Common Medicolegal Situations and How to Avoid Them:
Genitourinary Pathology

Jonathan I. Epstein, MD
Professor of Pathology, Urology and Oncology
The Reinhard Professor of Urologic Pathology
Director, Surgical Pathology
Common Medicolegal Situations and How to Avoid Them:  
Genitourinary Pathology  
Jonathan I. Epstein, MD

**Introduction**

Although I am active in the medicolegal arena, fortunately relatively few cases involve pathology error. Furthermore, those cases that have resulted from pathology error do not always reflect the most common overall errors in pathology practice that I see in my consult material. Nonetheless, these examples of pathology errors that have resulted in medical lawsuits provide not only useful information on specific pathologic issues but also general information for the practice of pathology how to avoid lawsuits.

**Common Mistakes in Genitourinary Pathology**

Although not the focus of the topic, it may be useful to pathologists as to what are the most common errors that I have seen covering the spectrum of genitourinary pathology in my practice.

**Kidney**

Within the kidney, one of the more common mistakes I have seen is in the diagnosis of angiomyolipomas which have such prominent adipose component that they are misdiagnosed as well-differentiated liposarcoma. Other angiomyolipomas with a prominent smooth muscle component I have seen misdiagnosed as leiomyosarcoma. In addition, very epithelioid angiomyolipomas with atypia have been misdiagnosed as renal cell carcinoma. Although we receive numerous examples where the differential diagnosis is oncocytoma versus chromophobe renal cell carcinoma, I have not seen mistakes made. This in part, may reflect that even if mistakes are made in this differential diagnosis they do not come to clinical attention. Organ-confined chromophobe renal cell carcinomas, when completely resected, have an almost uniformly favorable prognosis such that if are misdiagnosed as oncocytoma they will rarely result in a lawsuit. Although there have been numerous articles written about the subtyping of renal cell carcinoma, lawsuits relating to this issue are rare in my experience in part because there are no good treatments for any of the types of renal cell carcinoma beyond surgery.

**Bladder**

In the bladder, the most common mistakes I have seen revolve around the diagnosis of carcinoma in situ. It is typically either underdiagnosed or overdiagnosed, as will be discussed later when discussing lawsuits relating to this issue. Other frequent errors that I see in my consult service relate to the grading of urothelial carcinomas, although with the exception noted later in this handout, in general they would rarely result in a medicolegal action. Other common errors dealing with bladder pathology that do not seem to result in lawsuits include the overdiagnosis of carcinoma when, in fact, the lesion represents an inverted papilloma. I have seen numerous examples of polypoid cystitis, which have been misdiagnosed as papillary urothelial carcinoma. In part, these cases may not have resulted in a lawsuit because clinicians are extremely adept at recognizing inflammatory lesions of the bladder as opposed to neoplastic lesions based on their cystoscopic appearance. Consequently, no subsequent harm is brought to the patient when a pathologist erroneously diagnosis papillary urothelial carcinoma because the **© 2005 Jonathan I. Epstein, MD. Materials are used by the CAP with the permission of the faculty.**
Common Medicolegal Situations and How to Avoid Them:
Genitourinary Pathology
Jonathan I. Epstein, MD

Urologist asks for a second opinion when this diagnosis contradicts the cystoscopic impression of an inflammatory process. I have seen several cases involving the diagnosis of invasive carcinoma and its relationship to invading the muscularis propria, one of which resulted in a lawsuit and will be discussed subsequently. Although I have not seen a malpractice lawsuit result from this scenario, I have seen several examples of poorly differentiated prostate adenocarcinoma involving the bladder which were diagnosed erroneously as urothelial carcinoma. Because many of these patients had a history of adenocarcinoma of the prostate, these cases were sent for consultation where, upon additional workup I was able to diagnose infiltrating poorly differentiated adenocarcinoma of the prostate. Given the marked differences in treatment between adenocarcinoma of the prostate and urothelial carcinoma, I anticipate that there are several malpractice lawsuits revolving around this issue that I have not had the opportunity to be involved with. Another situation where I have seen pathology error that had significant implications in terms of patient treatment that I have not seen a lawsuit relating to is the misdiagnosis of small cell carcinoma of the bladder either as a sole component or admixed with urothelial carcinoma, where the entire lesion was erroneously diagnosed as high grade urothelial carcinoma. Although one of the most common cases sent in for consultation is nephrogenic adenoma, I am not aware of a lawsuit relating to the misdiagnosis of nephrogenic adenoma as carcinoma. Similarly, I have seen numerous examples of inflammatory myofiibroblastic tumor, some of which were diagnosed as sarcoma, yet I am not aware of any lawsuits relating to these cases; usually pathologists recognize the unusual nature of the lesion and send it for consultation before patient harm can ensue. Finally, I have seen a few cases of florid colonic metaplasia (cystitis glandularis intestinal type) and endocervicosis which were misdiagnosed as adenocarcinoma, resulting in cystectomy. Although these cases resulted in malpractice action, I was not personally involved with them. The other common lesion sent in for consultation dealing with urothelial lesions is that of nested urothelial carcinoma versus von Brunn’s nests. Although this is one of the more difficult diagnoses in urological pathology, I am not aware of any malpractice cases relating to this issue.

Testis

There are relatively few lawsuits in my experience relating to testicular pathology. In part, the subclassification of testicular tumors beyond seminoma versus non-seminoma has relatively little implication for therapy as the treatment for non-seminomatous germ cell tumors is, in large part, based on clinical findings. Most lawsuits I have dealt with relating to testicular pathology relate to testicular torsion and the delay in its diagnosis. The pathologist has relatively little role in these cases from a diagnostic standpoint. In terms of the consults I receive relating to testicular specimens, these tend to be varied in nature where the pathologist has a question as to the lesion’s diagnosis, yet there is no consistent error in diagnosis in my experience. The most common error I see in my practice is the overdiagnosis of a small focus of choriocarcinoma in a mixed germ cell tumor when, in fact, there are only scattered syncytiotrophoblastic giant cells present. This error would not likely result in a medical malpractice lawsuit as treatment and prognosis of non-seminomatous germ cell tumors is based on clinical findings, including the level of elevation of serum ACG level rather than the histological presence or absence of choriocarcinoma.

© 2005 Jonathan I. Epstein, MD. Materials are used by the CAP with the permission of the faculty.
Common Medicolegal Situations and How to Avoid Them:  
Genitourinary Pathology  
Jonathan I. Epstein, MD

Penis

The most common lesions sent for consultation relating to the penis are in verrucous lesions and distinguishing verrucous hyperplasia versus verrucous carcinoma versus squamous carcinoma, either alone or arising in verrucous carcinoma. Nonetheless, I am not aware of lawsuits relating to this issue.

Prostate

The most common benign mimicker of prostate cancer that has resulted in malpractice is nonspecific granulomatous prostatitis, which is discussed subsequently. In contrast, the most common benign mimicker of prostate cancer sent in for consultation is partial atrophy, although I have not been personally involved in a case of partial atrophy overdiagnosed as cancer resulting in malpractice. Other mimickers of prostate cancer that I have seen misdiagnosed yet not result in a lawsuit include the overdiagnosis of urothelial carcinoma on needle biopsy where the lesion represented a prostatic infarct with reactive urothelial/squamous metaplasia. Although the distinction of radiated benign prostate tissue versus carcinoma is one that is a frequent source of consultation, I have not seen pathology error relating to this differential resulting malpractice. In part, this may result from pathologists recognizing their difficulty with this issue and sending it off for consultation and in part may reflect that often, even if carcinoma is diagnosed post-radiation, nothing further in terms of surgery is performed. Additional mimickers of prostate cancer that I have had experience with resulting in a medical malpractice lawsuit are discussed subsequently.

I am aware of multiple cases of small foci of adenocarcinoma of the prostate on needle biopsy that have been underdiagnosed. Whereas some of these have gone on to lawsuit, others have not, in part because of the relatively indolent growth of prostate cancer such that, in some cases, a couple of years’ delay in diagnosis does not result in any patient harm.

I have not personally been involved in a malpractice case where the pathologist has been sued as a result of grading error. However, I am aware of a case where a pathologist diagnosed a needle biopsy as Gleason score 3+3=6 and the patient was put on expectant (watchful waiting) management. The patient subsequently progressed several years later and upon review of the initial needle biopsy was found to have Gleason score 3+4=7 prostate cancer. The pathologist was sued for undergrading the needle biopsy since recognition of Gleason score 3+4=7 cancer in the initial diagnosis would have resulted in definitive therapy rather than expectant management. However, given the subjectivity involved in grading, unless the grading error was flagrant, it would be difficult in my opinion to have a successful lawsuit relating to this issue.
Common Medicolegal Situations and How to Avoid Them:
Genitourinary Pathology
Jonathan I. Epstein, MD

Pathology Error Resulting in the Clinician Being Sued

In some cases, pathology error can result in lawsuits against other healthcare providers. Although in these cases it is unlikely for the pathologist to be sued, pathologists can nonetheless be drawn into legal proceedings. Furthermore, in these cases the pathologist would have to live with the knowledge that the error caused other physicians to endure the nightmare of a lawsuit.

I have seen several cases where there was no residual tumor in a radical resection, which is termed “stage p0”. These have included radical prostatectomy specimens, radical cystoprostatectomy specimens, and nephrectomy specimens. In these cases, clinicians have been sued as “there must have been a mistake” if major surgery was performed and no cancer was present. Although in some of these cases, there indeed was no residual tumor which is a recognized phenomenon following initial resection or even biopsy, in some cases there was residual cancer yet the pathologist did not identify it. First, pathologists should completely and thoroughly sample resection specimens to rule out residual tumor. In bladder specimens, this includes embedding any mucosal abnormality such as subtle reddened velvety mucosa which may reflect CIS, in addition to the entire biopsy site. When a radical prostatectomy specimen shows no residual tumor first the pathologist should review the original needle biopsy to ensure that the diagnosis of carcinoma is accurate. Subsequently, the pathologist should totally embed the prostate if it has not already been done. Situations where the location of the cancer on needle biopsy is known (i.e. left apex or left) the pathologist should cut down times three the posterior sections in this region. If there is no cancer identified then these blocks should be flipped and an additional three levels should be performed. If after all of these procedures no cancer is found, the radical prostatectomy specimen should be signed out as expediently as possible. In cases where we do not find cancer in the radical prostatectomy or maybe find only limited foci, we add the following in a comment at the end of the report to explain to the clinician and patient that this scenario does not necessarily reflect pathology error. The note is as follows: “In the era of PSA screening, we have seen an increased number of radical prostatectomies with minute prostate cancers that are difficult to identify. More rarely, we have seen radical prostatectomies without identifiable cancer (Am J Surg Pathol, 1997;21:174-8). We have demonstrated using molecular satellite marker analysis that in almost all cases of “vanishing cancer” in radical prostatectomy specimens it reflects a chance sampling of a minute cancer and not a switch in specimens (Am J Surg Pathol 29:467-473, 2005).” Pathologists should be considerate of other physicians involved in a case and think of the consequences of their report. If possible, pathologists should add a comment that could potentially avoid a lawsuit as long as that statement is correct.

The most common situation where I have been involved in medical malpractice cases is to defend cases brought against clinicians as the result of mishandling of serum PSA values. This includes cases where the PSA test was never ordered, ordered but the laboratory did not run the test, the lab ran the test but the PSA data was lost by the clinician, or the clinician did not act appropriately on the elevated PSA value. Typically as a result of mishandling of the PSA test, there was a delay of one to one-and-a-half years following which the patient presented with advanced prostate cancer. The key issue is whether the diagnosis made 1-1.5 years earlier made a difference and, if not, then the clinician is not liable. A large part of the case revolves around the grade found on the eventually diagnosed cancer. If the grade is Gleason score 8-10, the patient would unlikely be cured even if it was diagnosed earlier. As high grade prostate cancers
are often cytologically bland, there is a tendency for pathologists to undergrade prostate cancer. Undergrading cancers falsely raises the expectations of the patient and eventually the plaintiff’s attorney that the cancer would have been curable if it had been diagnosed earlier. An accurate assignment of high grade cancer by the pathologist on the initial specimen could have avoided the lawsuit.

The other case where I have seen pathologist error contribute to a clinician being sued relates to the use of the term “acute prostatitis” on a TURP specimen. In the case I was involved with the patient developed strictures and other complications following TURP necessitating a radical cystoprostatectomy. The urologist was sued for doing the TURP, as it is typically contraindicated in the case of acute prostatitis because of the risk of sepsis. The pathologist should be attuned to the careful use of terminology. Seemingly inconsequential differences in verbiage can make crucial differences in terms of patient treatment.

Pathology Error Resulting in Pathologists Being Sued

Kidney

A prominent pathologist from a well known academic center was sued as the result of missing vascular invasion in a clear cell renal cell carcinoma at nephrectomy. The suit revolved around an alleged denying of the patient a potential benefit in an experimental protocol for immunotherapy. The gross specimen was handled by a medical student. In the case, no adrenal gland was found despite the surgeon claiming that it had been removed. In addition, there were other, less serious inconsistencies in the gross description. Although this case is relatively weak in that it is hard to claim harm due to the pathology error, it demonstrates that you never know when errors may lead to a lawsuit and one must take care with all specimens. In addition, it demonstrates the importance of paying attention to grossing of the specimen and the gross pathology report. Even though errors in the gross handling of the specimen and in the gross report do not necessarily form the basis of the lawsuit, they can end up making a pathologist look careless and incompetent and contribute to a successful lawsuit. Furthermore, this case demonstrates that anyone can get sued regardless of their reputation or institution.

The other kidney tumor that I am familiar with resulting in a medical malpractice lawsuit was that of a case diagnosed as poorly differentiated renal cell carcinoma when the correct diagnosis was poorly differentiated urothelial carcinoma. Given that there are no good treatments for renal cell carcinoma yet there are effective chemotherapy treatments for urothelial carcinoma, there was an alleged delay in appropriate treatment. This case illustrates the importance in accurately diagnosing undifferentiated carcinomas. One cannot assume they are necessarily the most common neoplasm to be found in that organ. For example, when a patient presents with a poorly differentiated tumor in the kidney, one thinks of renal cell carcinoma, but as this case illustrates that may not be the correct diagnosis. An even more common situation that I have encountered, although I have not been involved in a lawsuit resulting from this error, is the differential diagnosis relating to poorly differentiated adenocarcinoma of the prostate versus poorly differentiated urothelial carcinoma. Given the marked differences in treatment between these two entities, it is critical to attempt to diagnose them accurately using immunohistochemical stains. The battery of stains that I use in this differential include high molecular weight cytokeratin, thromobomodulin, and PSA. Although I often run cytokeratins
& 20, these stains are usually non-contributory. The exception is a tumor that is CK7 negative which would be highly unlikely to be urothelial carcinoma.

Bladder, Ureter, Renal Pelvis

Probably the most important diagnosis in urothelial neoplasms is the diagnosis of muscularis propria (detrusor muscle) invasion as this diagnosis typically results in radical cystectomy. Tumors can invade the lamina propria which contains with the smooth muscle bundles of the muscularis mucosae where in some cases it may be difficult to distinguish them from muscularis propria. In addition, extensive high grade infiltrating urothelial carcinoma can invade the muscularis propria and destroy the muscle bundles to an extent where it may be difficult to recognize their presence. A malpractice case I was involved with was diagnosed as “malignant consistent with papillary TCC grade 2/4. Extension into lamina propria with invasion of smooth muscle.” The microscopic description stated “Groups of malignant transitional epithelial cells are also seen extending into lamina propria and indeed are even seen to be surrounding bundles of smooth muscle fibers.” It is critical when signing out a case of urothelial carcinoma which invades the muscularis propria to make the diagnosis as clear as possible. In my reports, I used the term “muscularis propria (detrusor muscle) invasion” so that there is no potential for miscommunication with the urologist. Many urologists only know the muscularis propria as the term “detrusor muscle.” If I see tumor invading into the lamina propria involving the wispy muscles of the muscularis mucosae, typically I will not mention it in the pathology report as I am afraid it may be misconstrued by the urologist. Furthermore, pathologists should not use the term “superficial muscle” to denote the muscularis mucosae as clinicians will infer the term “superficial muscle” to be the inner half of the muscularis propria. There are some cases where the pathologist will be unsure if it is muscularis mucosae or muscularis propria invasion, either because of hyperplastic muscularis mucosae bundles, cautery artifact, or extensive tumor disrupting the muscularis propria breaking it into small muscle bundles. In these cases, the pathologist should convey this uncertainty to the clinician and suggest additional tissue sampling. It is critical for pathologists to use precise, unambiguous terminology and to use synonyms when possible. One should assume the clinicians do not know pathological terms and provide them with, in addition, terms that they may be more familiar with.

Probably the most common pathology error resulting in medical malpractice lawsuits that I have been involved with in the bladder is the underdiagnosis and overdiagnosis of CIS. It is difficult for pathologists to recognize CIS for several reasons. First, CIS is not always full-thickness in its atypia in contrast to the uterine cervix. Malignant cells of any quantity in the urothelium are diagnostic of CIS. CIS cells also show a range in degree of pleomorphism. Prominent denudation can also result in only isolated CIS cells being present, which are difficult to diagnose. Also on limited biopsies one may not have normal urothelium to compare to the abnormal cells; without a reference to normal tissue, where all of the cells appear normal, CIS can be underdiagnosed as benign. In cases where there is no normal urothelium to compare to, we have demonstrated that CIS cells are approximately four to five times the size of stromal lymphocytes. In contrast, normal urothelial cells are approximately twice the size of stromal lymphocytes. CIS may be accompanied by inflammation such that pathologists may attribute the atypia to reactive changes. Nuclear size in and of itself is not helpful in the differential of
reactive urothelial atypia from CIS as reactive urothelial cells may be quite enlarged. In contrast to reactive urothelial atypia, CIS cells are not only large but show hyperchromatic nuclei accompanied by mitotic activity and discohesion. In difficult cases, pathologists may utilize immunohistochemical stains for CK20 and p53. In my experience, this has been helpful in several cases, although not all. Whereas normal urothelium and reactive atypia shows only the umbrella cell layers to be positive for CK20 and there is an absence of p53 staining, CIS and dysplasia show numerous p53 positive cells as well as full-thickness CK20 immunostaining.

I have also been involved with a case where the patient had a history of urothelial carcinoma involving the bladder. As is commonly the case, the urologist performed a biopsy of the prostatic urethra to rule out extension of disease to the prostatic ducts and acini. Benign urothelial metaplasia of the prostatic ducts and acini was misdiagnosed as CIS involving the prostatic ducts leading to an unnecessary cystoprostatectomy.

Another case involving urothelial neoplasia resulting in a medical malpractice lawsuit was the underdiagnosis of a case of infiltrating urothelial carcinoma. The patient progressed to small cell carcinoma of the bladder several years later. In this case, several fragments of tissue showed a cellular process, which was interpreted as granulation tissue. These areas were extremely difficult to evaluate due to thermal injury. Focally, there were identifiable carcinoma cells, some with signet ring cell features. Other areas showed a cellular stromal infiltrate mimicking inflammatory cells. These cells, however, were isolated individual carcinoma cells with bland cytology. This case illustrates that cautery artifact can obscure individual cells of poorly differentiated urothelial carcinoma. In addition, occasionally isolated cells of urothelial carcinoma may be relatively bland. In cases where a cellular stromal process is identified, immunostains with cytokeratins can help resolve the issue.

I have been involved in one case where the grading of urothelial carcinoma was the key issue. This was a case of a patient with a prior history of low grade noninvasive tumor of the renal pelvis. This patient had already lost one kidney due to carcinoma. The specimen in question was that of a recurrent renal pelvic tumor which was diagnosed as high grade noninvasive papillary urothelial carcinoma. Because of the apparent progression of grade within the renal pelvic tumor, radical nephroureterectomy was performed. Although architecturally the lesion did not appear to be high grade there were numerous mitotic figures such that I felt the diagnosis was justified. However, this case was difficult and some individuals might have considered it to be borderline in grade. The lesson in this case is that one has to be extremely careful with the diagnosis and grading of renal pelvic lesions. Lesions of the renal pelvis are almost by definition very scant and often have a crush artifact. I have seen numerous cases where renal pelvic tumors have been diagnosed by pathologists as carcinoma which were merely strips of distorted urothelium. Whereas the distinction between low and high grade noninvasive papillary urothelial carcinoma of the bladder does not typically result in radical surgery, in the renal pelvis it may. Only those cases that convincingly show high grade morphology should be diagnosed as high grade carcinoma. Also, just because the grading system is dichotomized into low and high grade categories one can make exceptions and state that the lesion is borderline in some cases.
Common Medicolegal Situations and How to Avoid Them:
Genitourinary Pathology
Jonathan I. Epstein, MD

Penis

The only case that I have been involved with as a medical malpractice lawsuit relating to the penis was that of a circumcision specimen in an adult which was not inked despite a lesion being noted at gross examination. A diagnosis of squamous cell carcinoma in situ was diagnosed yet the status of the margins was left ambiguous on the pathology report. Subsequently, the urologist did not perform a wide excision and the patient developed invasive carcinoma at the site of the prior surgery. Both the urologist and the pathologist were sued. The lesson from this case is that the pathologist should be very liberal in inking resection specimens. There is virtually no downside to inking a specimen. I have seen numerous cases where unsuspected tumor was present where one could not state with certainty what the margins of resection were because the specimen was not inked. In cases where the pathologist is not certain as to the status of the margins of resection, this should be communicated in the pathology report and discussed with the clinician. In addition, it is often helpful to have such phrases as “Consideration should be given to re-excise” when dealing with such specimens.

Prostate

I have seen several cases where due to operational error misdiagnoses have resulted. These have included the diagnosis written on the wrong paperwork where a patient without prostate cancer was called cancer and a man with cancer was not diagnosed as malignant. Other cases have involved mislabeling of slides in the laboratory. In one such case, a part with high grade carcinoma from one patient was inadvertently labeled with the case number of a different patient. Other cases have revolved around contamination of tumor from one case to another. These cases illustrate the importance of developing a routine with double and triple checks to ensure that such operational errors do not occur. Ideally, one should not accession back-to-back specimens of the same type. In addition, laboratory technicians should only work on one case at a time. Pathologists should also have a heightened awareness for incongruous specimens. These would include cases where the entire case is benign except for one core with extensive high grade carcinoma. Although I have seen cases where this situation was, in fact, not due to pathology error, it is unusual enough that it could raise the possibility of switched specimens. Finally, if there is a question as to whether tissue belongs to a patient, genetic testing with microsatellite analysis can be performed.

I have seen several examples of overdiagnosis of prostate cancer resulting in medical malpractice lawsuits. These have resulted from diverse mimickers of prostate cancer. The most common mimic resulting in a medical malpractice in my experience is nonspecific granulomatous prostatitis misdiagnosed as high grade prostate cancer. There are several reasons why this lesion is likely to be misdiagnosed. First, clinically they are often very suspicious for cancer with elevated serum PSA levels, and indurated prostate on digital rectal exam suspicious for carcinoma, and ultrasound findings typical of carcinoma. Whereas most cases of nonspecific granulomatous prostatitis do not closely mimic carcinoma, a variant consisting of epithelioid cells can closely mimic high grade cancer. Unless pathologists are aware of this variant, misdiagnoses may be rendered. In one of the cases I was involved with, the pathologist performed stains for PSA, which was diffusely weakly positive throughout the case. This stain was then used to support the diagnosis of adenocarcinoma. However, weak diffuse staining is
often nonspecific and an artifact. In addition to doing stains one expects to be positive, one should perform stains expected to be negative. In this case, had the pathologist performed a stain for CD68, the pathologist would have been surprised as the entire lesion would have been strongly positive, indicating its granulomatous nature.

Another lesion overdiagnosed as prostate cancer resulting in medical malpractice that I have seen is a small focus of basal cell hyperplasia. Basal cell hyperplasia may show prominent nucleoli, mimicking prostate cancer. Architecturally, this focus stood out in contrast to the surrounding benign prostate tissue. One must be aware that mimickers of prostate cancer may architecturally closely resemble cancer, but other features point to their benign nature. In this case, the multilayering of the cells, with some of the nests appearing solid, rules out prostate cancer.

Another case resulting in malpractice that was extremely difficult was diagnosed as adenocarcinoma of the prostate with subsequent radical prostatectomy showing no tumor. This specimen’s difficulty was compounded by crush artifact, resulting in a distorted small glandular proliferation. These glands were negative for high molecular weight cytokeratin, contributing to the diagnosis of carcinoma. Because of the suboptimal histological preparation, one has to be careful in diagnosing carcinoma. There are also numerous pitfalls with immunohistochemistry using both basal cell markers and AMACR (racemase). These include the realization that negative basal cell staining does not equal cancer. Several mimickers of prostate cancer in particular show an absence or very patchy basal cell staining such as partial atrophy and adenosis. Also, some cancers may nonspecifically stain with basal cell markers, yet not showing the basal cell distribution associated with benign glands. Pitfalls of AMACR include positivity in mimickers of cancer, including adenosis, partial atrophy, nephrogenic adenoma, as well as high grade PIN. In addition, limited foci of adenocarcinoma may be negative for AMACR.

One may even be sued if one correctly diagnoses a small focus of adenocarcinoma where the subsequent radical prostatectomy shows no tumor. This is especially the case if another pathologist reviews the slides diagnosed as carcinoma and is unable to come up with a definitive malignant diagnosis. Although eventually the likelihood is that the pathologist who established a correct diagnosis of carcinoma will be removed from the lawsuit, it is prudent in diagnosing very difficult cases to get a second opinion.

In terms of underdiagnosing prostate cancer resulting in a lawsuit, one case related to a radical prostatectomy specimen where a small metastasis to a pelvic lymph node was missed. I have seen several cases where the underdiagnosis of limited prostate cancer on needle biopsy resulted in a delayed diagnosis and an alleged decreased opportunity for cure. All these cases emphasize the importance of recognizing limited adenocarcinoma of the prostate on needle biopsy. One of these cases was an example of foamy gland carcinoma, which has deceptively bland nuclei. Carcinomas resembling benign glands such as foamy gland carcinoma, pseudohyperplastic carcinoma, and atrophic carcinoma are particularly difficult to diagnose and to distinguish from benign. It is incumbent upon pathologists to identify atypical foci and work these cases up either with special stains, second opinion from a colleague, recommending a repeat biopsy, or sending the case off for consultation.
Conclusions

Certain recurrent lesions pathologists should be aware of that are at high risk for error and subsequent lawsuits. Knowledge of these situations can hopefully minimize the likelihood of such errors occurring in the future. In addition, there are general principles that can be gleaned from these isolated cases that can help pathologists avoid errors resulting in malpractice action.
General References

Eble JE, Sauter G, Epstein JI, Sesterhenn IA. Pathology & Genetics: Tumours of the Urinary System and Male Genital Organs. IARC Press. 2004


Epstein JI, Yang XJ. Prostate Biopsy Interpretation. Lippincott Williams Wilkins. 3rd Ed. 2002.
