



ADJUVANT CHEMOTHERAPY EXPERIENCE IN SOLID PSEUDOPAPILLARY TUMOR OF PANCREAS

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| <p>Article Info <i>Received 15/07/2015</i> <i>Revised 27/08/2015</i> <i>Accepted 22/09/2015</i></p> <p>Key words: Solid pseudopapillary tumor of pancreas, Adjuvant therapy.</p> | <p>ABSTRACT Solid pseudopapillary tumor of the pancreas is a rare pathology and there is limited data about the management. Here we present an adjuvant therapy experience in solid pseudopapillary tumor of the pancreas</p> |
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INTRODUCTION

Pancreas cancer is an important part of oncology practice, which is the 8th leading cause of cancer deaths[1]. While ductal adenocarcinoma is the most common pathology, rare tumors like solid pseudopapillary tumor of pancreas (SPTP) have been described. Since the description of SPTP in 1959, numerous case reports have been discussed and limited data about this rare tumor has been clarified. Chemotherapy efficacy in SPTP is still a mystery. Here we present an adjuvant chemotherapy experience in SPTP.

Case Report:

A 20 year old female patient without any comorbidities, presented with abdominal pain and dyspepsia. Physical examination and laboratory work-up for hepatic, renal functions were normal. Abdominal imaging with computerized tomography showed semisolitary lesions on the head and body of the pancreas with a size of 86x81x47mm and 51x50x49mm, respectively (figure- 1a). Two cystic lesions originating from tail of pancreas extending to hilum of spleen were documented (figure-1b). The pancreatic biopsy was consistent with solid pseudopapillary neoplasm of the

pancreas. The patient was operated with whipple procedure. The pathological evaluation of the tumor was consistent with solid pseudopapillary tumor of pancreas. Tumor was infiltrative to intestinal serosa. The surgical margins, distal gastrectomy material and omentum were free of tumor. After surgery, the infiltration of serosa conveyed us to an adjuvant therapy. The patient was treated with Gemcitabine 1000mg/m² weekly cycles for 3 consecutive weeks, out of every 4 weeks. The patient was treated with 4 courses of chemotherapy without any toxicities. The patient has been followed with 3 months intervals and after 1 year of follow up, the patient was still free of tumor.

DISCUSSION AND CONCLUSION

Solid pseudopapillary tumor is a rare pathology of pancreas, accounting for 1-2% of exocrine pancreatic tumors[2]. It was first defined by Frantz in 1956 and more than 1000 cases have been reported in literature till now. The large series analyzed from Chinese and English literature by Yu and Papavramidis provided important clues about this rare tumor [3, 4]. SPTP is mostly reported in females with a nearly female/male ratio of 9. Although



third decade is the most presenting age of diagnosis, age of the cases ranges between 3-80. Abdominal pain is the most common presenting symptom but one third of the patients are asymptomatic and diagnosed incidentally. The most common sites of the tumor are head and tail of the pancreas. Although SPTP has usually a benign course, aggressive nature has been reported in literature. The malignancy criterias according to world health organization are metastatic lymph nodes and local invasion in pathological evaluation. However, there is no defined clue to predict the aggressivity of tumor [5]. Reported cases generally have an indolent course and usually have locally invasions to duodenum, stomach, spleen and major vessels. Liver is the most common site of metastasis. Regional lymph nodes, mesentery and peritoneum are other reported sites of metastasis. Most effective treatment modality defined is surgery and even in metastatic cases, debulking surgery is recommended[6]. There are experiences with transarterial chemoembolisation in liver metastatic disease. It has a good prognosis with a 95-100% 5- year survival rate[3].

Due to its indolent course, surgery is usually an

effective treatment modality and chemotherapy and radiotherapy experiences are only limited in recurrences or bulky tumors in patients who are not suitable for surgery. Palliative chemotherapy experience with Ifosfamide-etoposide- cisplatin in a patient with peritoneal carcinomatosis with a favorable result has been reported by Rebhandl et al[6]. Neoadjuvant experience with Cispatin-Fluorouracil and cisplatin- Gemcitabine regimens providing an operable mass have been reported. [7, 8]. Weekly Gemcitabine in neoadjuvant setting in a chemoradiotherapy refractory tumor provided effective results[9]. Radiotherapy experience in a patient with inoperable locally advanced tumor has been reported by Zauls et al[10]. There are no experience in adjuvant chemotherapy modality in English literature.

There are limited data about chemotherapy and radiotherapy modalities in SPTP. Because the pathology is rare, it's difficult to test the efficacy of these modalities. Only case series can give clues about it. To the best of our knowledge, our case is the first adjuvant chemotherapy experience in SPTP. Locally advanced tumors or R1- R2 resections can be good candidates for adjuvant therapy.

Figure 1. Solid lesion with heterogeneous density in the head of pancreas (1a), Cystic lesions in the neck and tail of pancreas (1b)



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CONFLICT OF INTEREST:

The authors declare that they have no conflict of interest.

STATEMENT OF HUMAN AND ANIMAL RIGHTS

All procedures performed in human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. This article does not contain any studies with animals performed by any of the authors.



REFERENCES

1. Jemal A, Bray F, Cente MM, Ferlay J, Ward E, Forman. (2011). Global cancer statistics. *CA Cancer J Clin*, 61, 69-90.
2. Kloppel G, Luttges J. (2001). WHO-classification 2000: exocrine pancreatic tumors. *Verh Dtsch Ges Pathol*, 85, 219-228.
3. Papavramidis T, Papavramidis S. (2005) Solid pseudopapillary tumors of the pancreas: review of 718 patients reported in English literature. *J Am Coll Surg*, 200(6), 965-972.
4. Yu PF, Hu ZH, Wang XB, Guo JM, Cheng XD, Zhang YL, Xu Qet. (2010). Solid pseudopapillary tumor of the pancreas: a review of 553 cases in Chinese literature. *World J Gastroenterol*, 16(10), 1209-1214.
5. Yin Q, Wang M, Wang C, Wu Z, Yuan F, Chen K, Tang Y, Zhao X, Miao F. (2012) Differentiation between benign and malignant solid pseudopapillary tumor of the pancreas by MDCT. *Eur J Radiol*, 81(11), 3010-3018.
6. Rebhandl W, Felberbauer FX, Puig S, Paya K, Hochschorner S, Barlan M, Horcher E. (2001). Solid-pseudopapillary tumor of the pancreas (Frantz tumor) in children: report of four cases and review of the literature. *J Surg Oncol*, 76(4), 289-296.
7. Strauss JF, Hirsch VJ, Rubey CN, Pollock M. (1993). Resection of a solid and papillary epithelial neoplasm of the pancreas following treatment with cis-platinum and 5-fluorouracil: a case report. *Med Pediatr Oncol*, 21(5), 365-367.
8. Das G, Bhuyan C, Das BK, Sharma JD, Saikia BJ, Purkystha J. (2004). Spleen-preserving distal pancreatectomy following neoadjuvant chemotherapy for papillary solid and cystic neoplasm of pancreas. *Indian J Gastroenterol*, 23(5), 188-189.
9. Maffuz A, Bustamante Fde T, Silva JA, Torres-Vargas S. (2005). Preoperative gemcitabine for unresectable, solid pseudopapillary tumour of the pancreas. *Lancet Oncol*, 6(3), 185-186.
10. Zauls JA., Dragun AE, Shama AK. (2006). Intensity-modulated radiation therapy for unresectable solid pseudopapillary tumor of the pancreas. *Am J Clin Oncol*, 29(6), 639-640.

