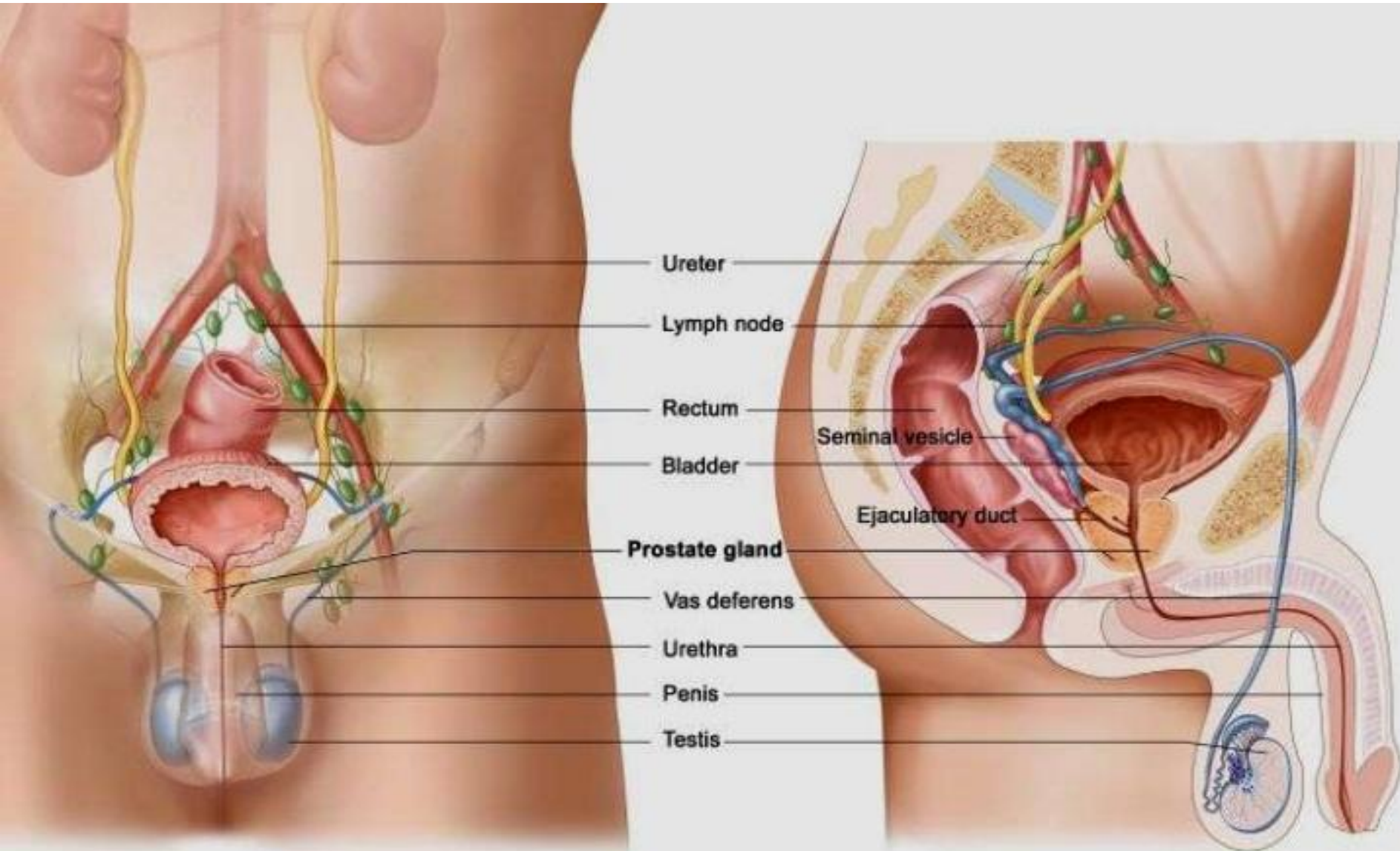


Рак мочевого пузыря

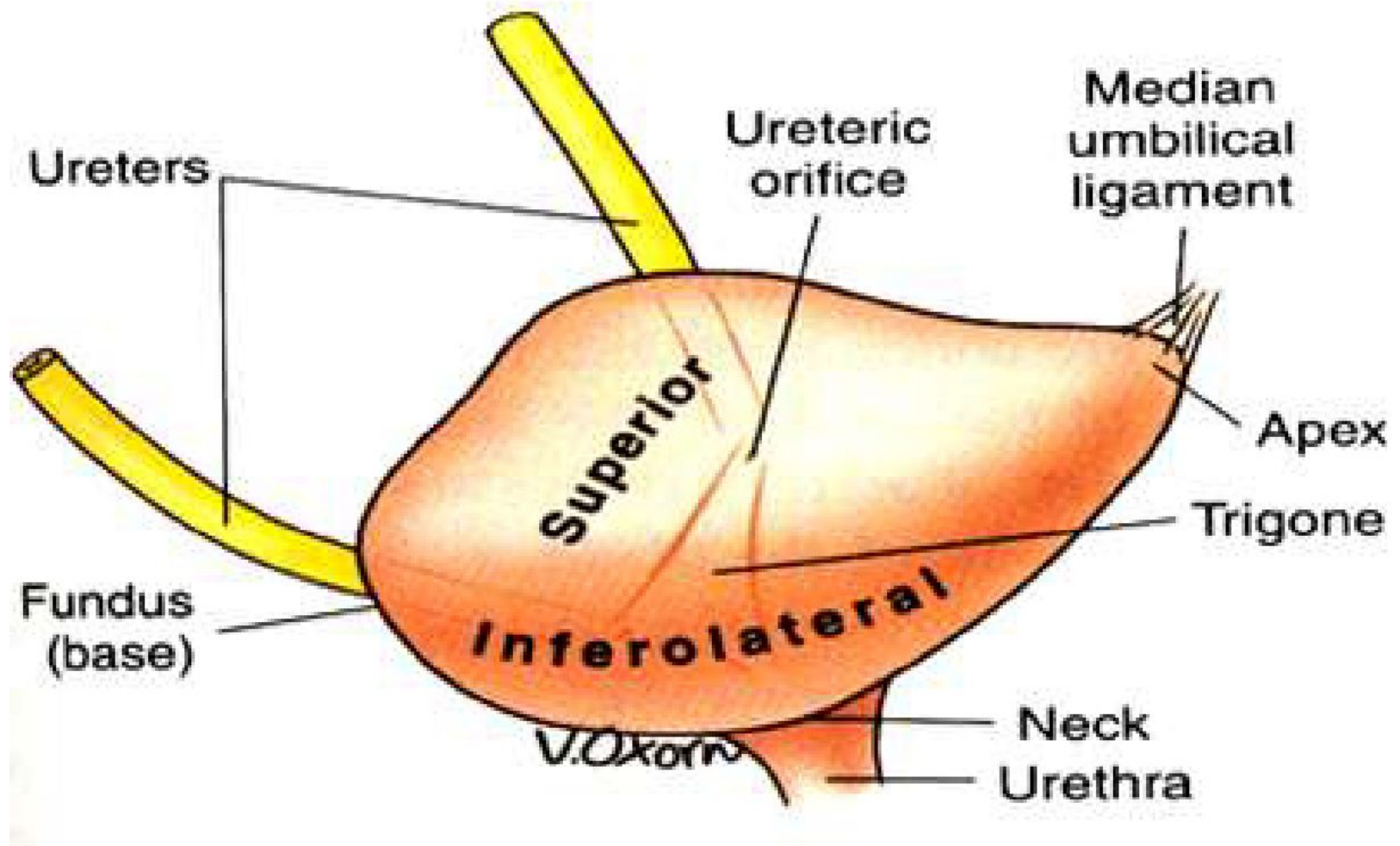
Муканова Балжан

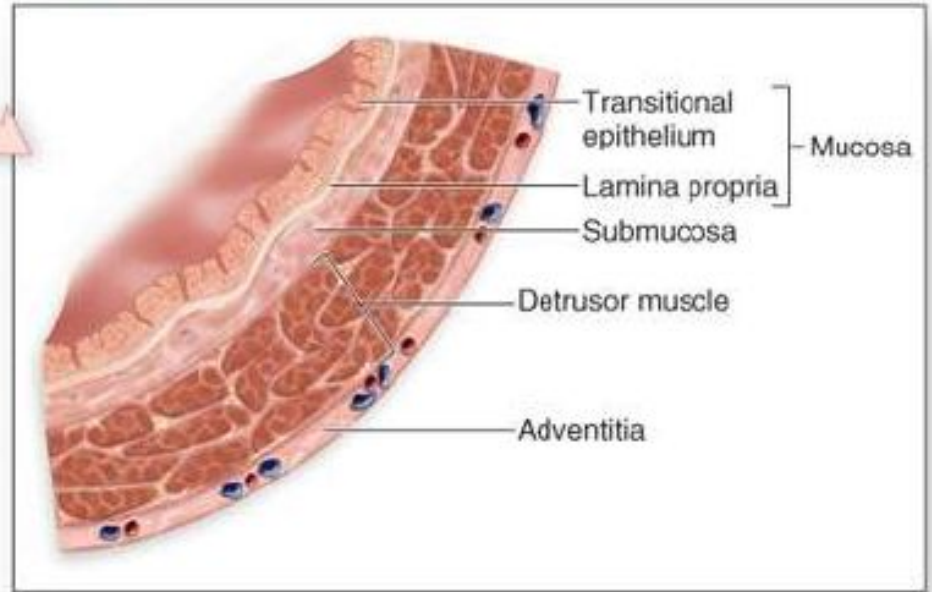
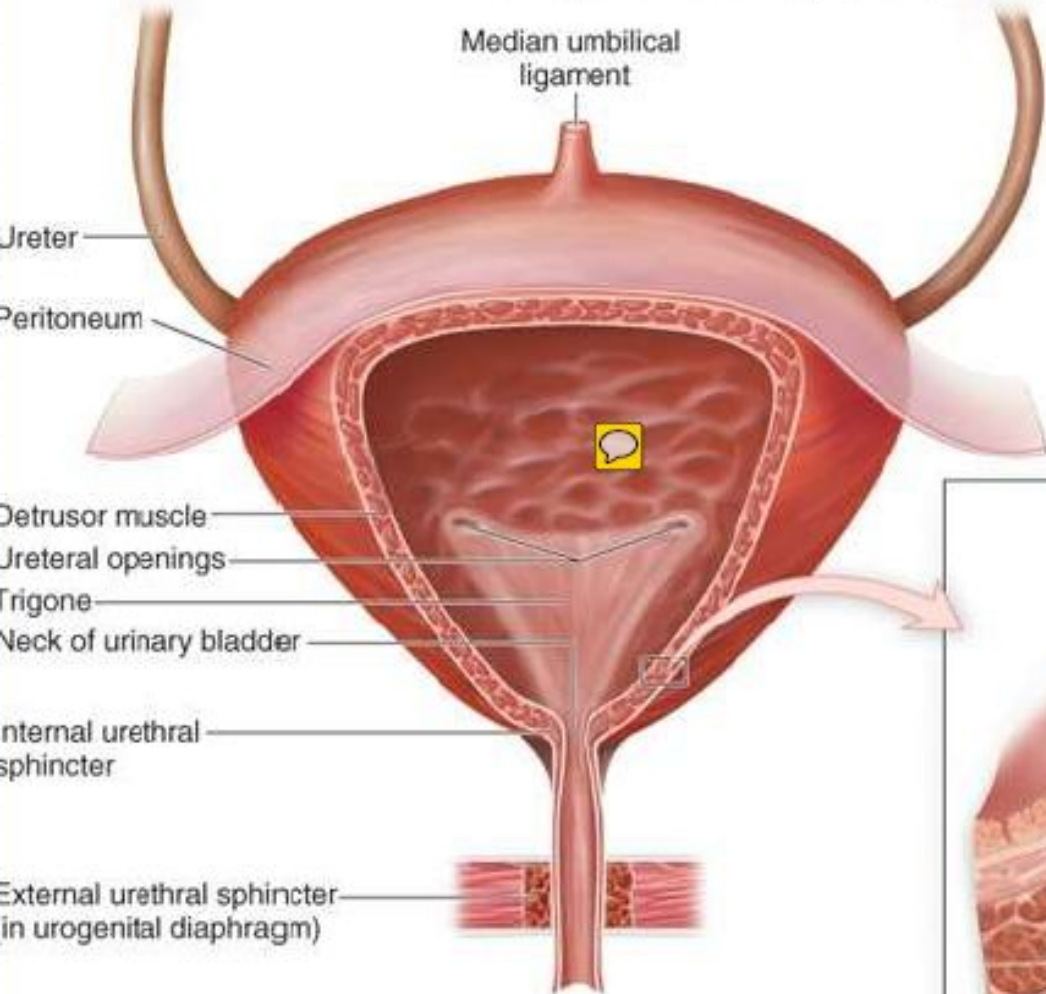
Тауман Омиржан

Топография



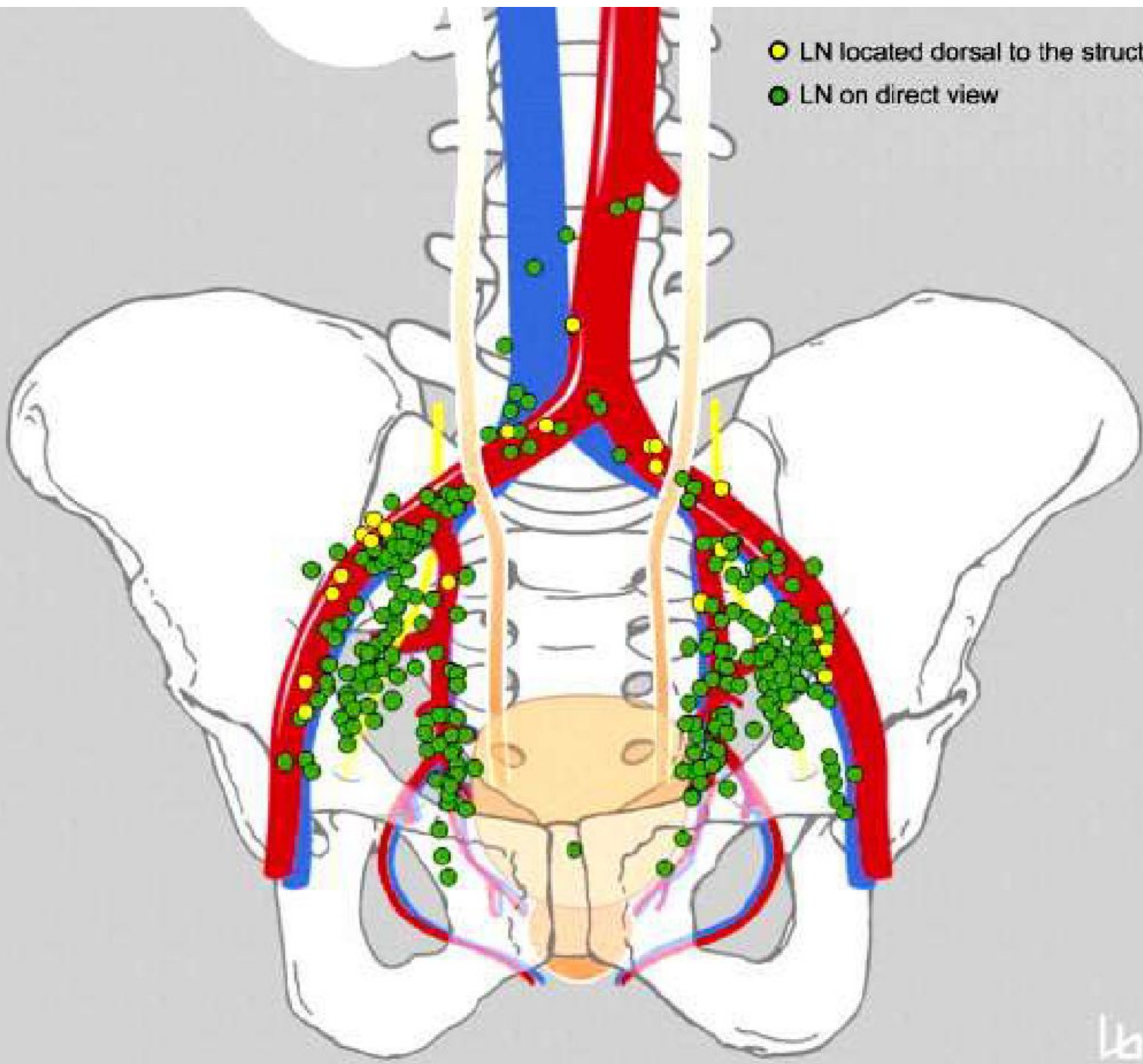
АНАТОМИЯ

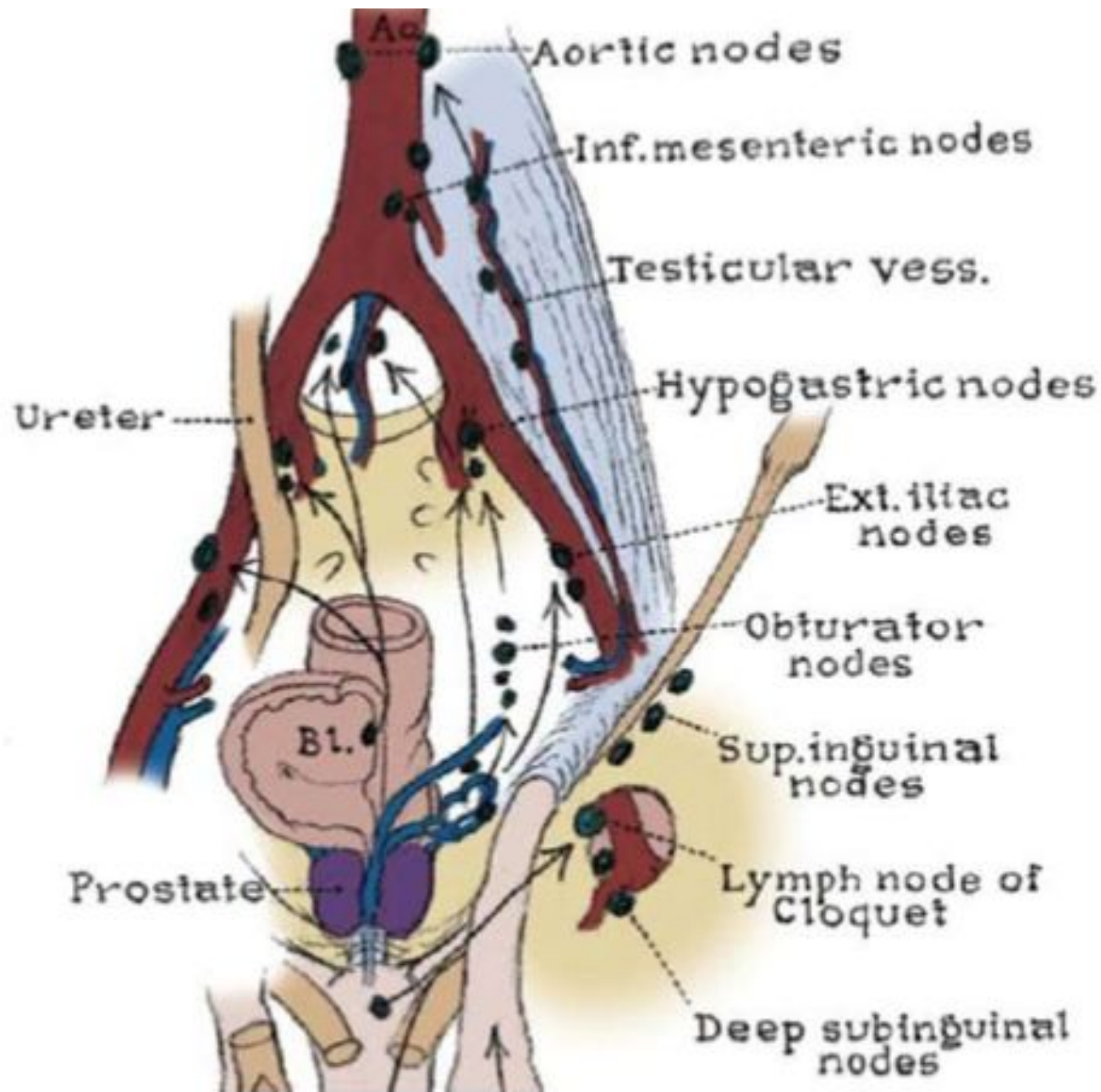




a)

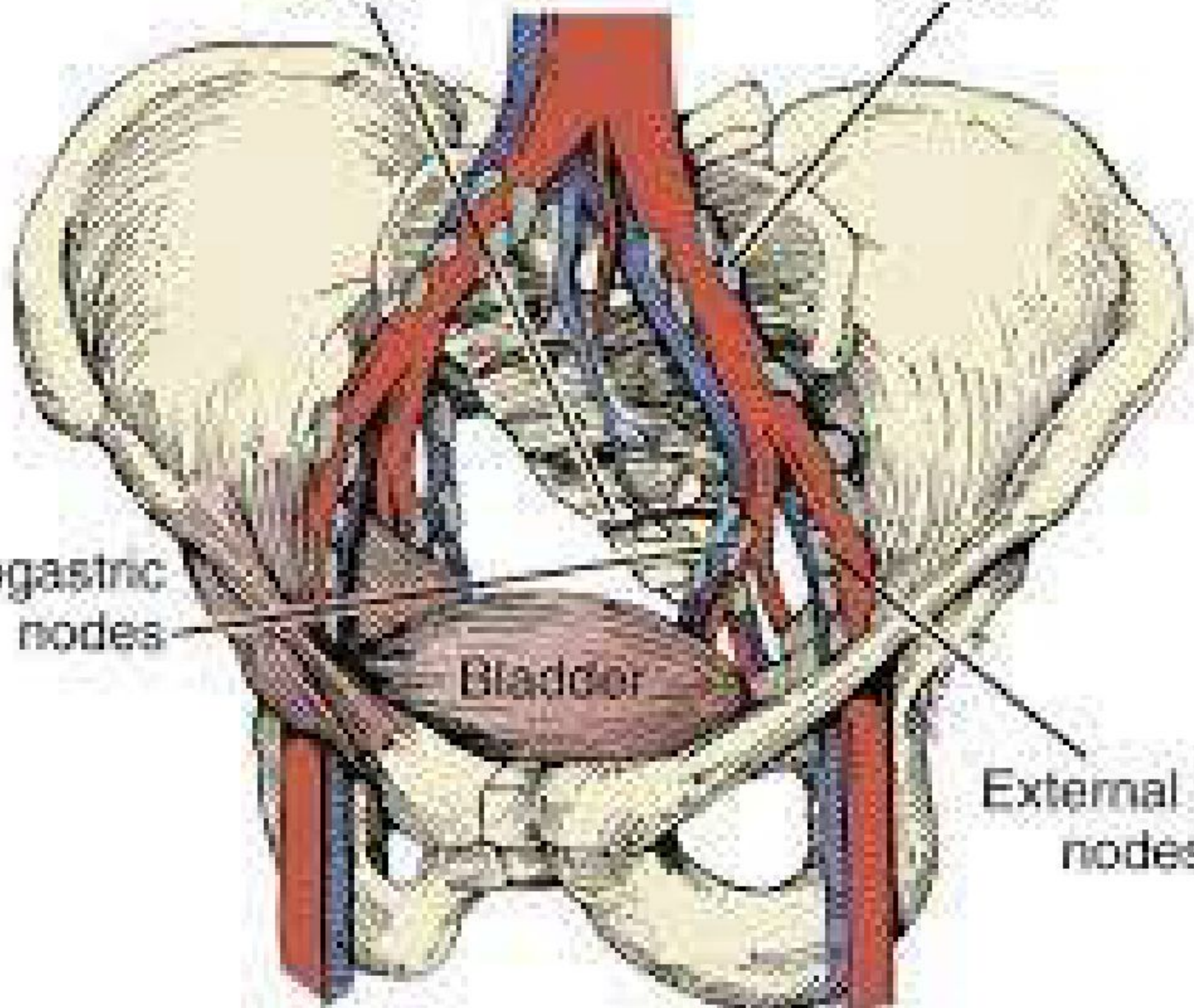
- LN located dorsal to the structure
- LN on direct view





Presacral nodes

Common iliac nodes

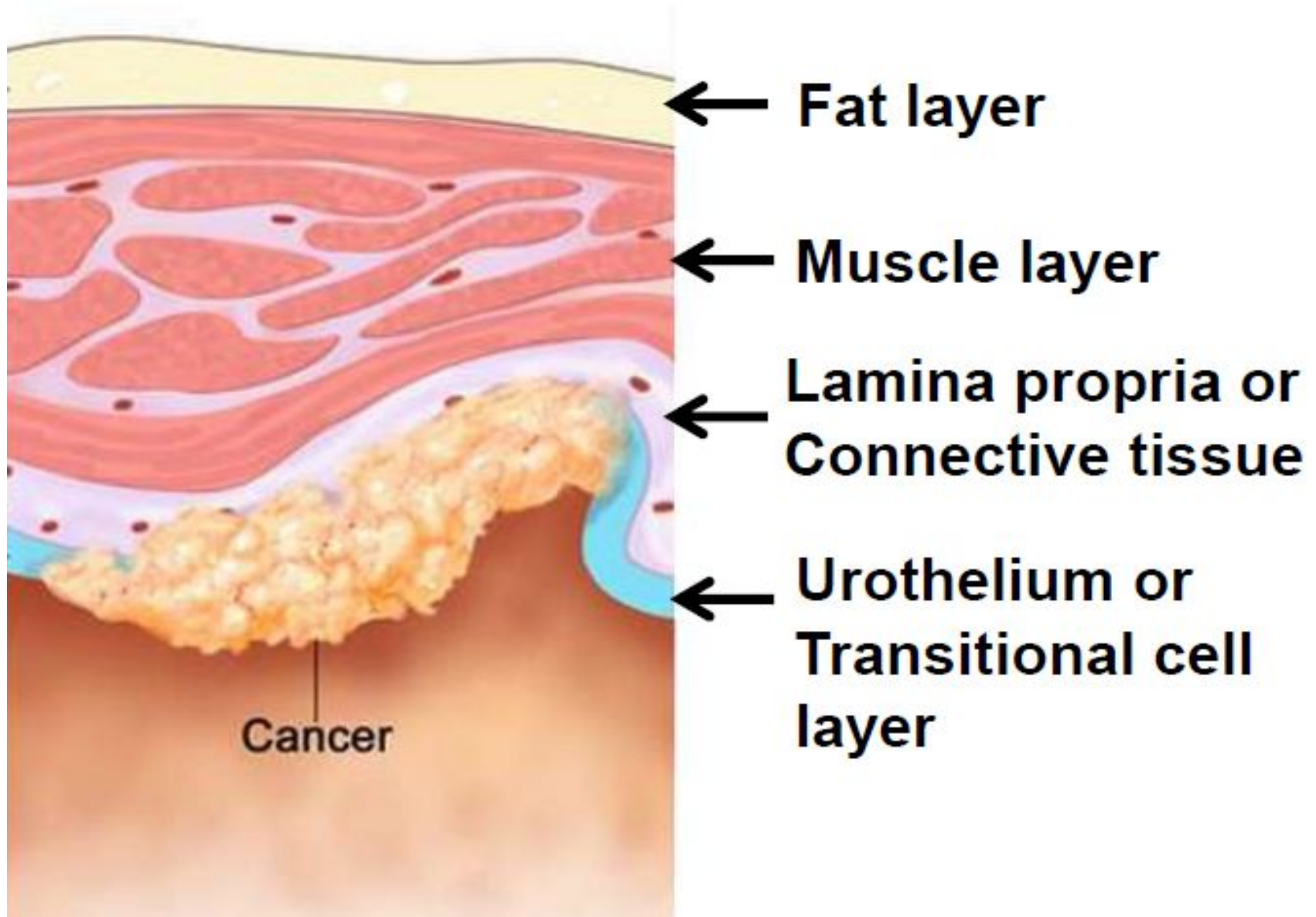


Hypogastric nodes

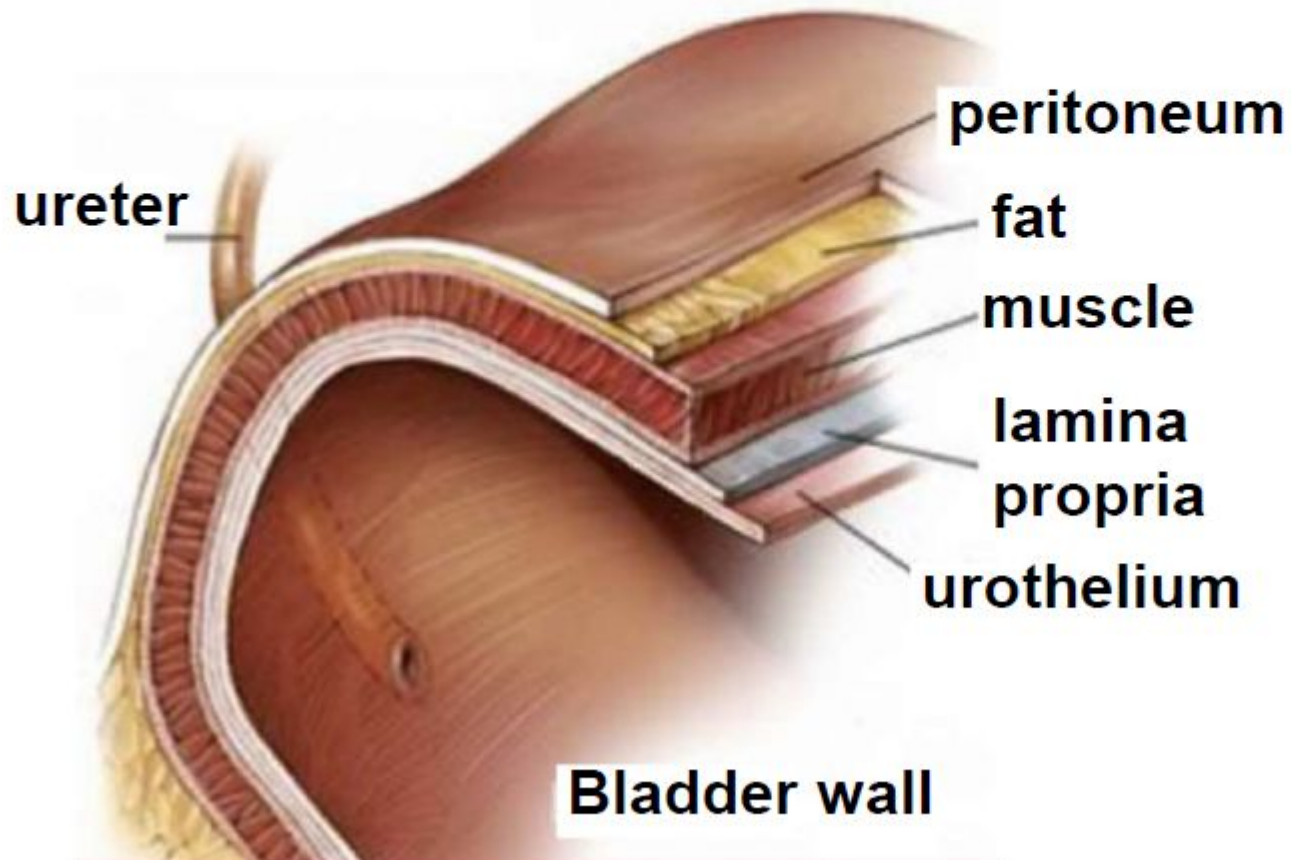
Bladder

External iliac nodes

Гистология



Layers of the Bladder Wall



Физиология

Когда ощущается позыв к мочеиспусканию

- 100–150 мл: рецепторы в мышечной стенке мочевого пузыря активируются и передают сигнал в головной мозг о том, что мочевой пузырь начинает наполняться;
- 250–300 мл: отчетливый позыв к мочеиспусканию;
- 300 мл: непреодолимый позыв.

Регулируют работу мочевого пузыря – рецепторы.

- мускариновые рецепторы, чья активность вызывает выделение мочи,
- β_3 -адренорецепторы, задача которых – расслабление мочевого пузыря и увеличение его объема.

Рак мочевого пузыря

Эпидемиология

79,030
diagnosed in
2017

600K + living
with bladder
cancer

5th most
common
cancer

16,870 will die
in 2017

*“Statistics are human beings with
the tears wiped away.”*

50% - 80%
recurrence
rate



4th most
common
in men



11th most
common in
women

В мире (РМП) занимает 9-е место среди всех злокачественных новообразований.

Ежегодно диагностируется более 330 000 новых случаев РМП. Около 130 000 человек умирают от данного заболевания.

- **Эпидемиология в мире и в Казахстане**

За 10-летний период в РК доля рака мочевого пузыря в структуре злокачественных опухолей составила 2,07%.

Стабильными с незначительной тенденцией к снижению, с 4,0% 000 (2004) до 3,8% 000 (2013).

Лидирующую позицию по заболеваемости РМП занимает Северо-Казахстанская область (7,7% 000),

Костанайская (7,0% 000),

Акмолинская (5,8% 000) области и г. Алматы (5,7% 000).

Наиболее низкие показатели заболеваемости РМП отмечены в Южно-Казахстанской (1,4% 000), Атырау-ской (1,4% 000) и Мангистауской (1,9% 000) областях.

Казахский научно-исследовательский институт онкологии и радиологии, Алматы, РК

Тип: Статистика

УДК: 616.64-006.6-036.22(574)

Год: 2015 выпуск: 35 номер: 1 стр: 3-6

Факторы Риска



3x more common in smokers



Chemical/occupational exposure



Arsenic in water



Race, age, gender, birth defects



Chronic bladder inflammation



Medical history recurrence



Low fluid intake



Previous cancer treatment

Патология

- 95% всех опухолей МП эпителиального происхождения
- 90% из них Переходно – клеточный рак



Папиллярный
(70-75%)



непапиллярный

Cis инвазивный

Uterus (in women)

Kidney

Ureter

Bladder cavity

Urethra

Prostate
(in men)

Lymph nodes

Layers of the bladder wall

Bladder lining
(transitional cells)

Submucosa

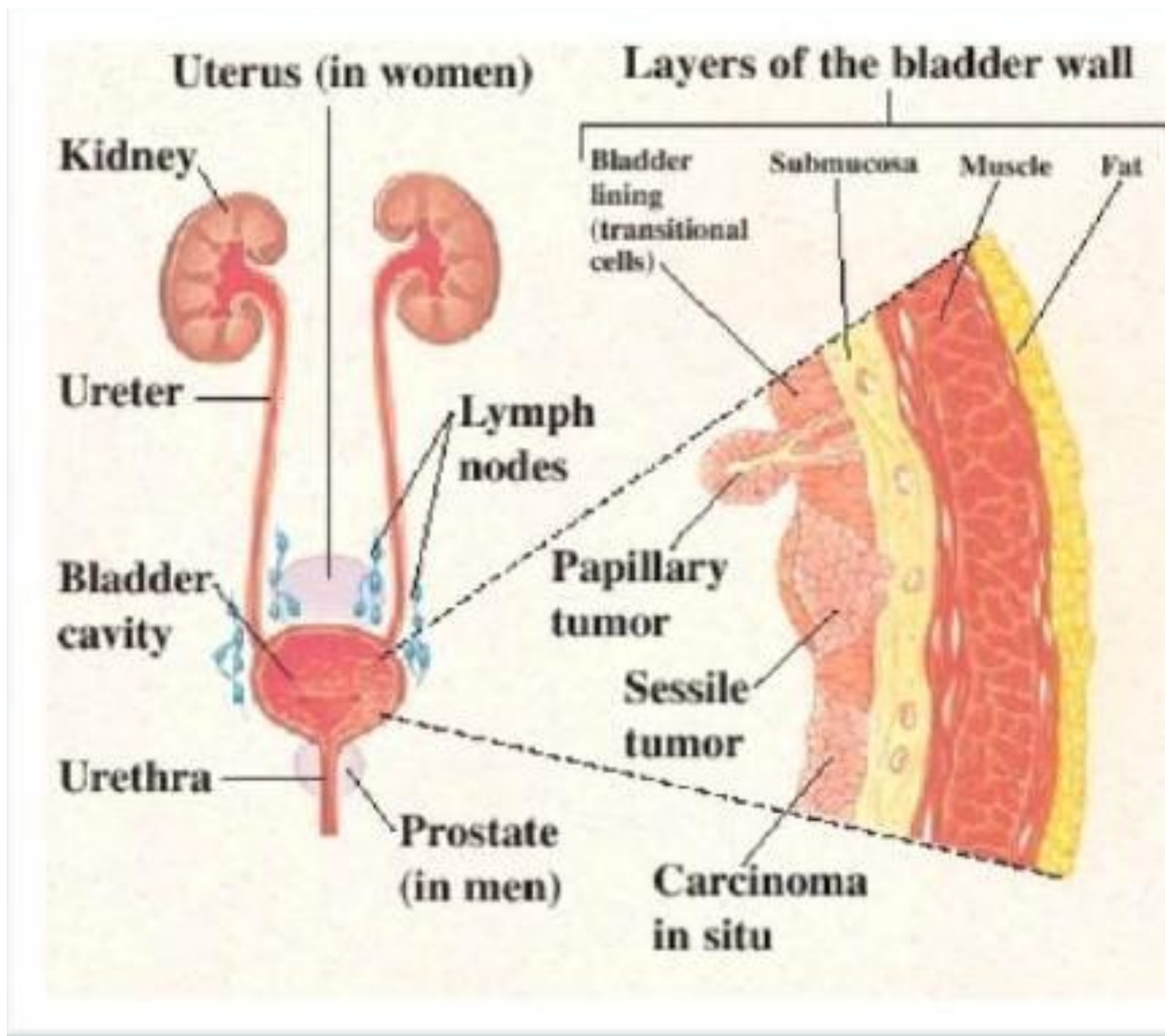
Muscle

Fat

Papillary tumor

Sessile tumor

Carcinoma in situ



Pathology

- Squamous Cell Carcinoma
- Adenocarcinoma
- Small Cell Cancer
- Rhabdomyosarcoma
- Lymphoma
- Melanoma
- Secondaries from other sites
- Primary UB Pheochromocytoma

TYPES OF BLADDER TUMORS

Non-invasive



Papilloma
Papillary carcinoma



Invasive
Papillary carcinoma

Invasive

In situ



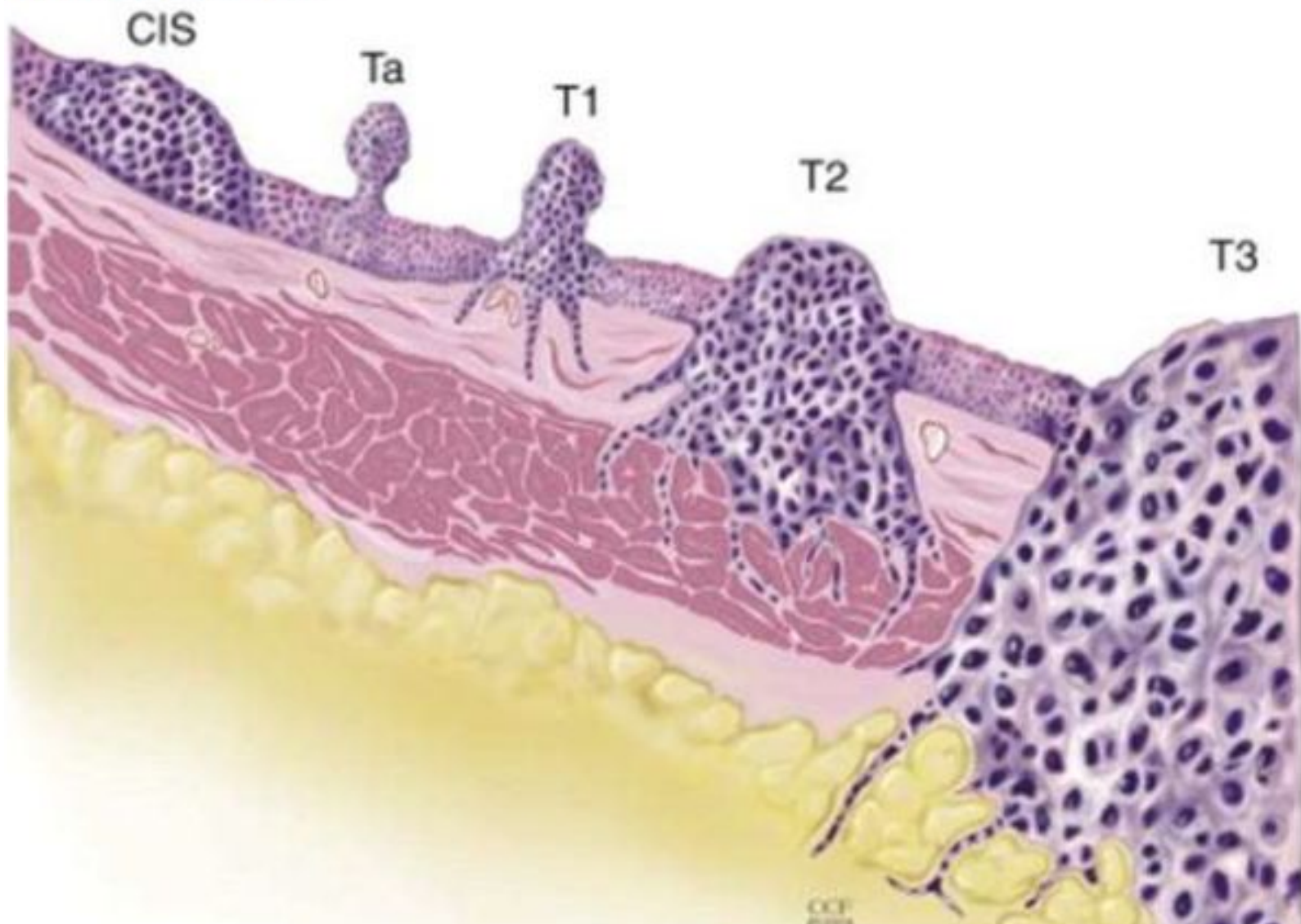
Flat (sessile)
non-invasive carcinoma



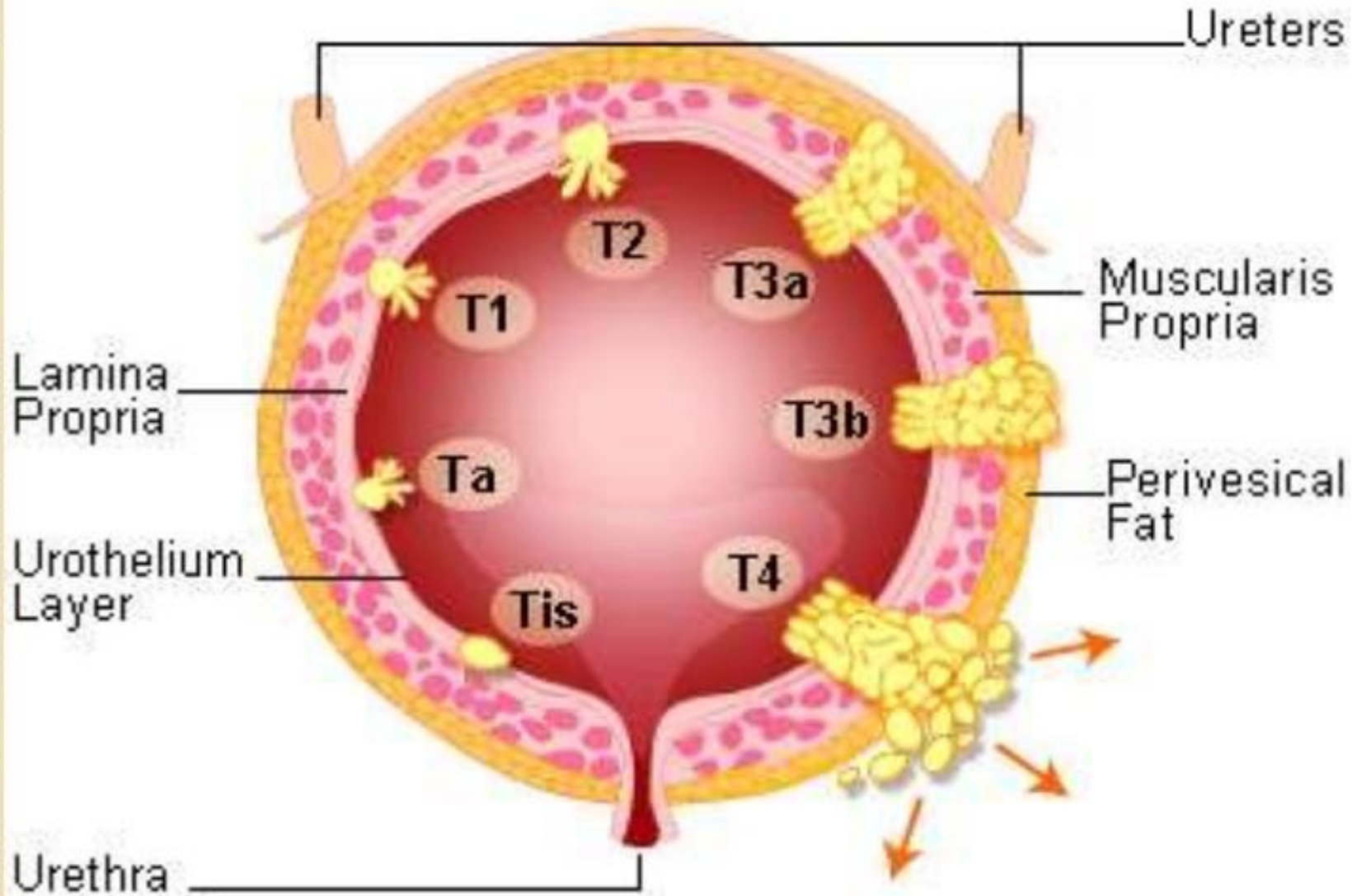
Flat (sessile)
invasive carcinoma

Invasive

Стадии



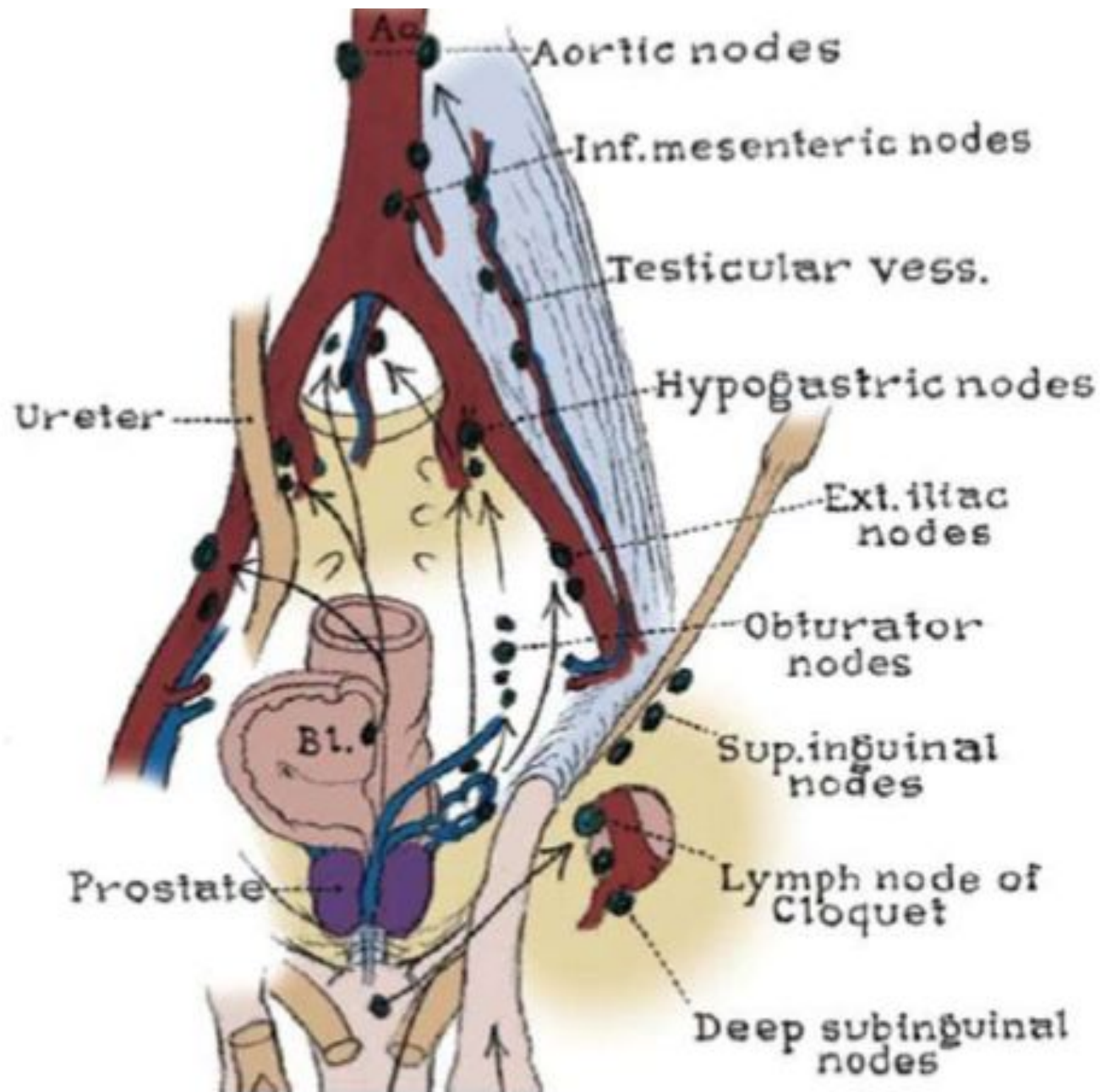
Bladder Cancer



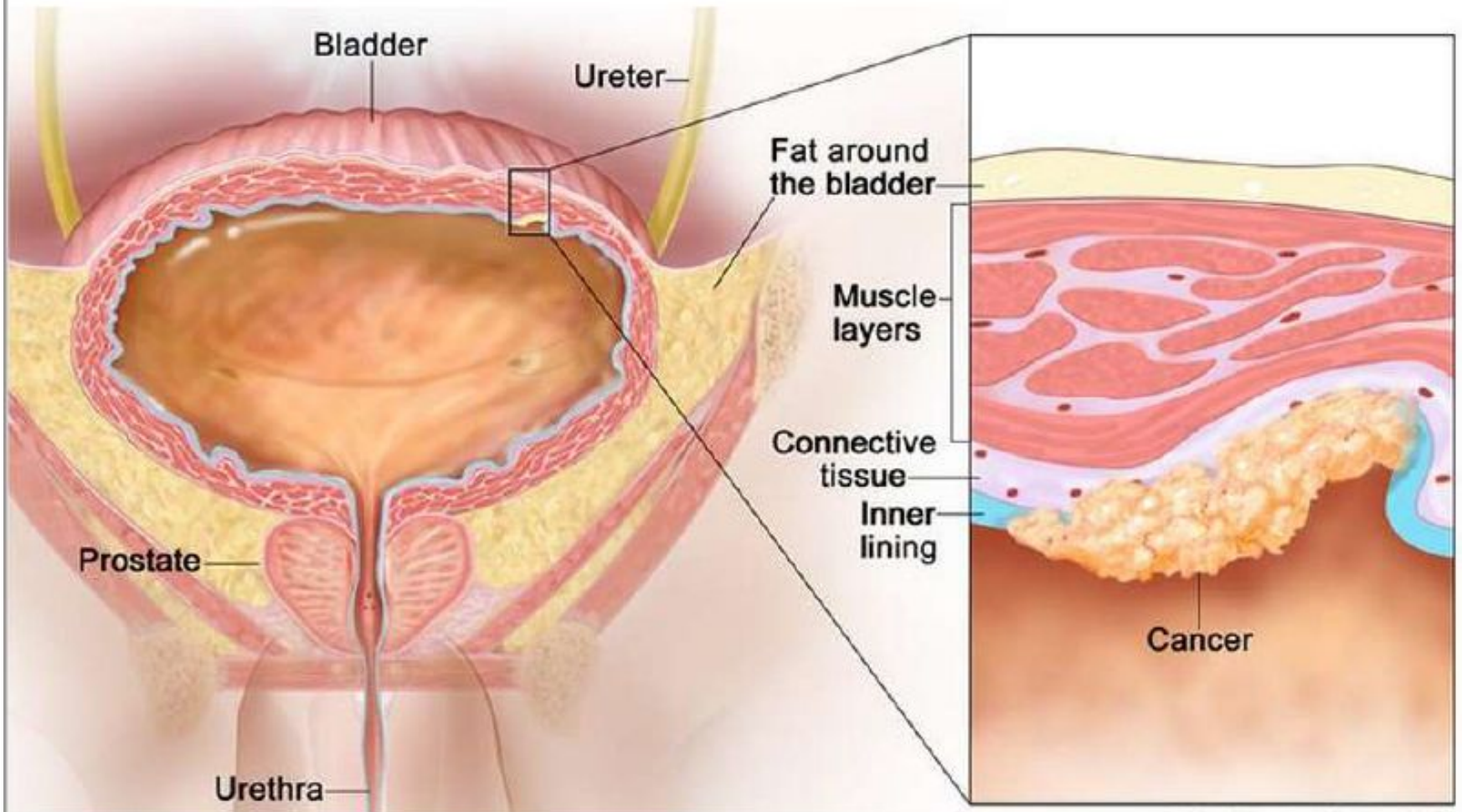
Regional Lymph Nodes (N)

Regional lymph nodes include both primary and secondary drainage regions. All other nodes above the aortic bifurcation are considered distant lymph nodes.

- NX Lymph nodes cannot be assessed
- N0 No lymph node metastasis
- N1 Single regional lymph node metastasis in the true pelvis (hypogastric, obturator, external iliac, or presacral lymph node)
- N2 Multiple regional lymph node metastasis in the true pelvis (hypogastric, obturator, external iliac, or presacral lymph node metastasis)
- N3 Lymph node metastasis to the common iliac lymph nodes

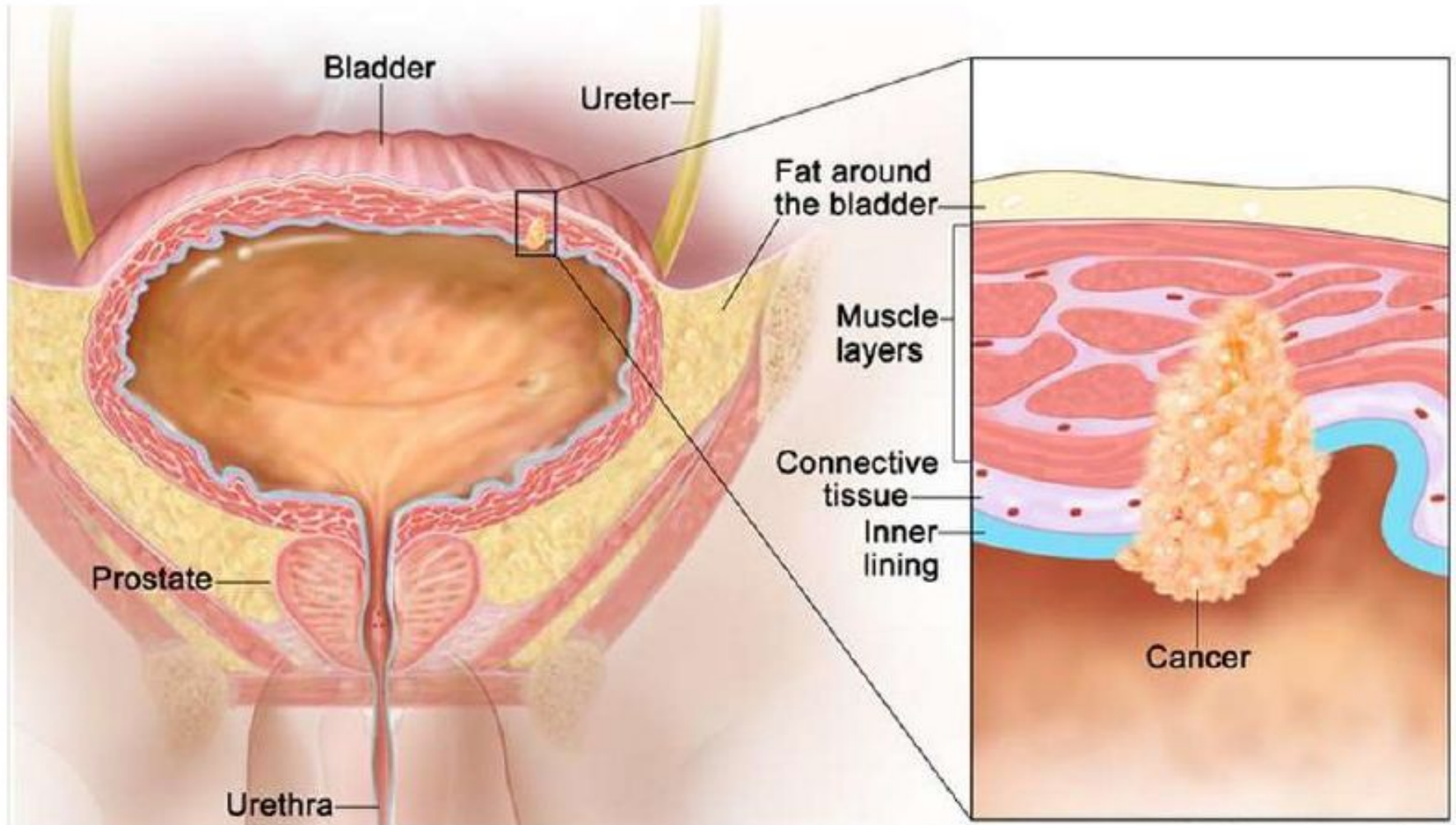


Stage I Bladder Cancer



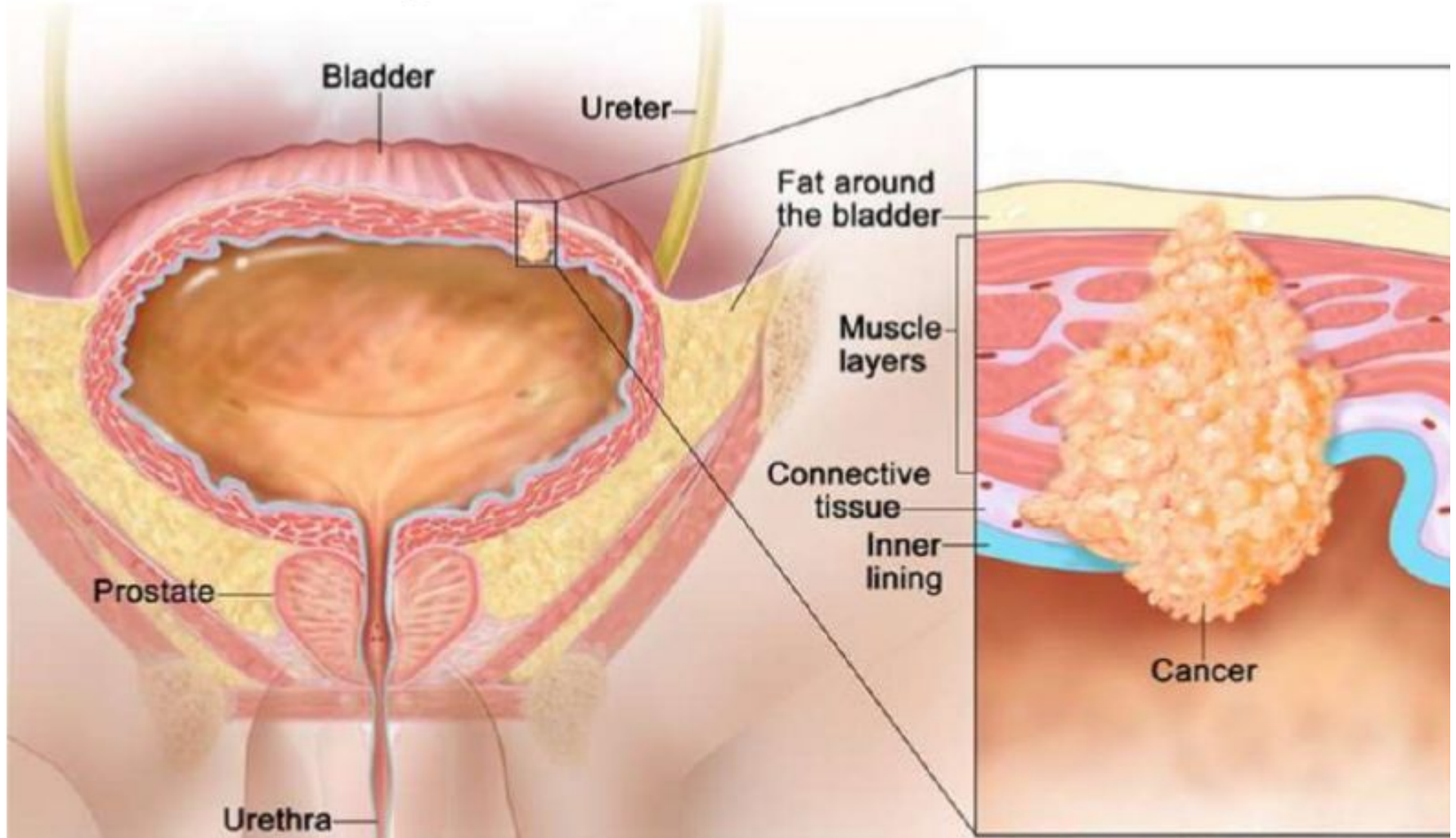
Cancer has spread to the layer of connective tissue next to the inner lining of the bladder.

Stage II Bladder Cancer



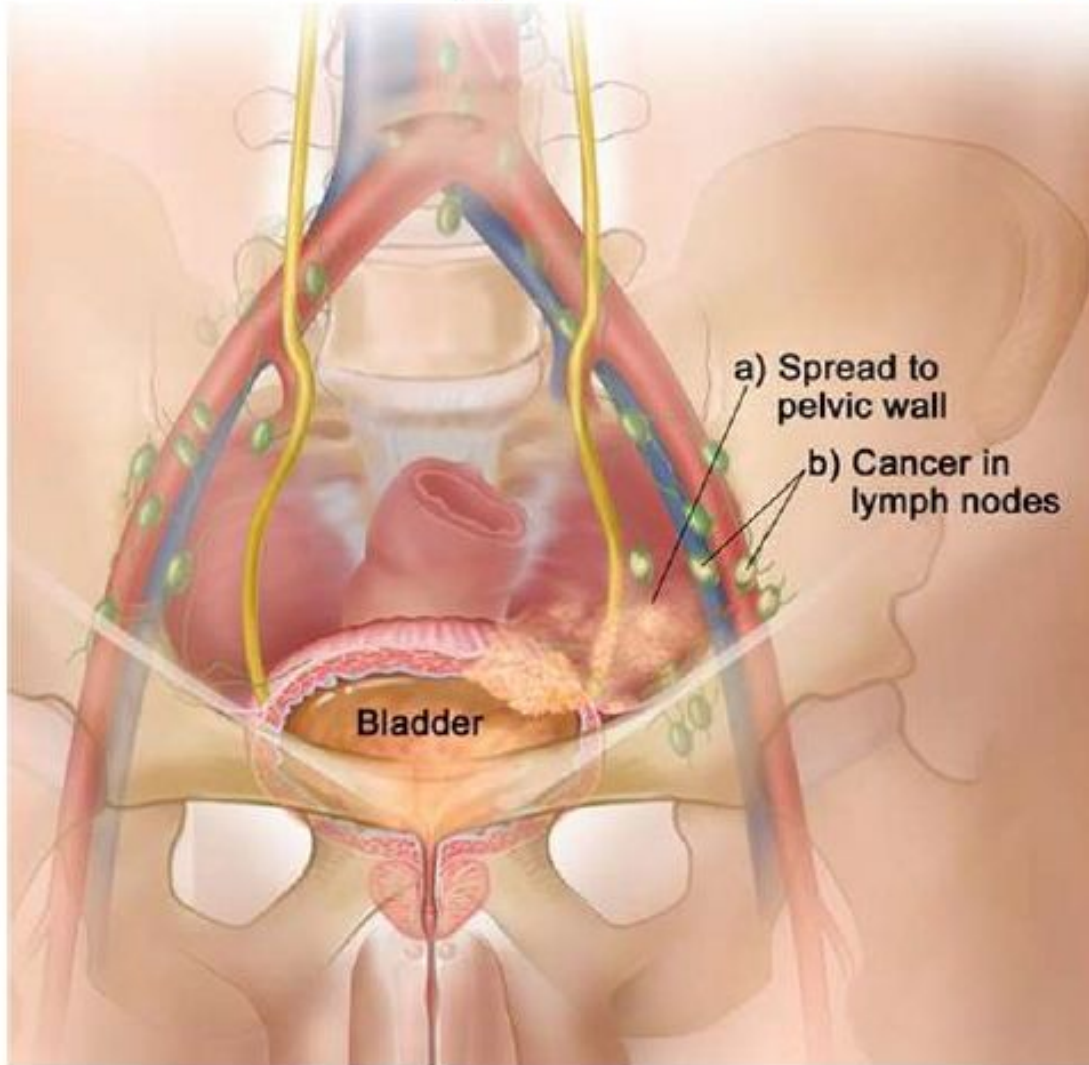
Cancer has spread to the layers of muscle tissue of the bladder.

Stage III Bladder Cancer

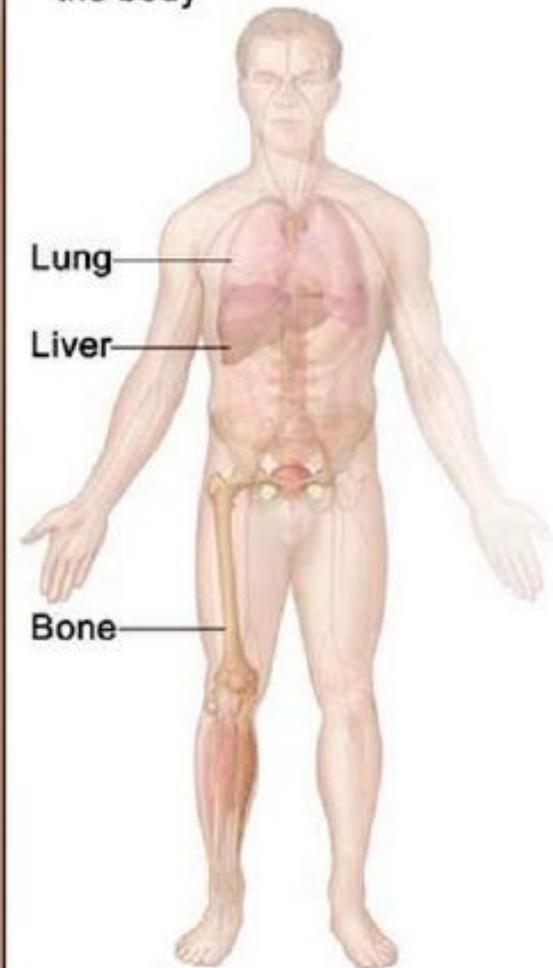


Cancer has spread from the bladder to the layer of fat surrounding it. It may also have spread to the prostate and/or seminal vesicles in men or the uterus and/or vagina in women.

Stage IV Bladder Cancer



c) Spread to other parts of the body



Cancer has spread from the bladder to (a) the wall of the abdomen or pelvis, (b) one or more lymph nodes, and/or (c) other parts of the body, such as the lung, liver, or bone.

What are the Signs & Symptoms?

Signs

Blood in the urine

Painful urination

Urgent need to urinate

Feeling the need (but unable) to urinate

Symptoms

Abdominal pain

Fatigue

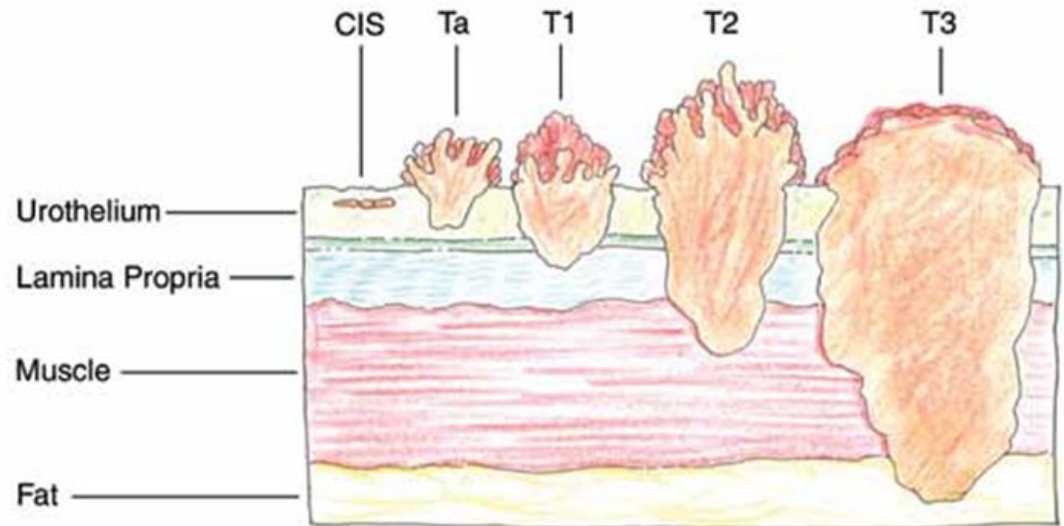
Lower back pain

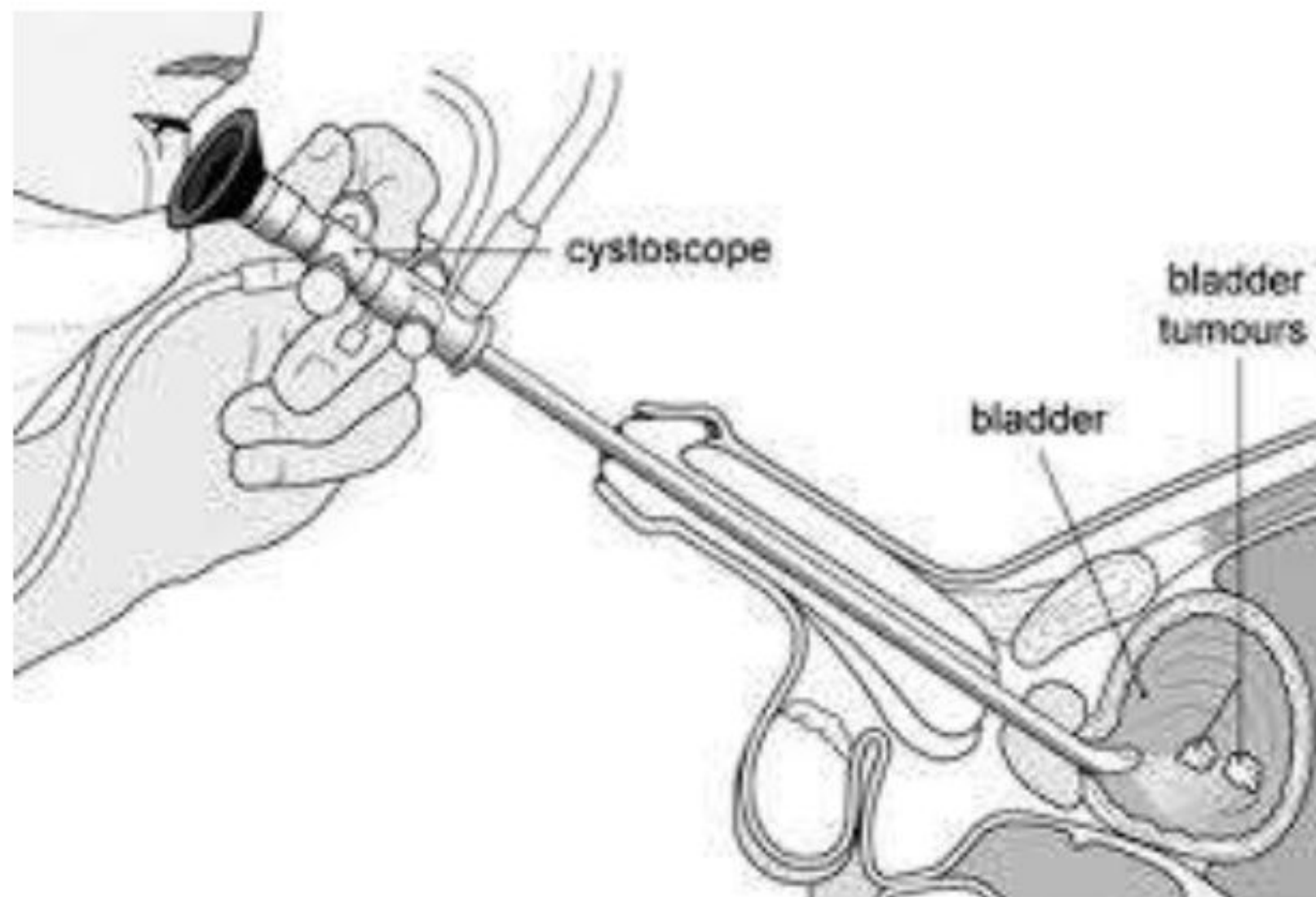
Appetite or weight loss

How is it Diagnosed?

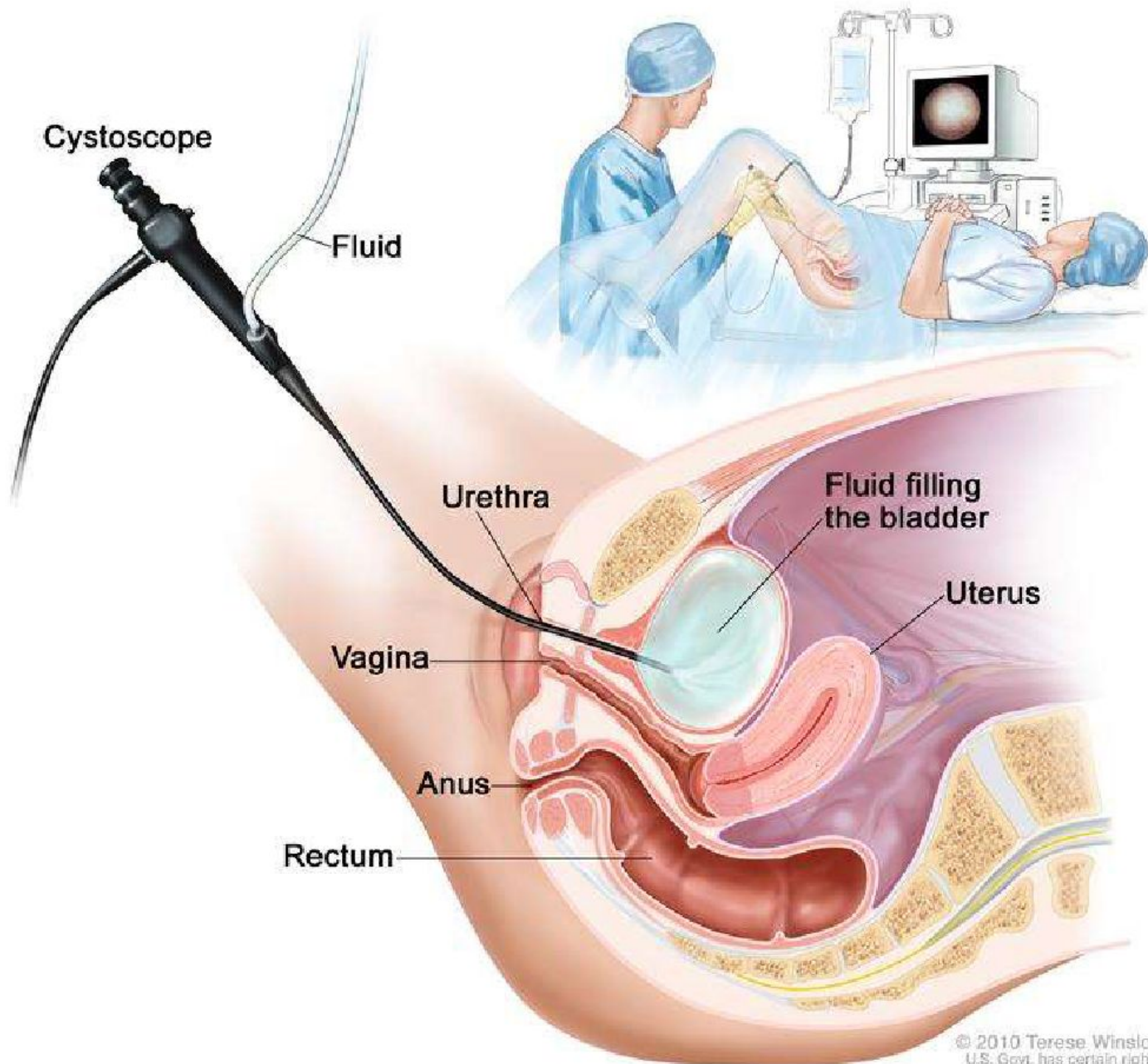
Diagnostics

- Cystoscopy
- Tissue sample
- Radiologic Tests
- CT scan
- Stage & Grade





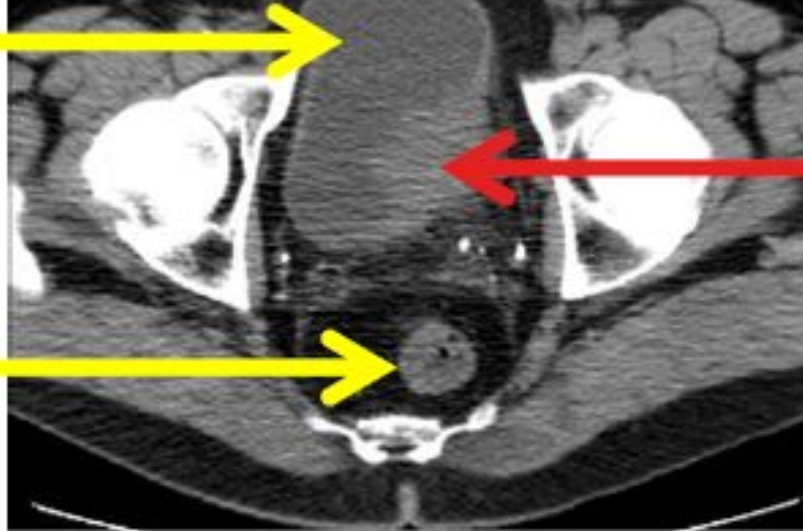
Cystoscopy





CT Scan

bladder

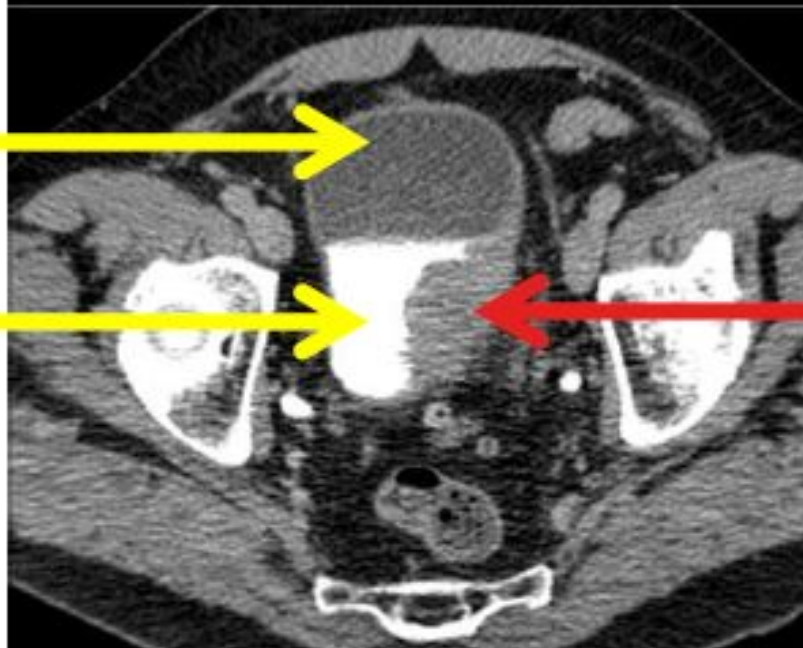


rectum

Cancer

CT Scan with contrast

bladder

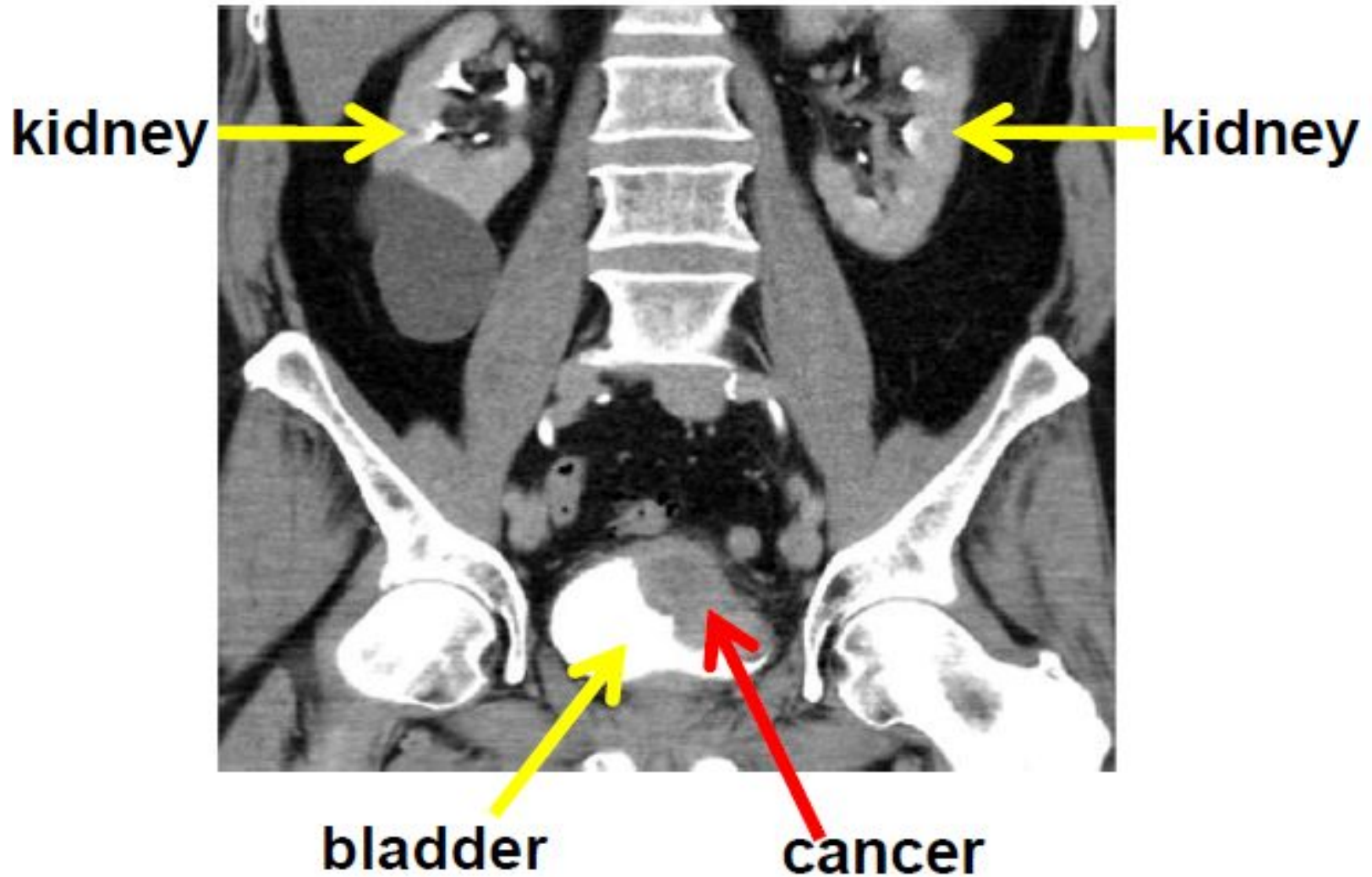


IV Contrast

Cancer

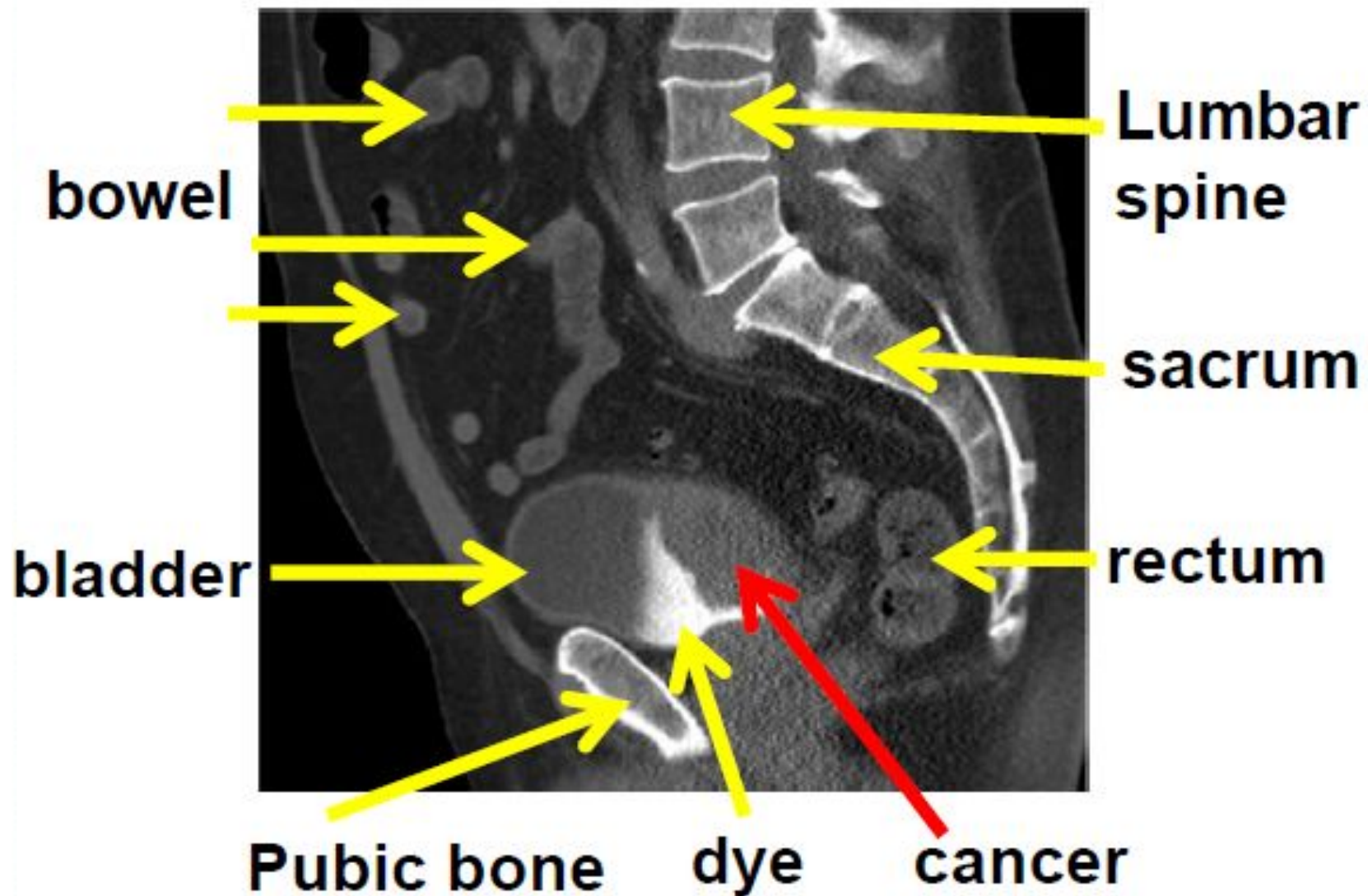


CT Scan with contrast

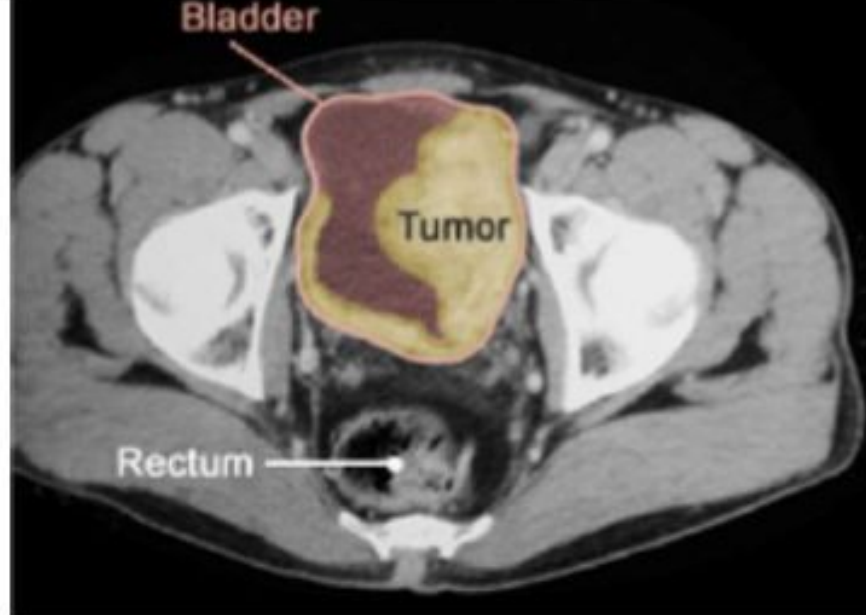




CT Scan with contrast

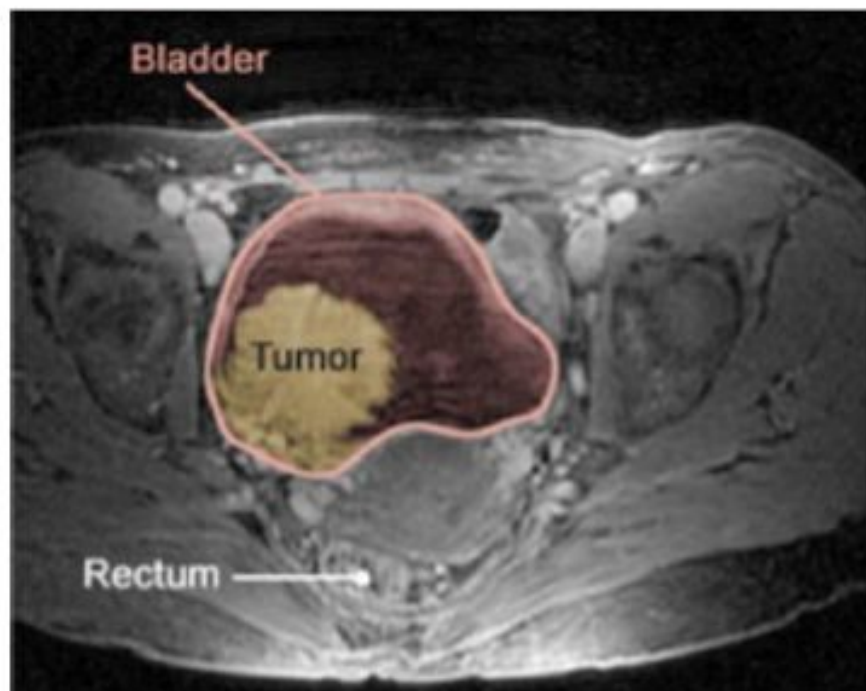


CT

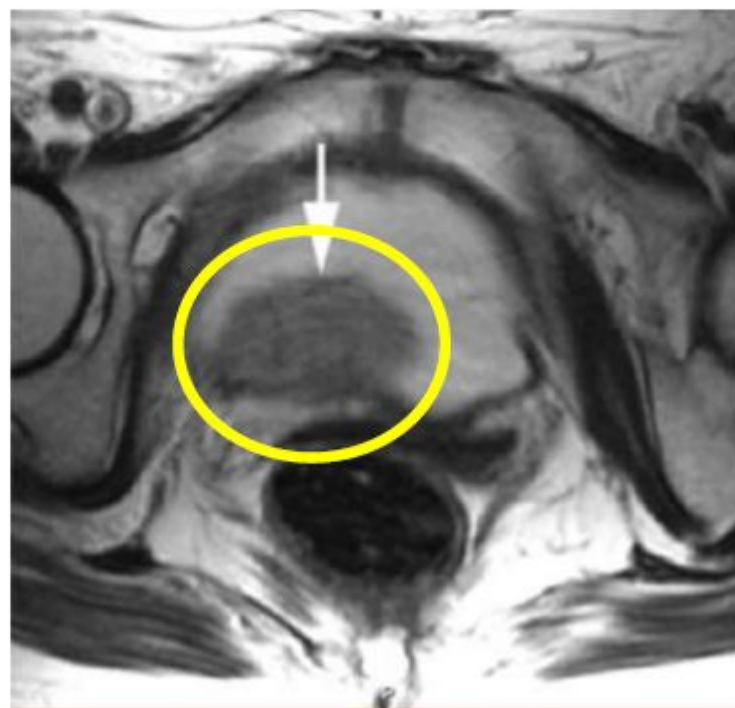
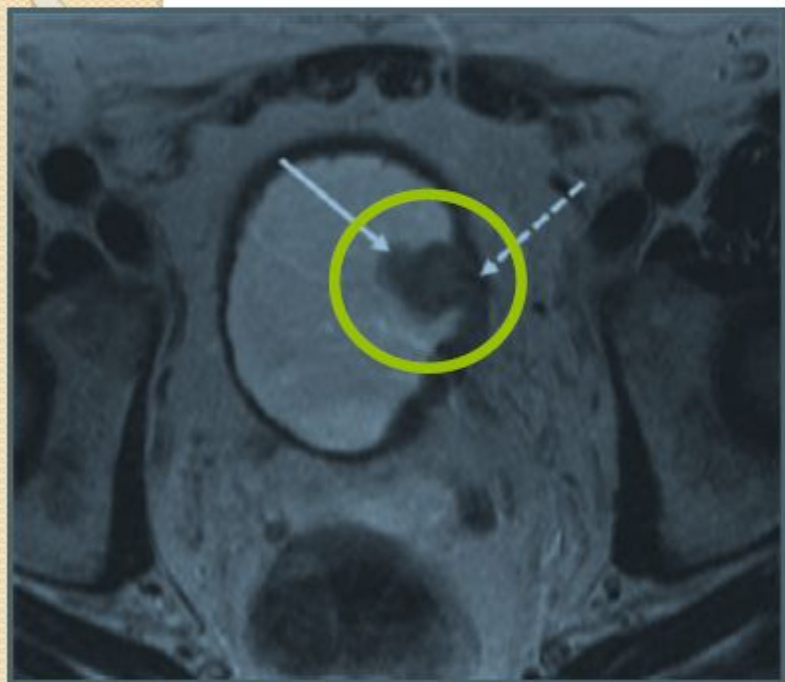


or

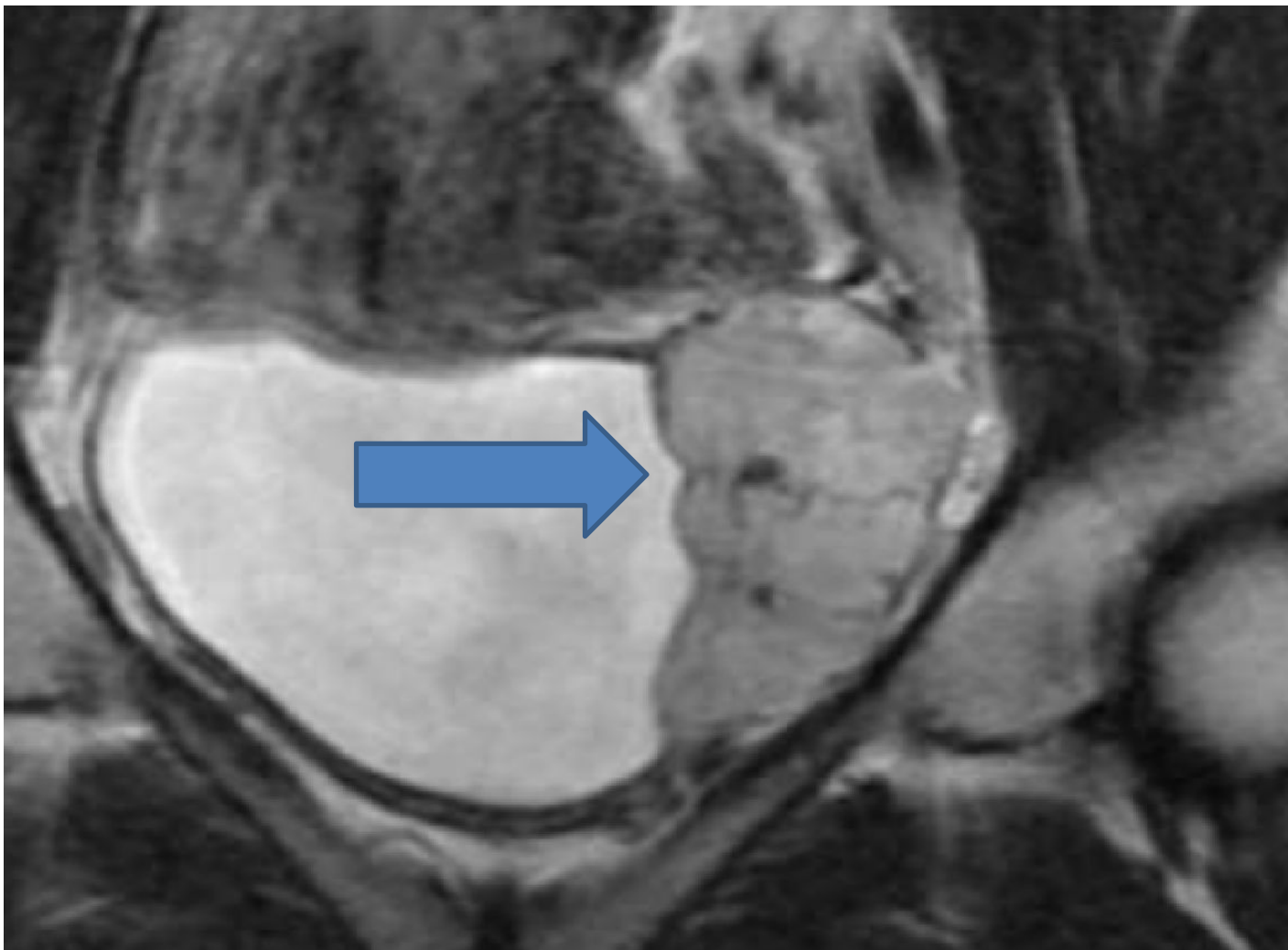
MRI



MRI Bladder Cancer



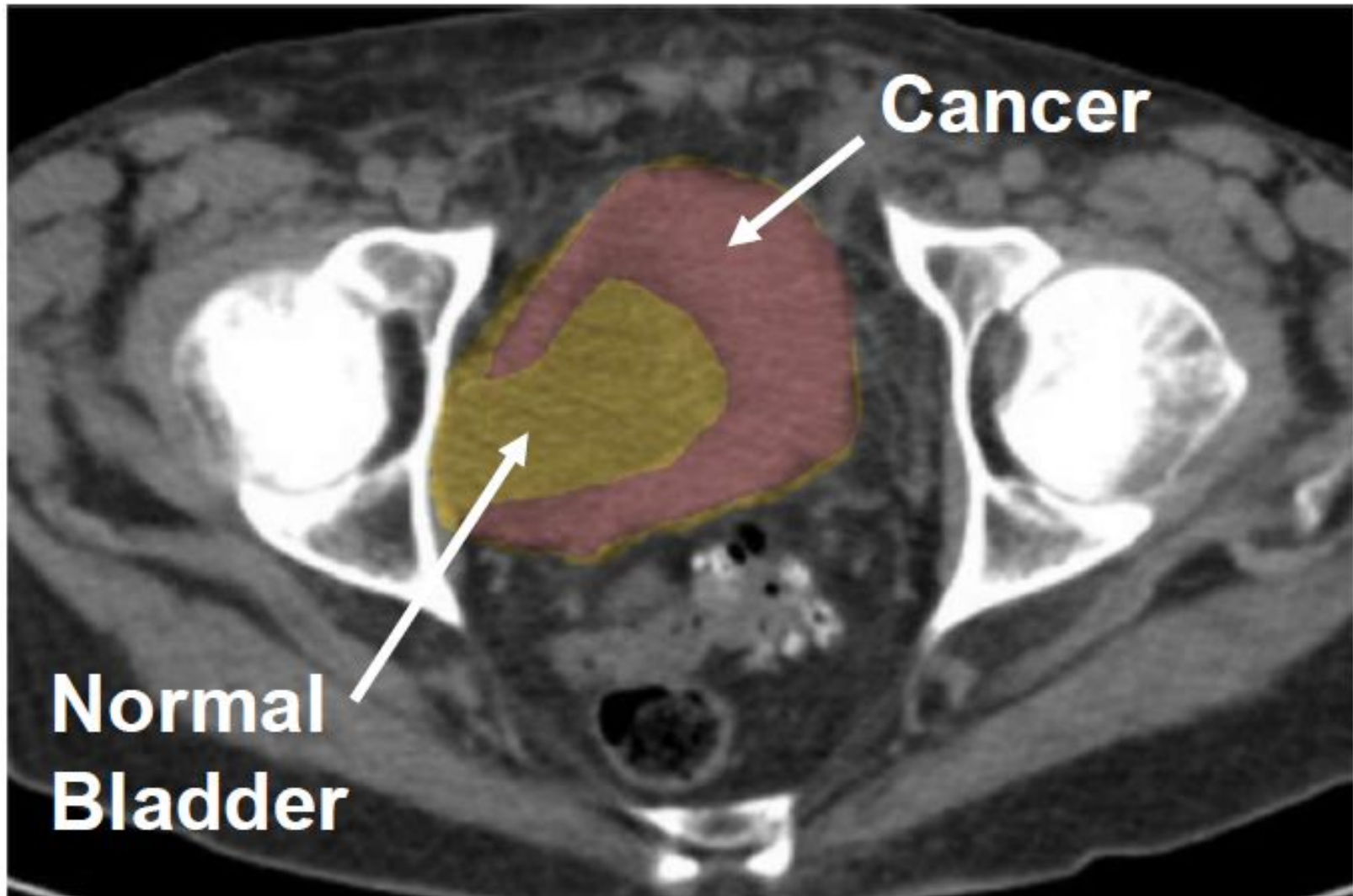
MRI



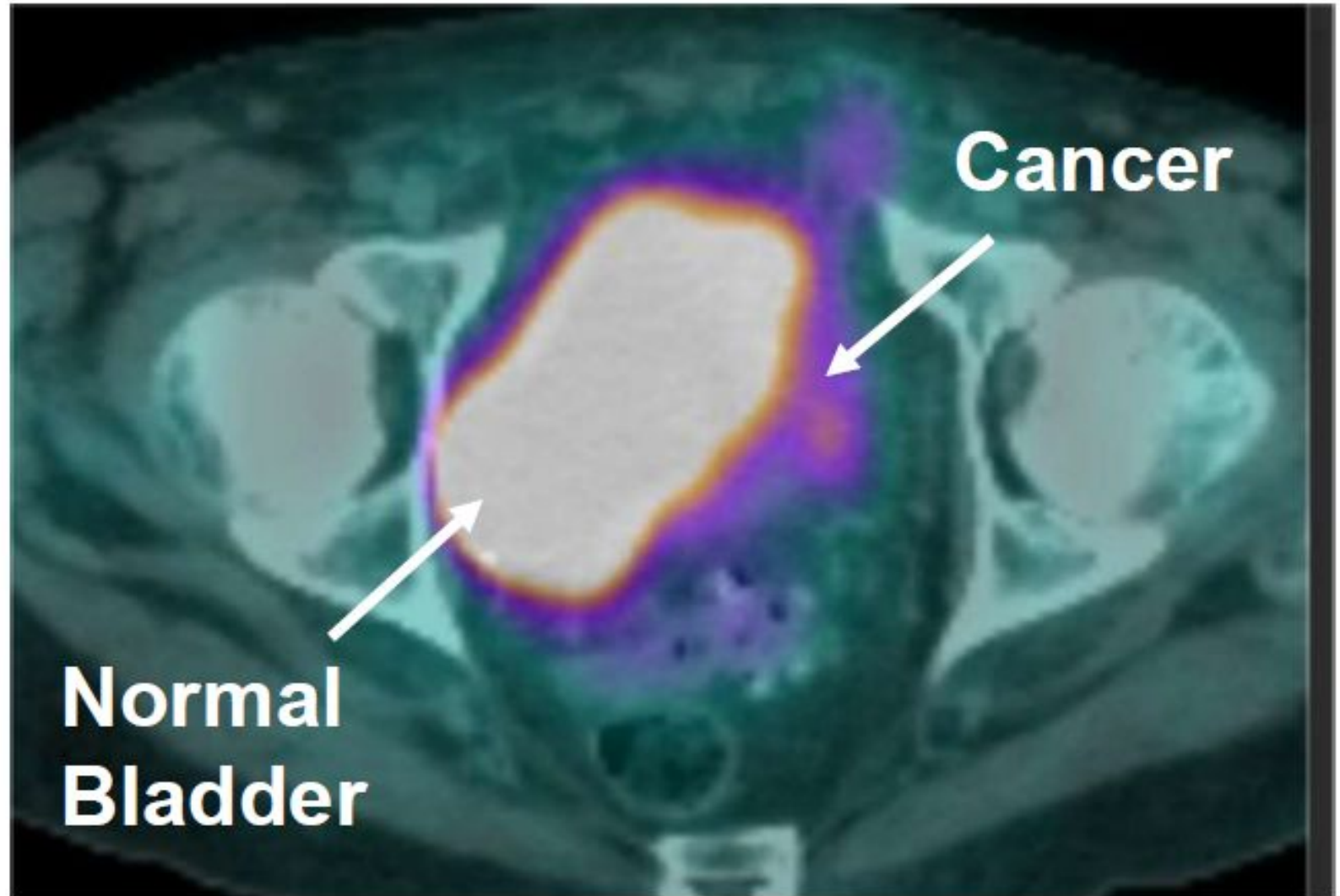
CT and PET



CT and PET



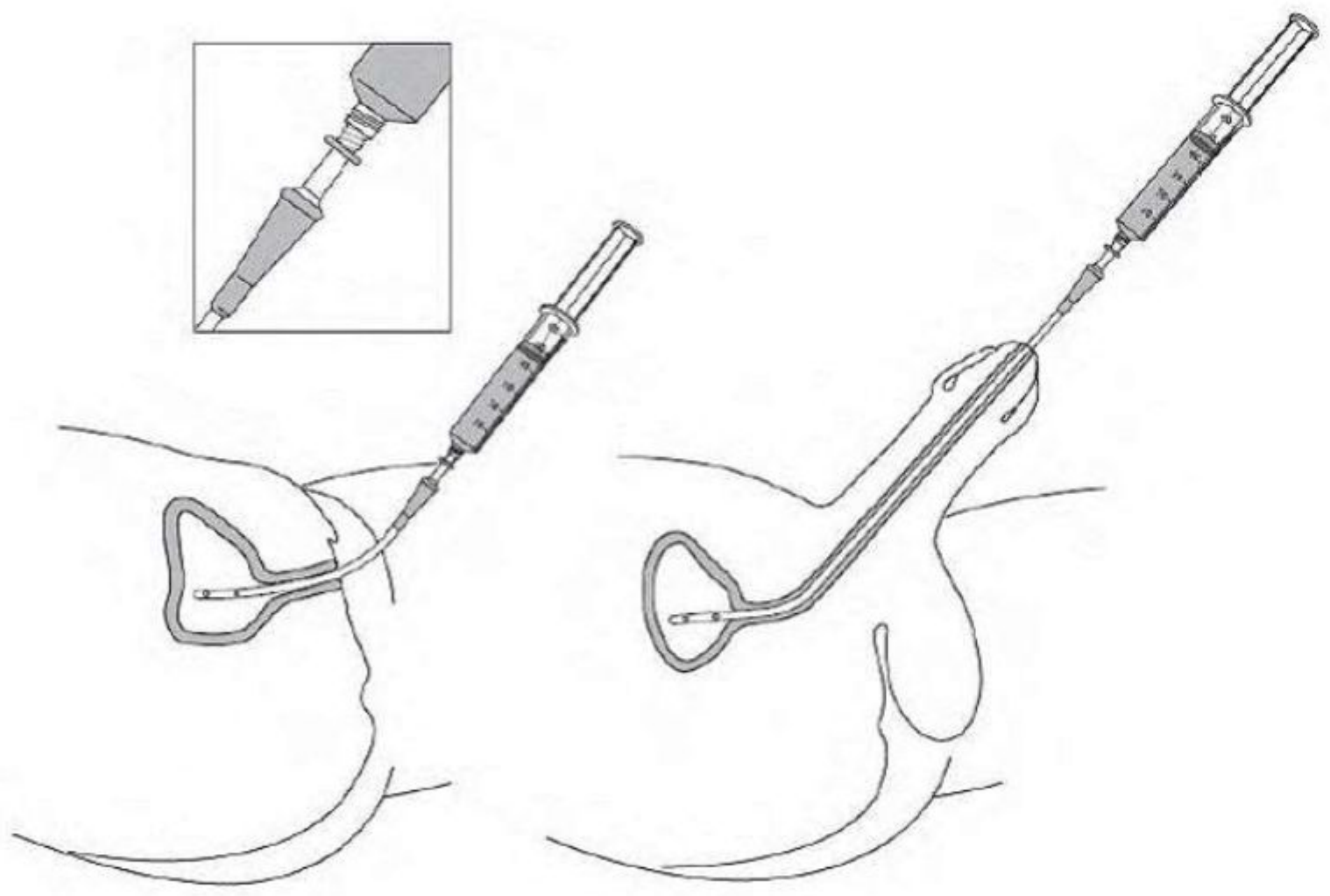
PET Scan



Лечение

Intravesical therapy

CHEMOTHERAPY	IMMUNOTHERAPY
Directly kills tumor cells	Stimulates patient's immune response to fight the tumor
Increasing dose increases cell killing	Increasing dose will only suppress patient's immune response
Penetrates bladder by diffusion	Attaches by receptors
When given within 6 hours of resection prevents tumor seeding	Immediate immunotherapy is very toxic
Low grade tumor more responsive to chemo	High grade tumors are more responsive



Прогноз

APPROXIMATE PROBABILITY OF RECURRENCE AND PROGRESSION

<u>Pathology</u>	<u>Approximate Probability of Recurrence in 5 years</u>	<u>Approximate Probability of Progression to Muscle Invasion</u>
Ta, low grade	50%	Minimal
Ta, high grade	60%	Moderate
T1, low grade (rare)	50%	Moderate
T1, high grade	50%-70%	Moderate-High
Tis	50%-90%	High

