

Endosalpingiosis: Incidental or Important?

Madeleine Peters, West Virginia University

Background:

Endosalpingiosis is a rare, usually benign gynecological condition in which cystic glands lined with ciliated glandular epithelium normally seen in the fallopian tubes implant on extra-tubal sites.^[3] There are multiple theories about the etiology, but most experts consider it to be the result of peritoneal metaplasia or a consequence of mechanical trauma, such as a C-section or prior hysterectomy.^[1] There are currently no diagnostic or treatment guidelines for this disorder, and most cases are found incidentally. However, new research has shown that people with endosalpingiosis are more likely to be diagnosed with endometriosis, as well as uterine and ovarian cancer.^[4] The symptoms of endosalpingiosis can mimic those of endometriosis or ovarian cysts, leading to misdiagnoses. Additionally, they can cause symptoms and gross morphology similar to those of ovarian cancer, so histological assessment of these specimens is crucial for diagnosing this disorder.

Clinical Presentation:

The patient from this case is a 43-year-old woman who presented with severe, chronic pelvic abdominal pain that had been going on for several months. She had a prior hysterectomy and a history of ovarian cysts, so initially the pain was thought to be caused by another cyst. There was evidence of a mass on CT on the right ovary. She has no prior history of cancer or endometriosis.

Gross Description:

Part 1 consists of a small tan-white, semi-firm nodule and attached adipose tissue that measures 1.5 x 1.0 x 0.8 cm. The specimen is submitted entirely in cassette 1A.

Part 2 consists of a 6.5 x 0.7 cm tan-pink, smooth appendix. The specimen is serially sectioned to reveal a patent lumen filled with scant fecal material and an average wall thickness of 0.3 cm. The mucosal wall is tan-pink and smooth. The bisected tip and representative cross sections are submitted in cassette 2A.

Part 3 consists of a 4.0 x 0.5 cm fimbriated fallopian tube. The outer surface is tan-pink and smooth, and the specimen is serially sectioned to reveal a patent lumen and tan-pink mucosa. The bisected fimbriae and representative cross sections are submitted in cassette 3A.

Part 4 consists of a 5.4 x 4.0 x 2.2 cm tan-white, cerebriform ovary and an attached tan-pink, 3.5 x 0.6 cm fimbriated fallopian tube. The outer surface of the fallopian tube is tan-pink and smooth, and is serially sectioned to reveal a patent lumen and tan-pink mucosa. The ovary is serially sectioned to reveal a well circumscribed, 2.0 x 2.0 x 1.5 cm cyst filled with gray-white, friable debris and calcified tissue fragments.

Cassette Key:

4A: Fallopian tube, bisected fimbriae and representative cross sections

4B-4D: Ovary, representative cross sections to include entire cyst

Part 5 consists of a 2.5 x 2.2 x 0.9 cm portion of tan-pink, smooth soft tissue. The specimen is serially sectioned to reveal uniform tan-pink cut surfaces. The specimen is entirely submitted in cassette 5A.



Figure 1. Histology of endosalpingiosis to show ciliated columnar epithelium. ^[2]

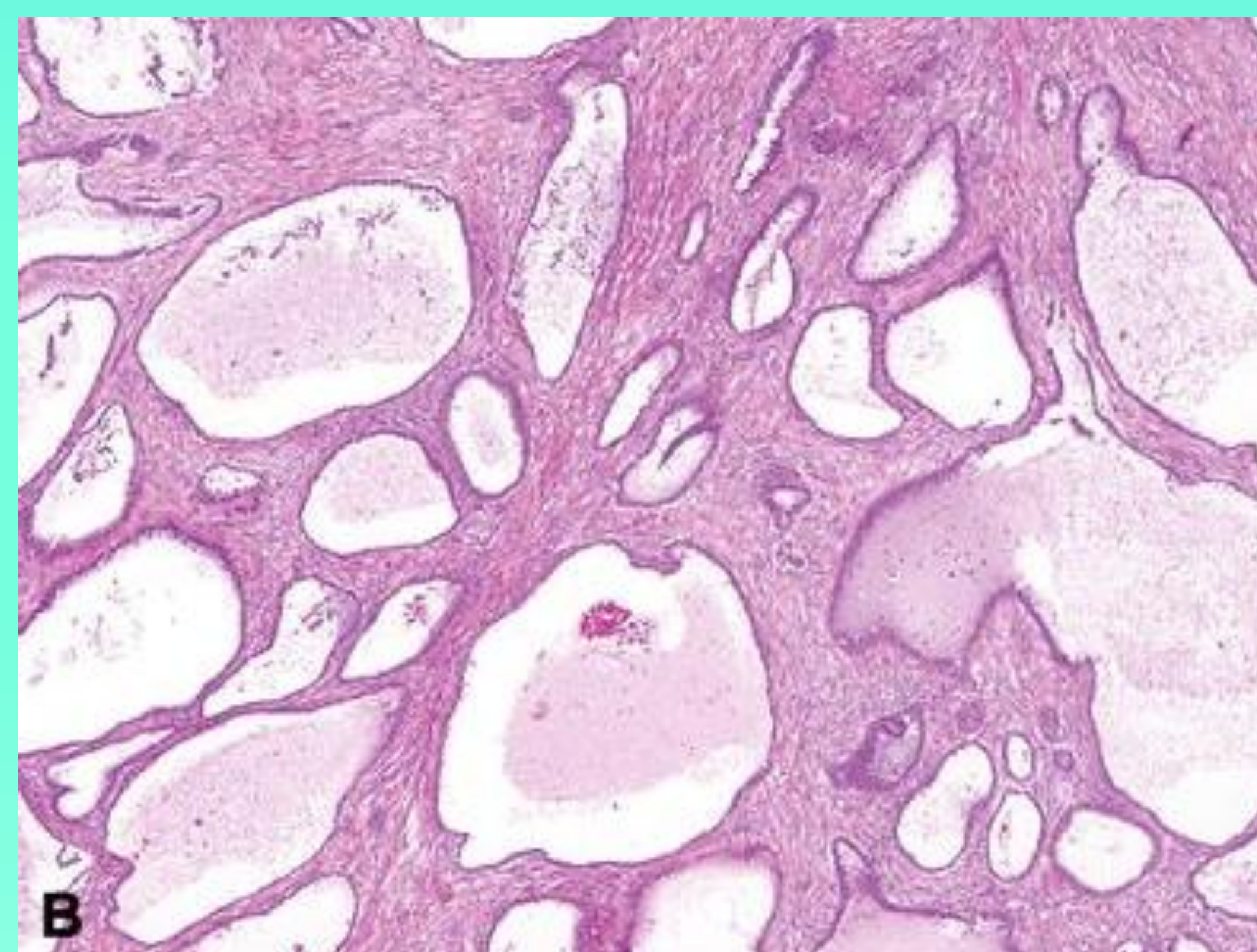
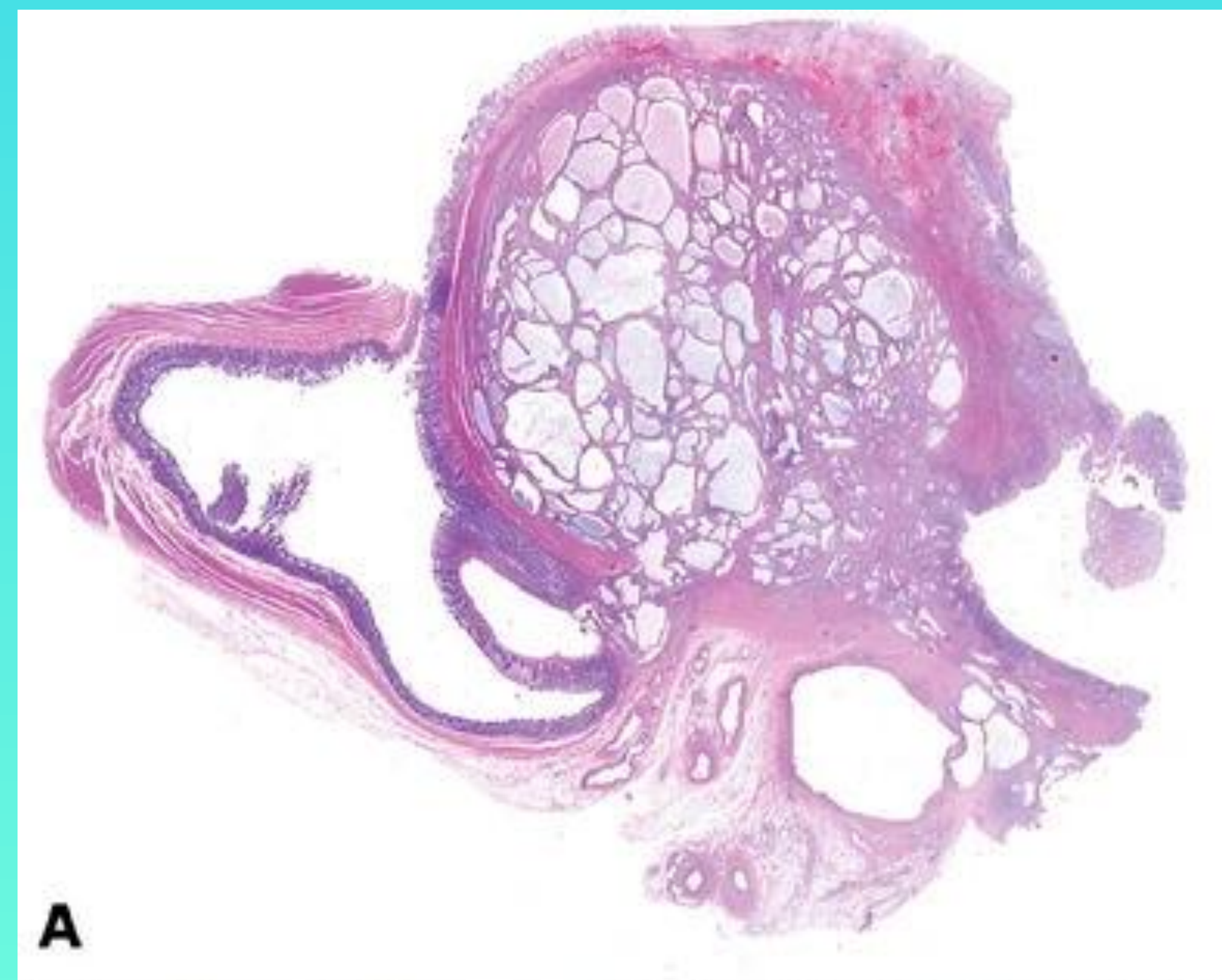


Figure 2. Florid cystic variant of endosalpingiosis mimicking a colonic polyp. While benign, this lesion caused colonic obstruction and abdominal discomfort in the patient. ^[5]

Final Diagnosis:

Part 1: Peritoneal nodule, excision

Benign fallopian tube tissue

Part 2: Appendix, appendectomy

Appendix within normal limits

Part 3: Left fallopian tube, salpingectomy

Benign fallopian tube tissue

Part 4: Right adnexa, salpingo-oophorectomy

Mature cystic teratoma (dermoid cyst)

Benign fallopian tube tissue with paratubal cyst

Part 5: Left pelvic side wall soft tissue, excision

Endosalpingiosis

Conclusion:

Thankfully, in this case endosalpingiosis turned out to be a benign condition for the patient. But while there was no malignancy, the patient was still experiencing pain and discomfort, vague symptoms that often require invasive procedures to discern the cause of. There is still much research to be done on endosalpingiosis and its correlation to pelvic pain, endometriosis, and gynecological cancers, but hopefully this research continues to grow. Endosalpingiosis could contribute to the pelvic pain many people experience but have yet to receive an official reason for why. An estimated one in three females will suffer from a gynecological health issue, and yet only 2.5% of public-funded medical research is dedicated to reproductive health.

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A Pathologists’ Assistant’s Gross Description Expedites the Diagnosis of an Uncommon Benign Multicystic Tumor in the Adult Kidney: A Case Report and Review of the Literature

Steven Suvalsky MHS, PA(ASCP)* and Larry Anderson M.D.** Iowa Health-Des Moines* and Iowa Pathology Associates**, Des Moines, IA 50309

Abstract:

The Pathologists’ Assistant’s (PA’s) gross descriptions are essential to the pathologist for the differential diagnoses of both benign and malignant tumors. For example, concise, gross descriptions are extremely important in multicystic renal tumors in adults. When the PA recognizes and describes specific tumor features in these cases, the pathologist can diagnose both intraoperative and final reports more efficiently.

Descriptive names for encapsulated multicystic renal tumors arise from a spectrum of histologic findings and numerous theories of pathogenesis. The **Multicystic Nephroma** or **Multilocular Cystic Nephroma** described in this case report is one such uncommon, but specific benign tumor that can present at any age and is recognized by gross appearances. Histologic examination of this Multicystic Nephroma was identical to the microscopic features cited in the literature reviewed.

This benign tumor was expected as the gross description suggested and followed microscopic verification from the sections selected by the PA.

Background:

The pathologists’ assistant (PA) is an intensively trained allied health professional who provides anatomic pathology services under the direct supervision of a pathologist (1). Valuable experience occurs on a daily basis both on the surgical pathology bench and in the autopsy room. Gross examination and feed-back of the final diagnoses between the PA and attending pathologist create a valuable partnership of gross recognition and microscopic verifications. When gross descriptive communication and microscopic verification are utilized, time-consuming dictations and voluminous sections can be avoided. The utilization of pathologists’ assistants in histopathology has been shown to expedite diagnoses and ultimately enhance patient care (2).

The case is a 64 year old caucasian male who was hospitalized for lower extremity claudication. His past medical history was generalized arteriosclerotic heart disease and peripheral vascular disease. A 12 cm. solitary cystic mass on an abdominal CT scan was found in the mid portion of his left kidney during workup. A left nephrectomy followed with histopathologic examination of the mass (Fig 1-3).

The gross appearance of the solitary and multiloculated cystic mass was unlike that of a multiloculated renal cell carcinoma or a diffuse process such as polycystic kidney (PKD) disease. The diagnosis was a **Multicystic Nephroma**, a benign cystic tumor of the left kidney. There was no additional tumor treatment required following the nephrectomy.

Rationale and Hypothesis:

The pathologists’ assistant is a highly skilled professional responsible for the gross examination and dissection of histopathologic specimens: This includes measurements, recognition of normal and abnormal features, further dissection and the selection of specific lesions/areas for microscopic examination. Additional examinations by this professional may include specimen photomacrography, review of the patient’s past medical history, review of the clinical consultations and review of laboratory tests and radiologic reports.

The multiloculated cystic mass was well delineated without evidence of invasion into adjacent and preserved renal tissue. There was dilatation of the renal pelvis and thickness of the ureter without a ureteral obstruction or mass.

Methodology:

The gross examination of the left nephrectomy utilized a routine and established procedure as for any specimen received by the PA under the supervision of the pathologist. i.e. margins inked, specimen oriented and measured, photographed, weighed and examined both fresh and following 10% buffered formalin fixation.

Results:

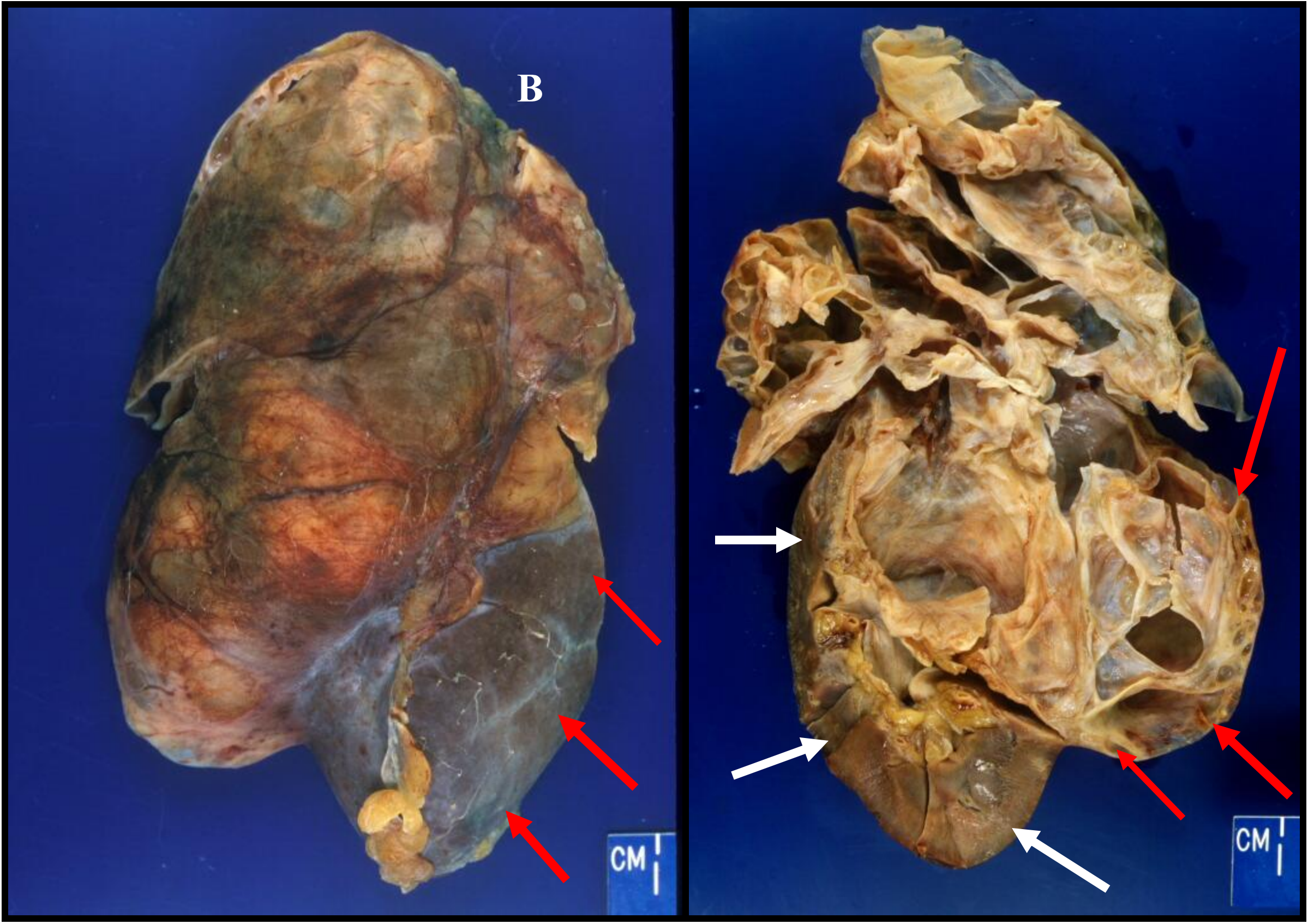


Figure 1. Photomacrographs of the left kidney. (L/R). **A.** Perinephric fat margins with multifocal loculations and a dilated pelvis. **B.** The cut surface of the kidney demonstrating a solitary (13 cm.) multiloculated cystic mass. Note the normal, preserved parenchyma in the lower lateral portions including the lower pole (white arrows) and the dilated pelvis (red arrows).

Gross Description: “labeled left kidney is an 18 cm. in maximum dimension portion of fat (perinephric) without adrenal tissue or nodules. There is a 15 X 14 X 9 cm. distorted kidney within this fat. An area of multiloculated and well delineated distended kidney spans 13 cm. in maximum dimension including distention of the pelvis suggestive of hydronephrosis. The loculations are smooth with clear colorless fluid to gelatinous material contents. The remaining kidney is unremarkable with smooth cortices and slightly blunted papillary tips. The corticomedullary junctions are well delineated. The ureter is thick-walled. The pelvoureteral junction is patent with a 1 mm. in diameter probe. There are no mass lesions or excrescences in the pelvis or ureter. The vascular margins are unremarkable.”

Microscopic log:

A1. Vascular and ureteral margins.
A2-4. Selected multiloculated area.
A5. Normal, preserved kidney.

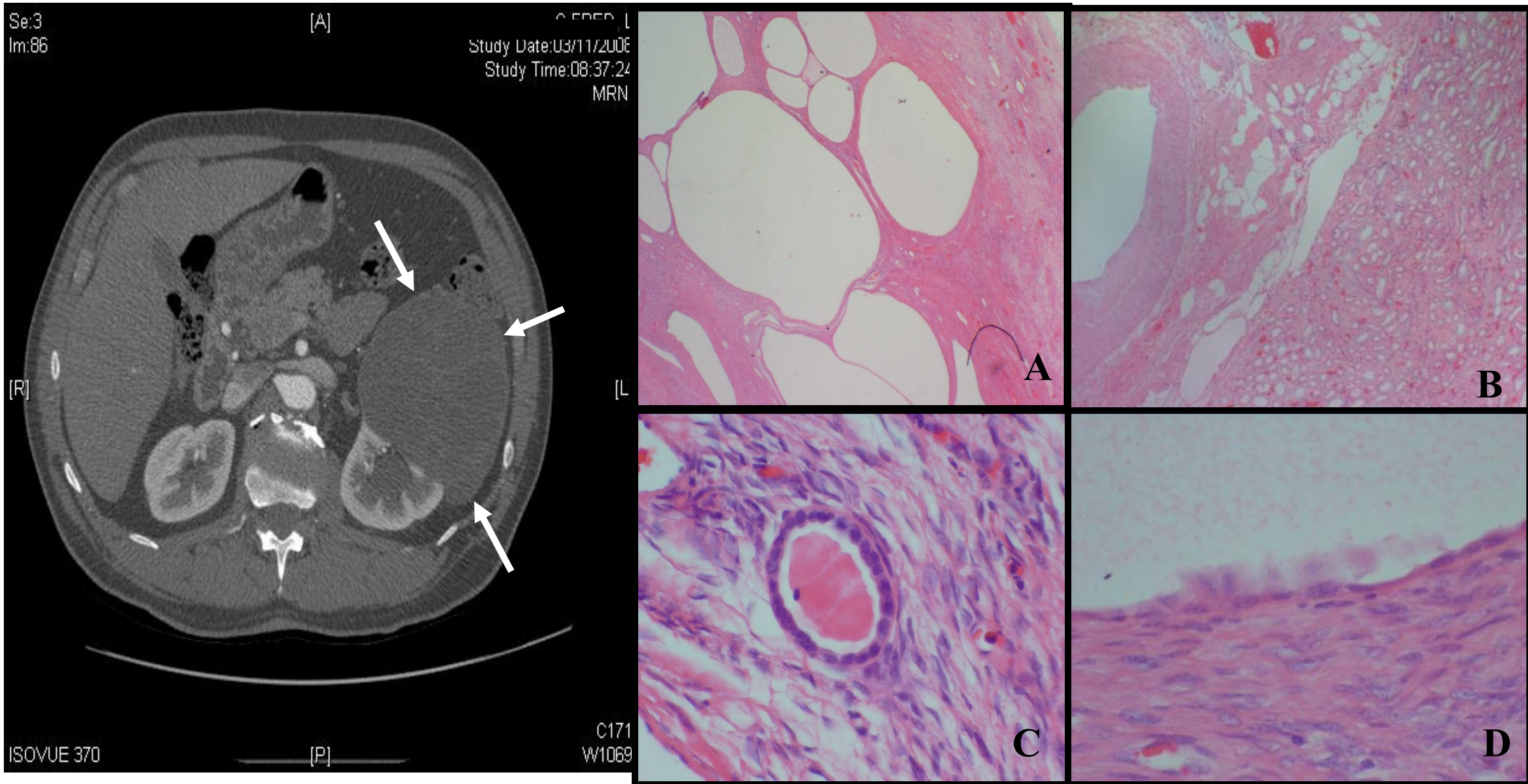


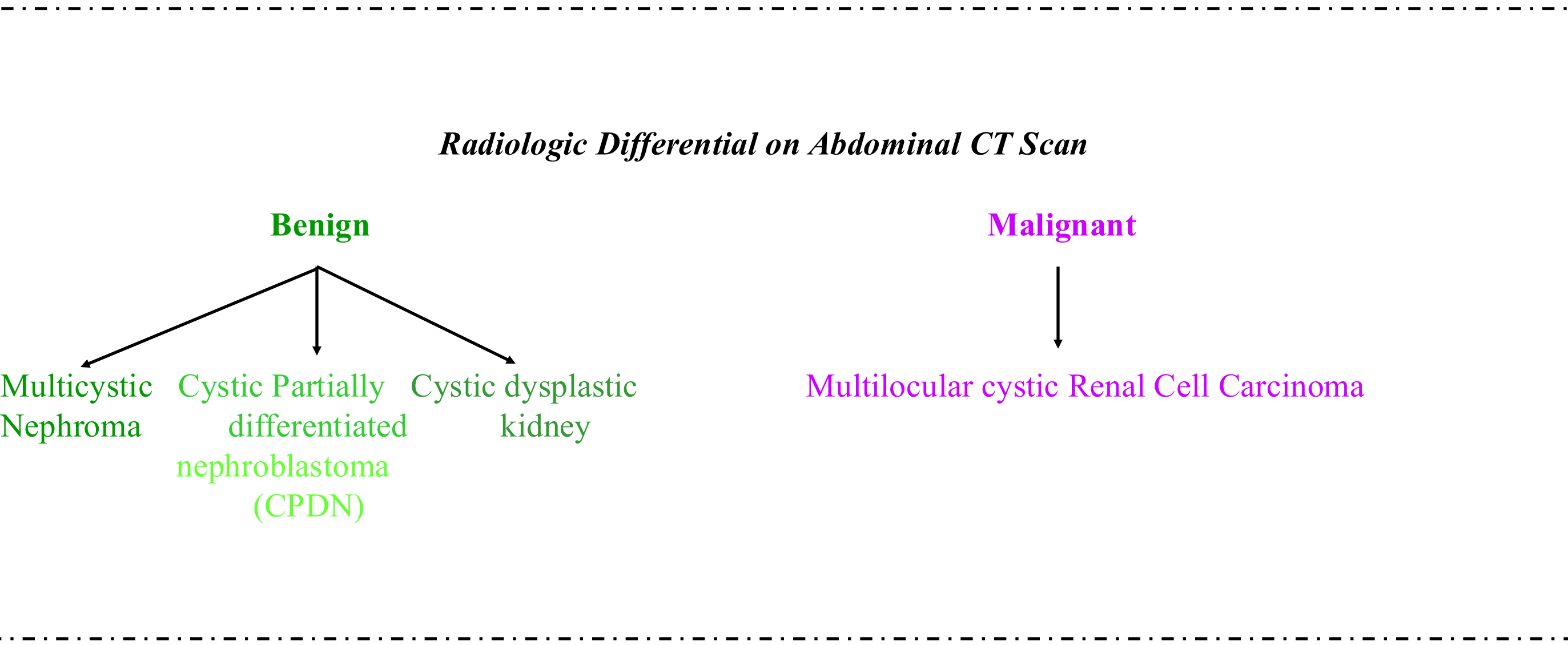
Figure 2. Abdominal CT scan demonstrating a cystic abnormality of the left kidney (arrows).

Figure 3. Photomicrographs (L to R.) **A.** H&E 10X of loculations with fibrous stroma. **B.** H&E 4X of juncture with normal kidney. **C.** H&E 40X of preserved tubule within a fibrous septa. **D.** H&E 100X lining of a locule with cuboidal epithelium “hobnail appearance”.

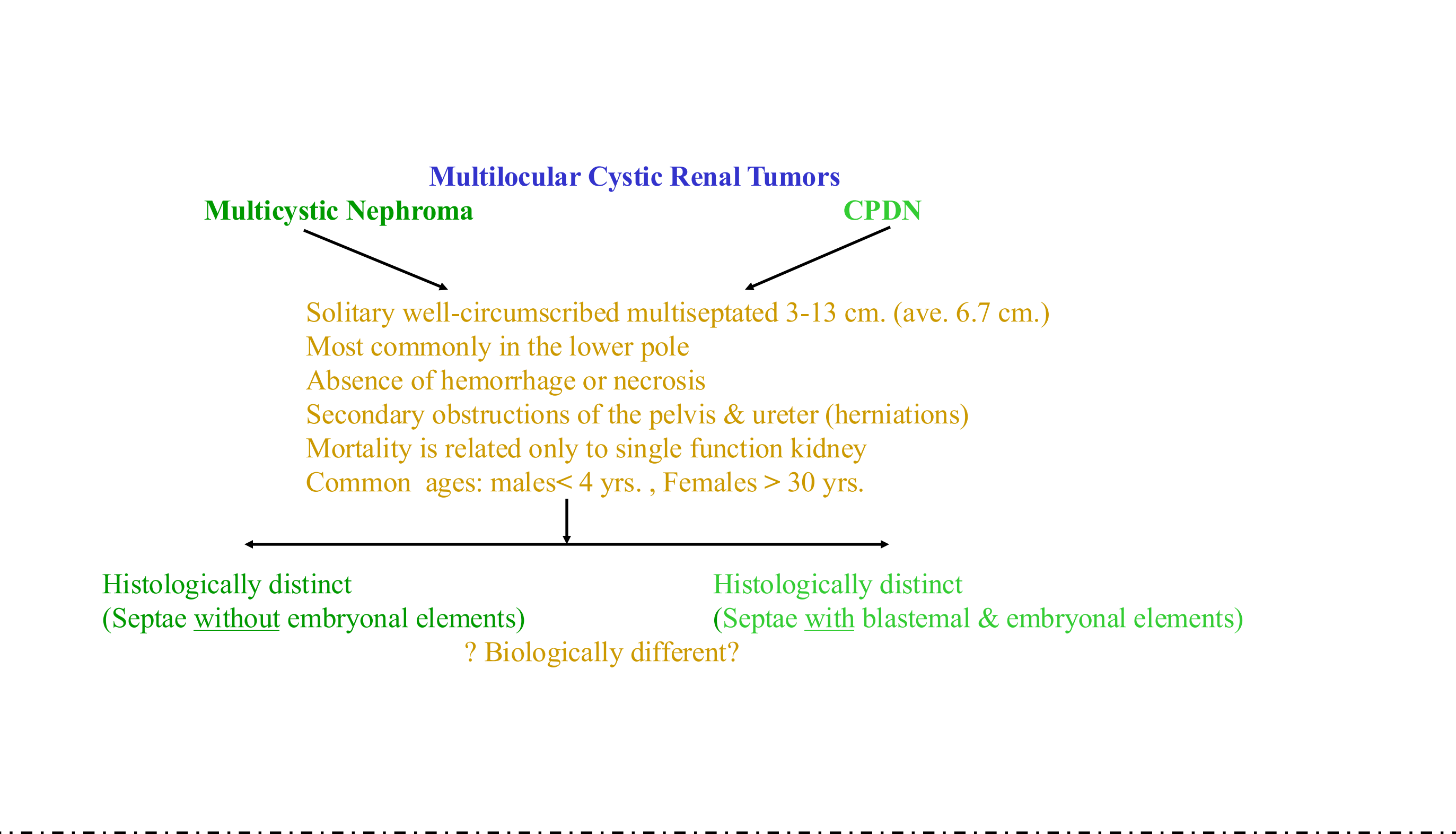
Microscopic Description and Summary: H & E stains show that the mass is a multicystic lesion. The cysts are lined by cuboidal epithelium which in some areas are somewhat hobnail. There are no areas of malignancy or atypia. The stroma between the cysts are fibrous. Sections away from the mass show normal renal parenchyma. The diagnosis is a Multicystic Nephroma. Malignancy is not identified.

Discussion:

The gross description of the left nephrectomy by the PA noted a well delineated multiloculated cystic mass and preserved normal parenchyma. The CT scan reported by the radiologist described an extensively septated cystic renal mass suspicious for a multilocular cystic renal cell carcinoma or a partially cystic dysplastic kidney.



A case report in 1956 by Boggs and Kimmelstiel proposed Multilocular Cystic Nephroma (3). Originally considered a lesion of malignant potential, Joshi and Beckwith later proposed a modification that emphasized a subset based on histology. The Multicystic Nephroma and the CPDN became subsets of the category **multilocular cystic renal tumors** (3,4).



Conclusion:

Multicystic renal tumors in adults are one example where concise, gross descriptions by the Pathologists’ Assistant (PA) are extremely important and have shown to expedite the diagnosis when specific gross tumor features are recognized by the PA and conveyed to the pathologist. The benign solitary tumor termed “Multicystic Nephroma” or “Multilocular Cystic Nephroma” is uncommon at any age and may have more aggressive behavior if blastema or embryonal elements are seen microscopically in the fibrous septae of the locules/cyst. Ultrasonography is the preferred non-invasive study for diagnosis and when combined with CT or MRI scans offer more detailed evaluation of the cystic lesion and stromal tissue.

Histologic examination of this Multicystic Nephroma in a 64 year-old male was identical to the microscopic features cited in the literature reviewed.

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