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A Rare Case Report of a Patient with Carcinoma Cervix with Incidental High Grade Neuroendocrine Carcinoma Pancreas

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Abstract: ***Pancreatic neuro endocrine tumors (NETs), also known as islet cell tumors, are rare neoplasms that arise in the endocrine tissues of the pancreas. They can secrete a variety of peptide hormones, including insulin, gastrin, glucagon, and vasoactive intestinal peptide, resulting in myriad clinical syndromes. However, 50 - 70% of pancreatic NETs are non functioning (i. e, unassociated with a hormonal syndrome). The term Pancreatic neuro endocrine carcinoma (NEC) is reserved for those cases with poorly differentiated histology and high proliferative rate.***

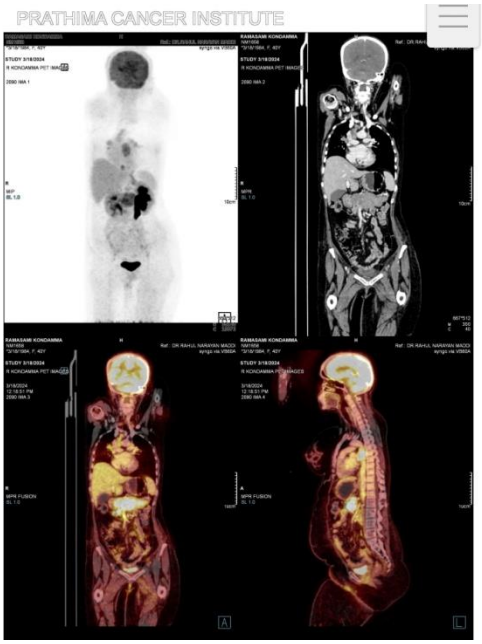
Keywords: Pancreatic neuroendocrine tumors, Islet cell tumors, Peptide hormones, Non functioning NETs, Neuroendocrine carcinoma

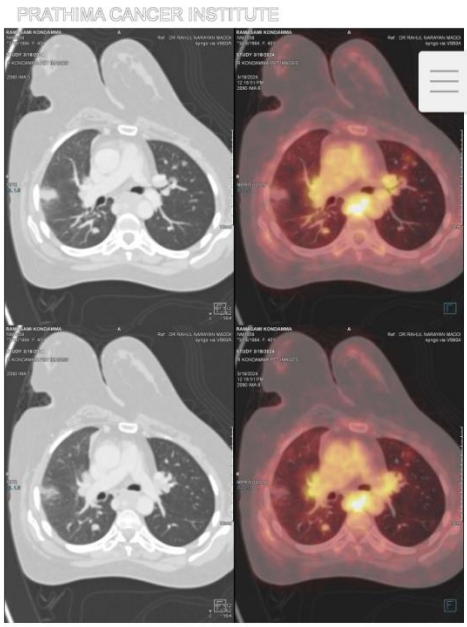
1. Case Report

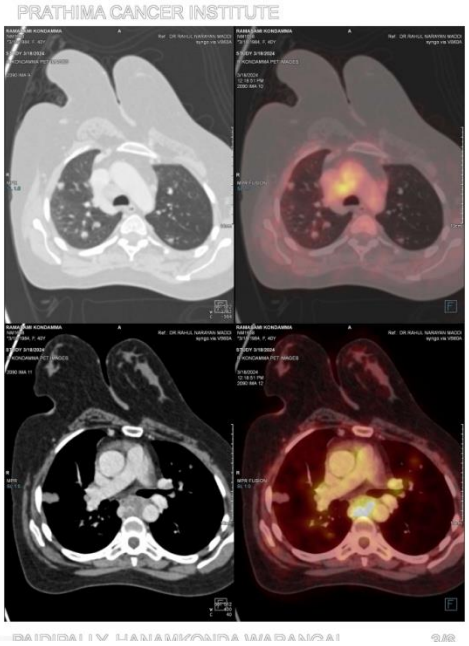
A 40 year female in our hospital with stage III carcinoma cervix (PET CT and HPE proven) on chemotherapy with carboplatin for 6 cycles with etoposide and radiotherapy, was planned for PET CT after 4 cycles of chemotherapy and 25# radiotherapy to assess the treatment response.

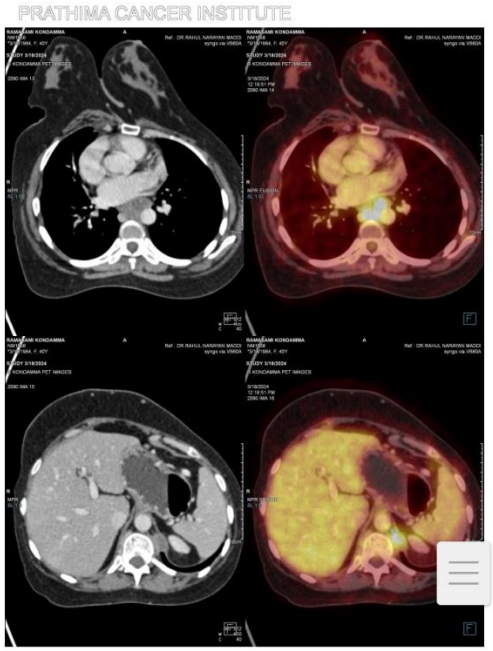
PET CT showed

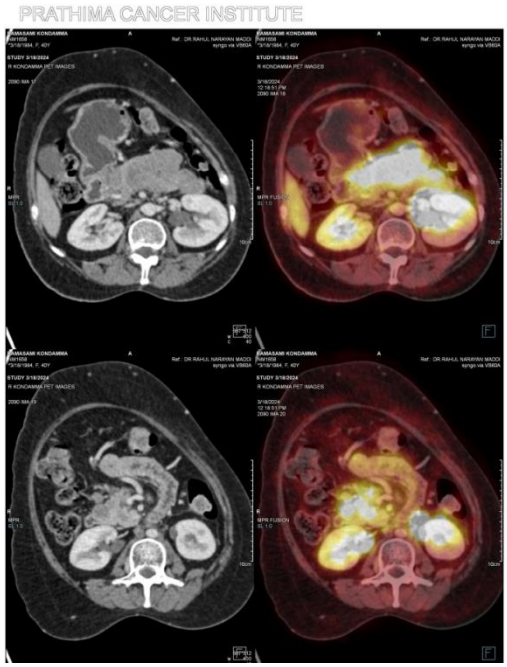
- Diffuse hypermetabolism in mildly dilated cervix - post radiotherapy changes
- Hypermetabolic large ill defined, lobulated, soft tissue lesion seen in head, body, and tail of pancreas - neoplastic etiology
- Fdg avid few peripancreatic, mesenteric and bilateral posterior diaphragmatic crural lymphnodes, mediastinal and bilateral supraclavicular lymph nodes.
- Tiny hyper dense area in left frontal region of brain with no significant metabolism.

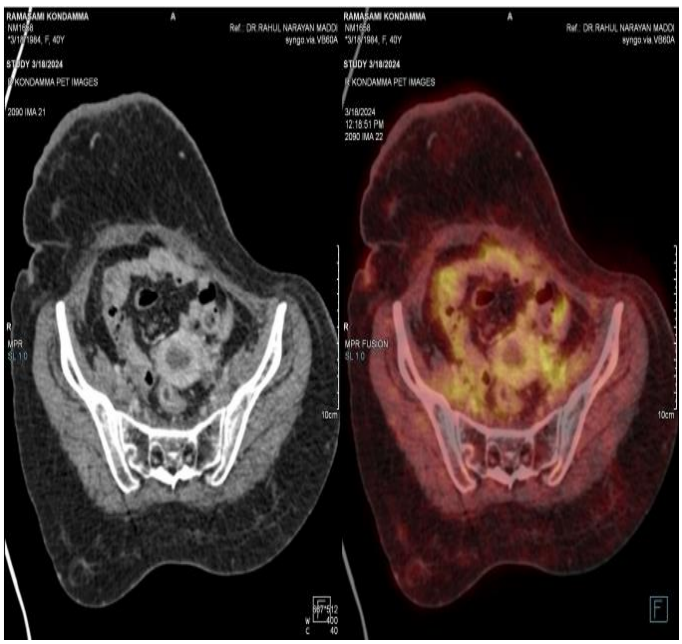










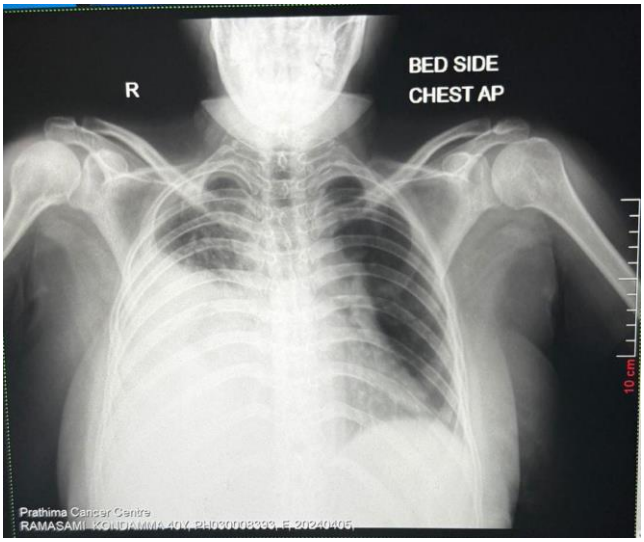


Then, USG guided biopsy from left pancreatic mass done and sent for histopathological examination and immunohistochemistry.

Microscopy showed linear cores with highly cellular necrotic tumour with preserved tumour cells showing high N: C ratio, marked pleomorphism, frequent mitosis arranged as arborizing nests &islands. No glandular formations seen.

IHC showed positive report for PCK, CD117, SYNAPTOPHYSIN, CHROMOGRANIN A, Beta catenin, Ki67 (40 - 45%) which favor HIGH GRADE NEUROENDOCRINE CARCINOMA

Very Soon, the patient presented to ER with fever, shortness of breath, pain abdomen, bilateral pedal edema which was pitting in nature and fast filling. An Xray chest was done which showed right sided gross pleural effusion. Pleural tapping was done and supportive care given



Chemotherapy was continued and grave prognosis was explained to the patient attendants.

2. Discussion

Neuro endocrine cells are distributed widely throughout the body, and neoplasms of these dispersed cells, termed neuroendocrine neoplasms (NENs), can arise at many sites. Pancreatic neuro endocrine tumors (NETs), also known as islet cell tumors, are rare neoplasms that arise in the endocrine tissues of the pancreas. They can secrete a variety of peptide hormones, including insulin, gastrin, glucagon, and vasoactive intestinal peptide, resulting in myriad clinical syndromes. However, 50 - 70% of pancreatic NETs are non functioning (i. e, unassociated with a hormonal syndrome). The term Pancreatic neuro endocrine carcinoma (NEC) is reserved for those cases with poorly differentiated histology and high proliferative rate.

Pancreatic NETs are rare with incidence <1% case per 100, 000 individuals per year and account for 1 - 2% of pancreatic tumors represent <3% of primary pancreatic neoplasms. may occur in any age group, but common in 4 - 6th decades of life. Mostly occur sporadically, but may also be associated with hereditary endocrinopathies. Clinical presentation depends on whether the tumor is functioning or nonfunctioning. Non functioning tumors therefore present later in the course of disease with symptoms of local compression or metastatic disease. Most commonly non functioning NETs present with pain abdomen, weight loss, anorexia, nausea. . rarely with obstructive jaundice, intra abdominal hemorrhage or palpable mass or symptoms due to metastatic disease.

However high grade neuroendocrine carcinomas have poor prognosis with rapid disease progression, and there is a high proclivity for metastatic dissemination, even in the setting of clinically localized tumors. Palliative chemotherapy with cisplatin or carboplatin combined with etoposide is given.

Our patient here with Ca cervix was detected with high grade pancreatic neuro endocrine carcinoma detected incidentally. Chemo therapy was continued and grave prognosis was well explained to the patient attendants.

3. Conclusion

In summary this case report highlights the evaluation of a patient with carcinoma cervix on chemotherapy and radiotherapy and detected with high grade neuroendocrine carcinoma which is aggressive nature and should be rapidly referred for palliative chemotherapy and, supportive therapy given to address the symptoms evolving.

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