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INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI: 10.21474/IJAR01/16834
DOI URL: http://dx.doi.org/10.21474/IJAR01/16834

RESEARCH ARTICLE

MUCOEPIDERMOIDCARCINOMA OF THE PANCREAS: A CASE REPORT

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Manuscript Info

Manuscript History
Received: 28 February 2023
Final Accepted: 31 March 2023
Published: April 2023

Key words:-
Mucoepidermoidecarcinoma, Pancras, Livermetastasis, Rare Tumor, Literaturereview

Abstract

Mucoepidermoidcarcinoma (MEC) is a rare neoplasmthat arises from the exocrine glands and iscommonlyfound in the salivary glands. However, MEC of the pancreasis an exceedingly rare entity, withonly a few documented cases in the literature. Here, wepresent the case of a 69-year-old male patient whowasdiagnosedwithmucoepidermoidcarcinoma of the pancreasthathadmetastasized to the liver. MEC of the pancreasis a highlyaggressivemalignancythatisassociatedwith a poorprognosis due to itsability to invadesurrounding tissues and to metastasizeearly. In this report, wedescribe the patient'sclinicalpresentation, diagnostic workup, and management, as well as a review of the currentliterature on this rare tumor.

Introduction:-

Carcinomamucoepidermoid of the pancreasis a rare type of pancreatic cancer that arises from the pancreaticducts. It is a malignanttumorthatiscomposed of a mixture of mucus-secreting, squamous, and intermediatecells. This type of cancer isoftendifficult to diagnose becauseitcanpresentwithnonspecificsymptoms, and imagingstudiesmay not show anyabnormalities.

Symptoms of carcinomamucoepidermoid of the pancreasmayinclude abdominal pain, jaundice, weightloss, and digestive issues. Treatment options typicallyinvolvesurgicalremoval of the tumor, followed by chemotherapy and/or radiation therapy. However, the prognosis for this type of cancer isgenerallypoor, as it tends to beaggressive and has a high likelihood of recurrence.

Case Presentation
Patient:
69-year-old male with a history of diabetes and hypertension, currently on treatment.

History of PresentingIllness:
The patient presented one monthagowith progressive aggravation of cholestaticjaundiceassociatedwithweightloss and fatigue. A TDM TAP performedrevealed a tissue mass of the pancreaticheadmeasuring 28 mm in its long axis with portal invasion and retro lamina invasion, alongwith a few locoregionallymphnodes. twohepatic nodules in segments III and IV.

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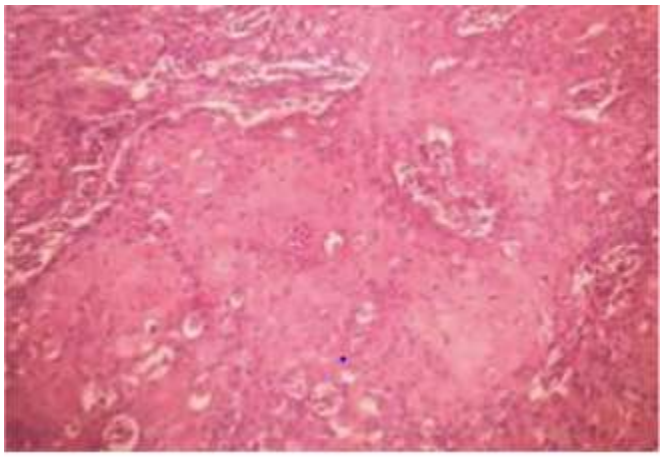
Management:

A decisionwastaken to perform a TDM abdominal portal phase, whichrevealed a pancreaticheadtumorwithbicanal dilatation and vascular extension at the portal trunk. The patient underwent a biopsy and chemotherapy (gemcitabine 1000 mg/m2 J1 J8 J15 J1 = J28) alongwith the placement of a biliarystent. The anapath report showed a mixed mucinous-epidermoidpancreaticcarcinoma(Figures 1 (A and B)). The patient wasalsofound to have elevatedlevels of liverfunction tests (GOT 388 GPT 108 GGT 3740 PAL 1086 BT 291 BD 155). Markers such as CA 19-9 and ACE werealsoelevated.

After 3 months of treatment, the patient's condition wasrelatively stable. However, a follow-up TDM TAP at the Atlas Radiology Center on ively stable. However, a follow-up TDM TAP at the Atlas Radiology Center on June 1, 2021, showed an increase in the size of the pancreaticheadtumor, whichnowmeasured 4034 mm versus 3130 mm, with dilatation of the Wirsung measuring 6 mm. The biliarystentwas in place, but therewas partial thrombosis of the portal trunk and low-volume ascites. The patient's CA 19-9 levelshadalsoincreased to 28940 from the initial value of 500.

Unfortunately, the patient did not have time to receive second-line treatment, and hisoverall condition deterioratedrapidly, leading to hisdeath. Despiteundergoingchemotherapywithgemcitabine, hisliverfunction tests and CA 19-9 levelsincreased, whichmay have contributed to hisworsening condition. Mixed mucinous-epidermoidpancreaticcarcinomais an aggressiveform of cancer, and the prognosisistypicallypoor.

A



B

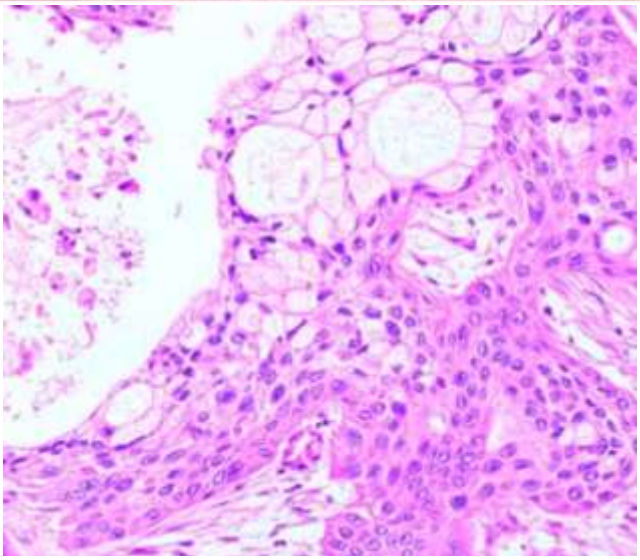


Figure 1 A:- Histologicalsection × 2 showingwell-differentiatedsquamouscellcarcinoma of the differentiatedsquamouscellcarcinoma of the pancreas. **B:-** Bothadenocarcinoma and squamouscellcarcinoma components are visible.

Discussion:-

Mucoepidermoidcarcinoma (MEC) is a rare neoplasmthat arises from the exocrine glands and iscommonlyfound in the salivary glands. MEC of the pancreasis an exceedingly rare entity, accounting for lessthan 1% of all pancreaticmalignancies (1). It was first describedin 1952 by Stewart and Foote (2), and sincethen, only a few documented cases have been reported in the literature.

The clinicalpresentation of MEC of the pancreasisoften non-specific, withsymptomsrangingfrom abdominal pain to weightloss, anorexia, nausea, and vomiting. Thesesymptomsmaymimicthose of otherpancreaticneoplasms, such as adenocarcinomas and neuroendocrine tumors, makingearlydiagnosis and differentiation of thesetumorschallenging. In addition, imagingmodalitiessuch as computedtomography (CT) and magneticresonanceimaging (MRI) have limitedsensitivity and specificity for detecting MEC of the pancreas (3).

Histologically, the MEC of the pancreasiscomposed of threecell types: mucouscells, epidermoidcells, and intermediatecells. Thesecells are arranged in various patterns, includingsolid, cystic, papillary, and glandular. Immunohistochemicalstainingcanbehelpful in distinguishing MEC fromotherpancreaticneoplasms (4).

The prognosis of MEC of the pancreasispoor due to itsaggressive nature and high propensity for earlymetastasis. In a study of 13 cases of MEC of the pancreas, livermetastasiswaspresentin 5 cases (38%) at the time of diagnosis and in an additional 2 cases (15%) duringfollow-up (5). The presence of livermetastasisis a poorprognostic factor, with a mediansurvival time of 9 months (6).

The optimal management of MEC of the pancreaswithlivermetastasisisunclear due to the rarity of the tumor and the lack of randomizedcontrolled trials. Surgicalresectionis the treatment of choice for localizeddisease, but the benefit of surgery for advanceddiseaseisunclear. Chemotherapy and radiation therapy have been usedwithlimitedsuccess in treating MEC of the pancreas (7).

In conclusion, MEC of the pancreasis a rare and aggressivemalignancywith a high propensity for earlymetastasis. A high degree of clinical suspicion isnecessary to diagnose this rare tumoraccurately. Althoughsurgicalresectionis the treatment of choice for localizeddisease, thereis no established consensus on the optimal management of MEC of the pancreaswithlivermetastasis. Furtherstudies are needed to identify effective therapeuticstrategies for this rare malignancy.

References:-

1. Hruban RH, Pitman MB, Klimstra DS. Tumors of the Pancreas. In: AFIP Atlas of TumorPathology. FourthSeries, Fascicle 6. Washington, DC: Armed Forces Institute of Pathology; 2007.
2. Stewart FW, Foote FW Jr. Muco-epidermoidtumors of salivary glands. Ann Surg. 1952;135(5):878-888.
3. Hsieh MS, Chen YC, Chen HM, et al. Mucoepidermoidcarcinoma of the pancreas: case report and review of the literature. GastroenterolResPract. 2011;2011:549865.
4. Hara T, Okamura Y, Enomoto T, et al. Mucoepidermoidcarcinoma of the pancreas: a case report and review of the literature. Pancreatology. 2015;15(3):332-336.
5. Koshikawa T, Okabayashi T, Shima Y, et al. Mucoepidermoidcarcinoma of the pancreas: a rare pancreatictumorwith unique clinicalfeatures. World J GastrointestOncol. 2011;3(9):136-139.
6. Sakamoto H, Kitano M, Komaki T, et al. Mucoepidermoidcarcinoma of the pancreaswithlivermetastasis: a case report and literaturereview. JOP. 2011;12(1):39-43.
7. Lo RC, Matthews JB. Pancreatic cancer: a review of the current state of therapy. J GastrointestSurg. 2011;15(5):804-814.