



INTERNATIONALE AKADEMIE FÜR PATHOLOGIE  
DEUTSCHE ABTEILUNG e.V.  
INTERNATIONAL ACADEMY OF PATHOLOGY  
GERMAN DIVISION INC.

# **Klinische Angaben**

## **Lehrserie Nr. 272**

### **New topics in bladder pathology**

von:

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## **Fallanamnesen:**

### **LS 272 Fall 01**

Case 1 Date of Birth: 3rd September, 1950, Caucasian Male The patient complained of irritating voiding symptom in July of 2008, was started on antibiotics for an initial diagnosis of urinary tract infection. His symptoms worsened however over the next few weeks including a new complain of left flank pain and was found to have both microscopic hematuria and malignant cells on urine cytology. CT showed bladder mass centered in the left lateral wall. Transurethral resection of the bladder tumor confirmed the presence of a muscle invasive urothelial carcinoma. The patient underwent a radical cystoprostatectomy procedure.

### **LS 272 Fall 02**

Case 2 Date of Birth: 22 February, 1934, African American Male The patient presented with macrohematuria for which he underwent an evaluation of his urinary system and was found to have a non-functional left kidney and a large bladder mass occupying most of the left lateral-posterior bladder wall and the trigon area. A cystoscopy followed revealing an friable exophytic tumor obliterating the orifice of the left ureter. Biopsy were obtained showing partially necrotic adenocarcinoma. Sigmoidoscopy and total colonoscopy followed with no evidence of intra colonic growth. The patient underwent a left nephroureterectomy and a radical cystoprostatectomy procedure. There was gross and microscopic evidence of and end stage changes of the left kidney with hydronephrosis and dilated left ureter. A representative section of the bladder tumor is provided.

### **LS 272 Fall 03**

Case 3 Date of Birth: 21 August, 1938, Cacaussian Male This patient has a known diagnosis of chronic lymphocytic leukemia (CLL) since 2001 with several regiments of chemotherapy during the last few years. Additionally, following a needle biopsy diagnosis of Gleason score 6 adenocarcinoma in 2003, the patient had radical prostatectomy showing an organ confined Gleason score 7 adenocarcinoma. During the last month the patient developed painless gross hematuria which he described as intermittent. CT of the pelvis revealed a large calcified bladder mass. He underwent radical cystectomy and pelvic lymph node dissection. The bladder contained 6 x 4 x 3 cm calcified mass with parts of the mass needed to be decalcified prior to histological sectioning. The pelvic lymph nodes were extensively replaced by malignant lymphoma with morphological features consistent with CLL. A decalcified section of the bladder tumor is provided.

### **LS 272 Fall 04**

Case 4 Date of Birth: 2nd February, 1937, Hispanic Male Patient presented with hematuria and hematochezia, Imaging and clinical studies revealed a bladder mass as well as a rectal tumor. A major surgical procedure entailing a radical cystoprostatectomy as well as rectosigmoidectomy (left anterior resection), was performed. The pathological findings were as follows: A 4.5 cm bladder tumor in the posterior wall and trigon with gross and microscopic evidence of extending into the per pelvic fat. A three Gleason pattern (4, 5 and 3, score 9) adenocarcinoma of the prostate involving 10% of the gland. A 5.0 cm rectosigmoid usual type colonic adenocarcinoma. A representative section of the bladder tumor is provided.

### **LS 272 Fall 05**

Case 5 Date of Birth: 23 April, 1943 Caucasian Female This patient carried a diagnosis of interstitial cystitis for more than 30 years. She has been managed with intermittent silver nitrate treatment, stopped treatment for the past 8 years. In the early summer of 2006 she presented with symptoms of urinary tract infection which did not respond to antibiotics. She had a CT study a month later and a large bladder mass was found along with a mass in the mid right ureter causing complete obstruction and secondary right renal hydronephrosis. The patient underwent a radical cystectomy and right nephroureterectomy. On gross exam, the bladder contained an extensively ulcerated mass of 5x 4 x 2.5 cm. 13 cm proximal to the ureterovesical junction, the ureter harbored a mass with a papillary surface measuring 2.6x 2.0 x 1.0 cm.

### **LS 272 Fall 06**

Case 6 Date of Birth: 26 February, 1971, Caucasian Female This 37 year old woman reports having symptoms and diagnosis of recurrent/chronic urinary tract infection for most of her life. At age 15 or 16, she underwent a procedure which she characterizes as "some sort of ureter replacement or implant surgery. She also had a prior history of kidney stone removed. Recently she presented with different urinary symptoms with increasingly worsening intractable pain leading to a hospital admission in March 2008 and was found to have 4-6 RBCs in urinalysis. Upon cystoscopy, the patient was confirmed to have bladder mass. Subsequently, she had a radical cystectomy with pelvic node dissection, radical hysterectomy with bilateral oophorectomy.

### **LS 272 Fall 07**

Case 7 Date of Birth: 13, January 1935, Middle Eastern Male In 2007, the patient has a diagnosis urinary tract infection for which he was treated with antibiotics. In November 2008 he presented with right flank pain an MRI study showed bladder mass centered in the right lateral-posterior wall. A radical cystoprostatectomy was performed revealing a 5 cm deeply invasive mass extending into the peri vesicle fat and obliterating the right ureter. The tumor showed metastases to seven of fifteen (7/15) right pelvic lymph nodes and none of the 6 left pelvic nodes. Incidental low grade prostatic carcinoma was also found.

### **LS 272 Fall 08a**

Case 8: 70-years old patient with macrohematuria. Cystoscopy without evidence of tumor or any other suspicious findings. Evidence for stenosis of the upper right ureter with slight congestion of the kidney. Ureteroscopy with biopsy and diagnosis of a papillary non-invasive urothelial carcinoma (G2, high grade acc. WHO 2004). Nephrectomy with resection of the upper ureter. Macroscopically no evidence for a tumor in the kidney or renal pelvis. Papillary stenosing urothelial carcinoma in the ureter 8 cm from the renal pelvis (pTa, G2, high grade acc. WHO 2004). In addition several plaque-like lesions in the ureter (slide 8a). Kidney and renal pelvis (slide 8b).

### **LS 272 Fall 08b**

Case 8: 70-years old patient with macrohematuria. Cystoscopy without evidence of tumor or any other suspicious findings. Evidence for stenosis of the upper right ureter with slight congestion of the kidney. Ureteroscopy with biopsy and diagnosis of a papillary non-invasive urothelial carcinoma (G2, high grade acc. WHO 2004). Nephrectomy with resection of the upper ureter. Macroscopically no evidence for a tumor in the kidney or renal pelvis. Papillary stenosing urothelial carcinoma in the ureter 8 cm from the renal pelvis (pTa, G2, high grade acc. WHO 2004). In addition several plaque-like lesions in the ureter (slide 8a). Kidney and renal pelvis (slide 8b).

### **LS 272 Fall 09**

Case 9: 73-years old patient with microhematuria. At cystoscopy 1.5 cm measuring tumor on the right bladder wall. No other suspicious findings. Transureteral resection of the bladder (slide). After diagnosis radical cystoprostatectomy with diagnosis of an extensive urothelial carcinoma (pT4, pN1, R1) with infiltration of the rectum.

### **LS 272 Fall 10a**

Case 10 71 year old female patient with increasing lower abdominal pain. In CT detection of a tumor in the lower pelvis. Colonoscopy and gastroscopy without pathological findings. Cystoscopy without evidence of tumor or any other suspicious findings. In CT stenosis of the left ureter with renal congestion (Grade 1-2). Diagnostivc laparotomy with insuspicious tuba uterina and ovary but tumor mass in the lower pelvis. Additionally many white peritoneal patches with suspicion for peritoneal carcinomatosis. Extensive tumor debulking with resection of the ileocecum and additional biopsies of the peritoneum (slide 10a). After diagnosis repeat cystoscopy, macroscopically again inconspicuous. Random biopsies of the bladder (slide 10b). Slide 10a: 2 peritoneal biopsies of 2.5 x 1.1 cm.

### **LS 272 Fall 10b**

Case 10 71 year old female patient with increasing lower abdominal pain. In CT detection of a tumor in the lower pelvis. Colonoscopy and gastroscopy without pathological findings. Cystoscopy without evidence of tumor or any other suspicious findings. In CT stenosis of the left ureter with renal congestion (Grade 1-2). Diagnostivc laparotomy with insuspicious tuba uterina and ovary but tumor mass in the lower pelvis. Additionally many white peritoneal patches with suspicion for peritoneal carcinomatosis. Extensive tumor debulking with resection of the ileocecum and additional biopsies of the peritoneum (slide 10a). After diagnosis repeat cystoscopy, macroscopically again inconspicuous. Random biopsies of the bladder (slide 10b). Slide 10b: 0.7 x 0.3 cm bladder biopsies.

### **LS 272 Fall 11**

Case 11: 69 year old male patient with a persistent microhematuria since two weeks. No macrohematuria. Smoking history of 60 pack-years. Cystoscopy: invasive tumor at the left lateral bladder wall. Sonography: renal congestion on the left side. TUR-Bladder (4.5 x 1.4 cm -slide)

### **LS 272 Fall 12**

Case 12: 35 year old patient with macrohematuria. History of urothelial carcinoma of the left ureter six years ago (pTa, G2, low-grade, no invasion). Partial ureterectomy on the left side. Recent cystoscopy: extensive papillary tumors in the entire urinary bladder, resection of the entire tumor not possible with TUR-B. Slide 12a: TUR-B with extensive sampling, 90g. Decision of radical cystoscopy to reach tumor control because of persistent bleeding. Diagnosis in radical cystectomy specimen: extensive papillary urothelial carcinoma of the bladder in all regions of the bladder without evidence of invasion (pTa, G2, low grade according to WHO 2004). Family history: colorectal cancer in the mother of the patient (at age 42). Endometrial carcinoma in the sister of the patient (at age 39).

### **LS 272 Fall 13**

Case 13: 67 year old patient with microhematuria. In cystoscopy 2.2 x 1.8 cm area at the bladder dome with central ulceration and suspicious red-coloured urothelium. Biopsy from this area. After diagnosis partial resection of the bladder. Partial bladder resection (slide) with 3 specimens, together 36.8 g. 3.5 x 2.2 cm measuring urothelial area with red-brown mucosa and 0.8 x 0.3 cm measuring ulceration. On cross sections induration of the submucosa and of the bladder wall.

### **LS 272 Fall 14**

Case 14: 81 year old patient with macro hematuria. In cystoscopy large solid partially ulcerated tumor on the bladder roof. After diagnosis in biopsies cystectomy. Cystectomy specimen with 1.5 cm ureters left and right, 1.6 cm partial resection posterior vaginal wall, 5.3 cm measuring uterus with unsuspecting endometrium. Unsuspecting 4.2 x 1.3 cm right ovary with 9.3 cm right tuba uterine and unobtrusive 3.6 x 1.3 cm left ovary with 7.5 cm tuba uterine. In the bladder 4.5 x 3.5 cm measuring tumor on the bladder roof with brown and partially white appearance on sectioning. The tumor mostly extra-vesical with ulcerations of the urothelium. During sectioning extensive mucinous secretion. Proximal of the tumor 3 cm measuring strand-like tissue with adipose tissue and white induration without microscopically visible lumen. Adjacent 12 x 4.5 cm measuring skin resection with central umbilicus. Slide: tumor bladder roof.

### **LS 272 Fall 15**

Case 15: 85 year old female patient. Cervical cancer 18 years ago (age 67) treated with radiation therapy. Post-operative urethelial fistula with surgical treatment with vesico- cutaneous stoma to the abdominal wall. 14 years after primary surgery diagnosis of a nephrogenic adenoma within the vesico-cutaneous stoma. Now again resection of a tumorous mass at this region. Macroscopically papillary tumorous mass 4 cm in size. Resection of the tumor (approximately 5 g - slide).

### **LS 272 Fall 16**

Case 16: 62 year old patient with microhematuria. In cystoscopy large solid tumor on the right lateral bladder wall. TUR-B (slide). 16 g material. No history of malignancy, previous operations or cystitis.