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Title: Clear RCC with pelvic solitary fibrous tumor: Rare case to report

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Solitary fibrous tumour is a soft tissue tumour composed of a subset of fibroblast-like cells with tumours in internal abdomen accounting for 20%. Renal cell carcinoma accounts for 2–3% of all cancers with clear cell (cc RCC) accounts for 75% of RCC cases. Clear renal cell carcinoma of the kidney is a common renal neoplasm composed predominantly of nests and sheets of clear cells. I introduce a very rare case with the combination of these two tumours. An Egyptian female patient of 65 years was admitted to our center complaining of hematuria and left loin pain with right iliac fossa discomfort. Physical examination revealed palpable mass at the left loin with scar of previous caesarian section. Hematological and biochemical tests revealed increased creatinine level with prolonged prothrombin time in addition to hypoalbuminemia. Patient underwent open left radical nephrectomy with para-aortic lymph nodes resection. A mass was seen adherent to both the right ovary and colon where the surgeons resected uterus, bilateral adnexa, and the unidentified tumour. Both specimens were sent to our pathology department for processing and diagnosis. Grossly, the renal mass was in the mid and lower pole, confined to the capsule and measuring 5x3x3 cm with solid, hemorrhagic cut surface and variegated appearance. The incidentally identified exophytic tumour attached to the right ovary was also examined. Grossly, the tumour was a grayish, solid mass measuring 12x10x8 cm. The tumour was composed of multiple nodules and well circumscribed. Microscopic examination of the renal mass was consistent with the histopathological subtype clear cell of renal cell carcinoma, with the pathologic stage: pT1b. Histologic Grade (Fuhrman Nuclear Grade) was 2. Microscopic examination of the exophytic ovarian tumour was composed of spindle-shaped cells with indistinct cytoplasm, oval-shaped nuclei and dispersed chromatin arranged in ill-defined fascicles. Many branching, staghorn- like vessels were encountered. Mitotic activity was about 4 mitosis per 10 high-power fields. By immunohistochemical staining, the tumour cells were diffusely positive for STAT6, CD34 and SMA and negative for C-kit. These findings were interpreted as solitary fibrous tumour, suspicious for malignancy.

Biography

I have completed my post- graduation at the age of 24 years from Mansoura University and MD degree from Benha University, Egypt. I have published 33 papers in reputed journals.

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Title: The synchronous gastrointestinal neuroendocrine tumors, colorectal adenocarcinoma and liver cavernous hemangioma-histopathological, immunohistochemical and genetic case report study

Liga Sulca, Selga Savcenko, Viktorija Kregere

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The incidence of synchronous gastrointestinal neuroendocrine tumors (NET) and colorectal cancer is very low (Yumoto S, 2020). NET are relatively rare tumors and located most commonly in the gastrointestinal tract mainly in small intestine and rectum. Generally, NETs often show hematogenous metastases, and the most frequent site of distant spread is liver (Yumoto S, 2020). Colorectal carcinoma is one of common malignant tumor. The adenocarcinoma is the frequent histopathological tumor type. (Yumoto S, 2020). The synchronous tumors usually are inherited and are related with multiple endocrine neoplasia syndrome (Yumoto S, 2020).

We report the case of a 70-year-old male with multiple sinchronous tumours- primary small intestinal neuroendocrine tumor, colorectal carcinoma and liver cavernous hemangioma. A 70 years old male was addmitted at Pauls Stradins Clinical University Hospital with previously biopsy proved Grade 2 colorectal carcinoma for surgical treatment.

Clinical examination was performed. CT scanning showed suspicious liver mass, probably metastasis. In addition, in small intestine mass lesions were observed. The surgical treatment was performed. The histopathological, immunohistochemical and genetic examination was performed. The comprehensive next generation sequencing was performed (Quigen). Such genes were analyzed-APC, AKT2, AKT3, AR, ARAF, ARID1A, BAP1, BRCA1, BRCA2, BRAF, CDH1, CDK4, CSF1R, CDKN, CTCF, ERBB3, ESR1, FAT1, FOXL2, GATA3, GNA11, GNAQ, H3F3A, HIST1H3 B, HNF1A, HRAS, IDH1, IDH2, JAK2, KDR, KRAS, KEAP1, KMT2C, KMT2D, MAP2K2, MLH1, NF1, NFE2L2, PDGFRA, PIK3R1, POLE, RAC1, RB1, RHOA, SF3B1, SMARCB 1, SRC, TSC1, TSC2, U2AF1, VHL. Histopathological examination demonstrated multiple sinchronous tumors. The patients has liver cavernous hemangioma, muliple small intestinal neuroendocrine tumor Grade 2 (NET Grade 2) measured 0.4 cm ø and 0,6 cm ø , pT3(m)N0M0 and Grade 3 colorectal adenocarcinoma, pT2N1cM0. Immunohistochemical examination confirmed NET diagnosis, the tumor was positive for chromogranene and synaptophysine, Ki-67 index was 5%. The Grade 3 colorectal adenocarcinoma was positive for CKAE1/AE3. Obtained results showed that small intestine NET had CDKN1B, DAXX and ATRX mutations, however MLH1, MSH2, MSH6, PMS2 mutations have not been observed. Colorectal adenocarcinoma had p53, SMAD4, PIK3CA and BRAF mutations, however MLH1, MSH2, MSH6, PMS2 and KRAS mutations have not been identified. To conclude, our case report rare coexistent synchronous tumors-liver cavernous hemangioma, small intestinal neuroendocrine tumors and colorectal adenocarcinoma. Based on NGS analysis small intestinal NET more likely corresponded to MEN 4 syndrome, however the genetical mutations of colorectal carcinoma demonstrated MSI wild type tumour which did not fulfill with MEN syndrome.

This case emphasizes that for synchronous cancer the surgical resection and hitopathological examination is requiered before systemic therapy regardless of the difference in prognosis between the synchronous tumors.

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Liga Sulca, Selga Savcenko, Viktorija Kregere

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Received: May 30, 2022; Accepted: June 01, 2022; Published: September 25, 2022

Biography

Liga Sulca, MD, graduated from Faculty of Medicine, University of Latvia in 2020. Currently she is a 2 year resident at Riga East University Hospital, Centre of Pathology and University of Latvia. Interested in gastrointestinal pathology, renal pathology and neuropathology. Participated in different local and international scientific conferences.

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Title: Incidence and diagnosis of ampullary carcinoma in Dhulikhel hospital

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Background: Endoscopy from a suspected ampulla of vator may establish an early preoperative diagnosis of ampullary carcinoma. However, information regarding the diagnostic accuracy of this procedure is limited and variable. The purpose of this study was to find the incidence of ampullary carcinoma in Dhulikhel Hospital and to assess the preoperative diagnostic accuracy of Endoscopic/ERCP appearance and endoscopic biopsy in all cases with suspicion of tumor.

Materials and Methods: Among patients who were performed endoscopy during a one year period; a suspicious ampulla of vator was seen in 44 cases. Endoscopic biopsy specimens were classified into four groups based on the degree of epithelial atypia: group 1 (no evidence of malignancy), group 2 (presence of dysplasia), group 3 (suspicious of malignancy) and group 4 (positive for malignancy). In each case comparison was made between the pre-endoscopic biopsy clinical diagnosis and endoscopic appearance.

Results: Endoscopic biopsy diagnosis of malignancy (Group 4) were seen in 22 cases, Suspicious of malignancy (group3) in 3 cases, Dysplasia (Group 2) in 9 cases and no evidence of malignancy (Group 1) in 10 cases. Pre-endoscopic diagnostic accuracy of endoscopy/ ERCP was 50% compared to the diagnosis by biopsy.

Conclusions: The accuracy of clinical diagnosis and endoscopy is limited. This limitation must be considered when evaluating the optimal management of patients with suspected ampullary tumor.

Biography

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Title: Three-dimensional scaffold with associated hemoxcell for supporting ipcs in diabetic nude mice subcutaneous tissue as promising preclinical trial

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The worldwide prevalence of Diabetes mellitus evoked the need for better treatment options. Tissue engineering showed a great promising modality. For this, we investigated the potential role of a three-dimensional, scalable scaffold to support IPCs survival and function in the streptozotocin- induced, diabetic nude mice subcutaneous tissue, and to address the limits of our previously tested encapsulation systems. Isolation and expansion of human mesenchymal stem cells were subsequently differentiated into IPCs according to our published trichostatin-A protocol. Forty mice, diabetes was induced in 30, and 10 served as normal controls. For each diabetic mouse, 3x106 IPCs were cultured with the cytoform-400 scaffold in xenofree media with the addition of HEMOXCell just before transplantation. HEMOXCell subcutaneous injections for 7 days were done to further improve niche conditions. Follow-up for 3 months was done. The glucose tolerance curves exhibited a normal pattern demonstrating that the cells were glucose-sensitive and insulin- responsive. Their fasting blood sugar levels were reduced in 5 of them and reached near normal values in 15 of them. The sera of all transplanted mice contained human insulin and C-peptide with a negligible amount of mouse insulin. Removal of the transplanted scaffolds was followed by a prompt return of diabetes. Intracytoplasmic insulin granules were seen by immunofluorescence in cells from the harvested scaffolds. Furthermore, all pancreatic endocrine genes were expressed. This study demonstrated that the scalable scaffold with modified niche conditions can provide adequate support, an important issue when stem cells are considered for the treatment of type 1 diabetes mellitus.

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Title: Teratoid Nephroblastoma, rare entity with good prognosis

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Teratoid Wilms' tumor is an uncommon variant of the widely encountered pediatric nephroblastoma in which predominant percentage of heterologous tissue are detected. I report a case of teratoid Wilms' tumor in a 6-year-old female. The girl was presented with right sided flank swelling of six month duration which was palpable on physical examination. Abdominal ultrasound showed a mass in the mid and lower poles of the right kidney measuring 10x7x8 cm with minute areas of cystic degeneration and hyperechoic calcific foci. No intravascular echogenic focus was identified on color Doppler sonography. Left kidney was normal in shape, position and echopattern. Post contrast computed tomography scan of chest abdomen and pelvis revealed confirmed the US results. Pre-operative routine investigations were normal. A provisional diagnosis of Wilms' tumor was made followed by right sided nephrectomy and the specimen was sent for the histopathological examination. On gross examination, the tumor measured 11x9x8 cm and was weighing 350 g. It was well- circumscribed and encapsulated. Cut sections presented homogenous gray-white tumor tissue, soft, and granular in the texture. Ureter and renal veins were free from tumor involvement. Microscopically multiple sections examined from different areas showed classic triphasic combination of blastemal (small, round blue cells), stromal (fibrous), and epithelial cell (aborted tubules and glomeruli) types. The heterologous elements are predominant and composed of squamous epithelium with abundant keratin pearl formation, rhabdomyoblasts, mature cartilage, mucinous epithelium and neurofibrillary matrix; altogether constituting about 80% of the area from where the sections were examined. Considering the above histopathological features, a diagnosis of teratoid Wilms' tumor was concluded. The patient was referred to the medical oncology department where no post-operative chemotherapy was advised. Patient was doing well 1 year post-surgery. After that, the patient was not in contact for further follow-up.

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Title: Removal of brain hydatid cyst through burr-hole operation (Case Report)

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Brain involvement occurs in 2–3% of patients with systemic echinococcosis. Children are most often affected and, in countries where echinococcosis is common, up to 50% of all childhood CNS "tumors" prove to be echinococcal cysts, life saving rapid burr hole aspiration of cyst with total removal of cyst membrane with the use of hypertonic solution as cidal agent with pre and post operative antiprotozoal is very successful procedure in emergency deteriorating patient with brain hydatid disease.

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Title: The study of rat mesovarium's mast cells number, size and structure in relation with estrous cycle and chronic cold stress

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The climate of Mongolia is dry and extreme, with cold seasons during the 5-7 months of year, which is one of the causes of cold-borne disorders occurring in people. In our country, there are cases of women with inflammatory disease of reproductive organ too. Although the researches on ovarian mast cells have been common so far, the researches on mesovarium mast cells, which have good blood and nerve supply, is pretty uncommon. The researches on cold stress induced changes in mesovarium mast cells' number, size and structure in relation with menstrual cycle hasn't been done yet in our country. In our study, we have chosen 16 rats in control group and 48 rats in cold stress group, a total of 64 rats. The cold stress group was divided again into 3 groups (16:16:16) and underwent daily cold stress (refrigerator-150C) from 8:00 am-11:00 am for 7, 14, 21 days in order to generate cold stress model. The number, shape, structural changes, size, perimeter, length and width of the mesovarium mast cell were determined. The determination of estrous cycles was carried out at 8 am on test day by taking a smear from the vagina using Papanicolaou test and the phases of estrous cycle was determined by histological test.