Mucocele Causing Hydropic Gallbladder

Muhammad Masood Hassan and Tammey Naab, MD; Howard University Hospital

Hydropic gallbladder is a rare condition resulting from gallstone impaction, tumors, and narrowing of the cystic duct. Histopathological examination is essential in guiding optimal patient management. We present a case of a 62-year-old Hispanic male with right upper quadrant pain. Diagnostic abdominal ultrasound was significant for a 1.2-cm stone at the gallbladder neck with a 0.6-cm thickened gallbladder wall. Laparoscopic cholecystectomy was performed. A calculus was not found. Calcification in the solidified mucocele represented the stone seen on imaging. Gross examination revealed thickened hard gallbladder. Cut sections revealed dense yellow material filling and distending the lumen. Differential diagnoses include hyalinizing cholecystitis, xanthogranulomatous cholecystitis, and gallbladder carcinoma. Histology revealed a solidified eosinophilic secretion having a central cholesterol core densely adherent to flattened inflamed mucosa. Gram and GMS stains were negative. The secretion was PAS positive and diastase resistant. Epithelial mucus and mucopolysaccharides would yield that reaction. Hypersecretion of glycoproteins and variants of mucocele were diagnostic possibilities. Such mucocele-like sludge, while classically reported in the veterinary setting, has also been reported in association with acute cholecystitis, retained gallbladder stump after incomplete cholecystectomy, and in patients with sickle cell disease. Histopathological examination is critical in assessing a partially calcified gallbladder mass in an older patient, especially when ultrasound is inconclusive. Hardened gallbladder mucocele can grossly mimic GB carcinoma.

Amyloidoma Mimicking Metastatic Breast Carcinoma

Muhammad Masood Hassan and Tammey Naab, MD; Howard University Hospital

Amyloidosis is a group of disorders resulting in the extracellular deposition of insoluble fibrillar protein material called “amyloid.” Amyloid consists of relatively insoluble fibrils composed of polypeptide chains arranged in a twisted β-pleated sheet configuration. We report a case of suprarenal amyloidoma. A 58-year-old female presented with progressively worsening pain in the left upper quadrant of 6 months’ duration. She had a history of right breast cancer treated with radiotherapy. The CT scan showed a 6.9 × 6.2 × 7.7-cm left suprarenal mass and multiple lytic lesions in the spine. The clinical findings and CT scan suggested that the suprarenal mass could be a metastasis from the breast carcinoma or primary adrenal cortical carcinoma. Additional findings included hypercalcemia, monoclonal spike in a serum protein electrophoresis, increased BUN and creatinine, and normocytic anemia. The bone marrow biopsy revealed findings consistent with multiple myeloma. Biopsy of the suprarenal mass showed pink amorphous material and calcification. Congo red stain was negative. Kappa light chain immunostain showed strong and diffuse positivity while lambda light stain was negative. A diagnosis of light chain amyloidosis associated with multiple myeloma was made. The tissue biopsy and immunostains were critical in making diagnosis of this large amyloidoma. To the best of our knowledge, this is the first report of a suprarenal amyloidoma. Histopathological evaluation is extremely critical in making an accurate diagnosis when clinical suspicion favors a malignant process.

A Rare Case of Intravascular Large B-Cell Lymphoma

Roshan Raza, MD,1 and Rajendra Singh, MD;2 Mount Sinai St Luke’s Roosevelt Hospital Center and 2Mount Sinai Hospital

First reported in the literature in 1959, intravascular large B-cell lymphoma (IVLBCL) is a very rare subtype of large cell lymphoma characterized by the proliferation of clonal atypical lymphocytes within the lumina of small blood vessels, without any obvious extravascular tumor mass or readily observable circulating lymphoma cells in the peripheral blood. The surprising degree of sparing of the surrounding tissue and the absence of lymphoma cells in the lymph nodes and reticuloendothelial system are a hallmark of the disease. Here we present a case of a 63-year-old female, without any significant medical history, presenting with a macule on the left breast skin. A punch biopsy was performed, which on histology revealed atypical lymphoid cells (large cells with vesicular nuclear chromatin and prominent nucleoli) within the smaller blood vessels in the reticular dermis. There was no infiltration of these atypical cells in the surrounding dermis. With a strong suspicion of lymphoma, the first round of immunohistochemistry was performed, which showed negative results for CK7, CK20, mammaglobin, CD31, and CD68 and strong positivity for CK20, suggestive of IVLBCL. Second round of immunostains was positive for CD79a, MUM1, and BCL-2; CD10 was negative while CD3 showed admixed lymphocytes, supportive of the diagnosis. IVLBCL is a rare disease with an estimated incidence of less than one per million. Median age of incidence is 70 years (34–90 years). Patients present with a variety of constitutional and systemic symptoms (especially CNS involvement) caused by the occlusion of small vessels, but our patient did not present with any. Skin involvement can manifest as nodules/plaques (49%), macules (22.5%), telangiectatic patches (20%), and cellulitis.
We present this rare and interesting case to highlight the existence of this entity since it carries a poor prognosis and requires a timely rituximab-containing chemotherapy plus CNS-oriented therapy.

A Rare Case of Leiomyomatosis Peritonealis Disseminata With Endometriosis

Amit Reddy, MBBS, Jaswinder Kaur, MD, and James Neill, MD; University of Mississippi Medical Center

Introduction: Leiomyomatosis peritonealis disseminata (LPD) is a rare benign disorder characterized as numerous smooth muscle nodules in the peritoneal cavity. LPD is difficult to diagnose by clinical evaluation due to unknown etiology and incidental findings. To date, fewer than 200 cases have been reported and one other case of LPD with endometriosis and ascites has been documented. LPD commonly occurs in reproductive age and rarely is seen in postmenopausal women. We present LPD in a postmenopausal woman with endometriosis.

Case Report: A 54-year-old female presented with pain, nausea, vomiting, and weight loss. Physical exam demonstrated a palpable mass arising from the adnexa. CT scan showed a 6.4-cm large multiloculated heterogeneous mass in the right adnexa concerning for ovarian carcinoma, a large 17-cm fibroid uterus, extensive peritoneal carcinomatosis, small volume of ascites, and numerous hypodense metastatic liver lesions. CT-guided biopsy of peritoneal carcinomatosis of omentum revealed spindle cell neoplasm immunophenotypically consistent with leiomyoma and stained positive for desmin, caldesmon, smooth muscle actin, and Ki-67. Microscopy sections of omental mass showed proliferation of poorly circumscribed spindle cells arranged as nodules in short interlacing and haphazard arrangements in omentum. No cytological atypia was seen in spindle cell proliferation. No mitotic activity was identified. Sections of posterior bladder mass showed endometriosis with an adenomyoma pattern of smooth muscle hypertrophy. Immunohistochemistry confirmed strong positive reactivity in spindle cells to desmin and WT1. Findings were consistent with LPD.

Discussion: LPD is not considered in the differential diagnosis of multiple peritoneal nodules because of low incidence and unfamiliarity among clinicians. The treatment for this benign condition is conservative because in most cases, malignant transformation is rare and tumors regress. For conclusive diagnosis of LPD, radiological imaging proves challenging; thus, direct sampling is required to exclude any malignancies. LPD is problematic to identify clinically, so diagnosis is dependent on pathological and surgical results; nevertheless, the prognosis is often good.

Neuroendocrine Tumor: A Rare Finding in the Hilar Bile Duct

Amit Reddy, MBBS, Jaswinder Kaur, MD, and Charulochana Subramony, MBBS; University of Mississippi Medical Center

Background: Neuroendocrine tumors (NETs) usually occur in the gastrointestinal system but very rarely arise from the bile duct. Even more exceedingly rare are NETs in the hilar bile duct, accounting for only 0.1% to 0.4% of cases. Here we present an incidentally found bile duct NET.

Case Report: A 54-year-old male with nonalcoholic steatohepatitis, micronodular cirrhosis, and chronic hypotension was admitted for increased generalized swelling. His hyponatremia was proven difficult to control and unresponsive to medications. He subsequently responded well to diuresis. An acceptable liver donor was found during admission, after which the patient underwent liver transplantation.

Results: The explant liver (1,026 g) grossly was tan brown and diffusely nodular with the attached tan-pink gallbladder. A section of the hilum adjacent to the resection margin revealed an incidental, completely resected, 3-mm well-circumscribed tumor adhered to the wall of the hilar bile duct. Synaptophysin and chromogranin highlighted tumor cells. PAS-D and iron stains were negative. Microscopy revealed a grade 1, well-differentiated NET exhibiting mitosis. The Ki-67 index showed less than 2% positivity.

Conclusion: Primary bile duct NETs are extremely rare and difficult to identify preoperatively, and diagnosis is often made postoperatively after histological and immunohistochemistry specimen analysis. Bile duct NETs tend to display indolent behavior. The best predictor of aggressive behavior is tumor size greater than 2 cm. The treatment of choice is complete excision. An extensive literature review revealed approximately 70 cases of well-differentiated NETs of extrahepatic bile ducts since the first reported case in 1959. A multidisciplinary approach for diagnosis of these tumors, continued reporting, and long-term follow-up of patients are crucial for gathering data to guide the appropriate treatment.

Incidental Finding of Renal Oncocytoma in a Patient With Agent Orange Exposure

Amit Reddy, MBBS, Mary Sessums, MD, Varsha Manucha, and John Henegan, MD; University of Mississippi Medical Center

Introduction: More than 3 million veterans during the Vietnam War had exposure to Agent Orange (AO), an herbicide containing dioxin linked to increased cancer risk. There is an association between AO and hematological...