. Describe the normal histology (low power)

Case 1 high power. Describe the normal histology.
Case 1 Name the organ. Describe the normal histology (low power)

Case 1 Describe the normal histology (high power)

Case 2

**HISTORY:** A 32-year-old previously healthy man presents with a painless mass in his left testicle. He noticed it about 1 month ago. It was not getting smaller so he sought medical attention.

**VITAL SIGNS:** 135/80 HR 80 RR 15 T 98°

**PHYSICAL EXAMINATION:** Palpable, mobile 3 cm non-tender mass is present in the left testicle. Exam is otherwise unremarkable. There is no inguinal lymphadenopathy.
Case 2
What is the main clinical problem?
Develop a differential diagnosis.

Case 2

LAB TESTS
Chest X-ray is normal
Serum AFP and HCG are normal

Case 2 Describe gross findings
Case 2 Describe the low power findings

Case 2 - Describe the findings on 20x

Case 2 – Describe the high power findings
Case 2

What is your diagnosis?

Summarize the patient’s prognosis based on the given data.

Case 3

**HISTORY:** 67-year-old man has nocturia, urinary hesitancy (difficulty in starting and stopping urine flow), “weak” urine stream, and dribbling at the end of urination.

**PHYSICAL EXAMINATION:** On digital rectal exam the prostate gland is enlarged and non-tender. There are no palpable masses.

Case 3

What is your differential diagnosis?
Case 3

LAB TESTS:
Prostate specific antigen (PSA) is within normal limits for a man this age.

Case 3 Describe the gross findings

Case 3 Describe the low power findings.
Compare to normal
Case 3  Describe the findings on high power

Case 3  What is your diagnosis?

Case 3  What problems may the patient develop as a result of this process?
Case 3 – Describe the pathology depicted on the CT scan and gross image

Case 4

**HISTORY**: A 72-year-old man presents with back pain. It is constant and exacerbated by movement. The pain often keeps him up at night.

**PHYSICAL EXAMINATION**: There is tenderness over the lower spine. Neurologic exam is normal. A single, hard prostate nodule is palpated on digital rectal exam. No lymphadenopathy is noted.

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Case 4

Develop a problem list.

Develop a differential diagnosis for each problem.

Could the problems be related?
Case 4

**LAB TESTS:**

PSA 353.46 H (0.0 - 4.0 NG/ML)

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Case 4  Describe the gross findings

---

Case 4  Describe the low power findings. Compare to normal

---
Case 4 Describe the high power findings.
Compare to normal

Case 4
What is your diagnosis?

Case 4 – What is depicted in this image?
Case 4

What is a Gleason grade?

What is a Gleason score?

What is their clinical significance?

Case 4 Describe the radiographic and gross findings. Correlate with the clinical and pathologic findings of the prostate in this case.

Case 5

Name the organ

Describe the gross and low power microscopic findings.
Case 5 Describe the high power findings

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Case 5 continued

**CHIEF COMPLAINT:** “I have a lump in my neck”

**HISTORY:** The patient is a 42-year-old woman who noticed a painless lump in her neck about a month ago. It has not seemed to increase or decrease in size.

- She has no chronic medical problems and has had no surgeries.
- She takes no medications.
- Her father and mother are alive and well. She is an only child.
- She has no diarrhea or constipation, no heat or cold intolerance, stable weight, no change in skin or hair texture.

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Case 5

**PHYSICAL EXAMINATION:**

A painless 3cm mass is palpated in the left neck. The mass moves when the patient swallows and seems contiguous with the thyroid gland. The remainder of the thyroid gland is normal. There is no cervical or supraclavicular lymphadenopathy. The remainder of the physical exam is unremarkable.
Case 5
What is the main clinical problem?

Develop a differential diagnosis for this problem.

Case 5
Based on the given data, is the patient clinically euthyroid, hyperthyroid, or hypothyroid?

Case 5 Lab Data
TSH 1.2 (0.4-4.4 uu/mL)
The patient underwent a fine needle aspiration biopsy of the thyroid nodule. The cytologic diagnosis “Follicular Neoplasm” was rendered. Describe the implications of this diagnosis (ie what is the differential diagnosis?)
Case 5

Describe the low power findings.

Case 5

Describe the high power findings. Compare to normal.

Case 5

The pathologist extensively sample the lesion and on microscopic examination found no evidence of capsule or vascular invasion. What is your diagnosis?
Case 5

Correlate the clinical, laboratory and radiologic findings with the pathology.

Case 6

**CHIEF COMPLAINT**: Routine physical.

**HISTORY**: 55-year-old woman presents for an annual physical exam. She feels well and has no concerns except that perhaps her cholesterol might be high due to dietary indiscretion.
She has no chronic medical problems and has had no surgeries.
She takes no medications.
She is adopted and does not know of her family history.

**PHYSICAL EXAMINATION**:
A painless 2.5 cm nodule is palpated in the left thyroid gland. There is an enlarged, nontender 2 cm left cervical lymph node.
Exam is otherwise unremarkable.
Case 6

What is the main clinical problem?
Develop a differential diagnosis.

Case 6 Diagnostic work-up

- Normal TSH
- “Cold” thyroid nodule on iodine uptake scan
- FNA is performed

- Results of above lead to Thyroidectomy

Case 6 Describe the gross findings
Case 6 Describe the low power findings

Case 6 Describe the high power findings

Case 6 - Describe the findings
Case 6

What is your diagnosis?

What is the patient’s prognosis?

Case 7

CHIEF COMPLAINT: “I’ve been feeling tired and cold all the time”

HISTORY: 60-year-old previously healthy woman presents with fatigue and cold intolerance. She has had about 10 pound weight gain over the past 6 months which she attributes to inactivity. She is being treated for hypertriglyceridemia with gemfibrozil. She started taking laxatives about 3 months ago for constipation. She does not smoke or drink alcohol.

Case 7

PHYSICAL EXAMINATION:
Alert and oriented
Pulse 61, BP 150/90
Thyroid gland is diffusely enlarged. No nodules are palpated. No cervical LAD is present.
Lung, heart, and abdominal exams are unremarkable.
Case 7

Develop a problem list.

Case 7 Diagnostic evaluation

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Normal Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSH</td>
<td>21.2</td>
<td>(0.4-4.4 uu/mL)</td>
</tr>
<tr>
<td>Free T4</td>
<td>0.4</td>
<td>(0.8-1.7 ng/dL)</td>
</tr>
</tbody>
</table>

Case 7

What are potential etiologies of the patient’s condition?
Case 7 Describe the organs. Which one is normal?

Case 7 Describe the low power findings.

Case 7 Describe the high power findings. Compare to normal
## Case 7

What is your diagnosis?

Correlate the clinical and laboratory findings with the pathology.

Summarize the pathogenesis of this disease process