

Initial impact of a systematic multidisciplinary approach on the management of patients with gastroenteropancreatic neuroendocrine tumor

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INTRODUCTION

A multidisciplinary approach to gastroenteropancreatic (GEP) neuroendocrine tumors (NETs) is currently advised for the optimal care of patients with GEP NET. We decided to assess the initial impact of a systematic multidisciplinary approach on the management of the GEP NET patients under care at our Institution.

PATIENTS and METHODS

A systematic multidisciplinary approach to GEP NETs, including regular bimonthly multidisciplinary team meetings, has been established at our Institution from 1st May 2007. We have collected and compared the biochemistry (chromogranin A, hormonal markers), radiology (including endoscopy), and pathology data (Ki-67 and/or mitotic index) as well as the therapeutic strategies in the patients with GEP NET diagnosed, treated, and/or followed-up in our Institution since January 1993 to April 2007 (91 patients in 172 months) with those from patients that came to us after the multidisciplinary approach starting (42 patients from May 2007 to October 2008, 18 months). Fisher's exact test has been used for the statistical analysis of the data.

Table 2. Therapeutic management of GEP NET patients diagnosed, treated, or followed-up at our Institution before (n = 91) and after (n = 38) the set-up of a systematic multidisciplinary approach (1st May 2007). Up to the 31st October 2008, the decision on the treatment of the other 4 post-multidisciplinary approach patients was not taken yet.

*** p<0.0001

TABLE 2	from 1 st Jan 1993 to 30 th Apr 2007 (n = 91)	from 1 st May 2007 to 31 st Oct 2008 (n = 38)
Somatostatin analogs	11.0%	47.4% ***
Interferon α	1.1%	2.6%
Chemotherapy	11.0%	10.5%
Surgery	79.1%	81.6%
Chemoembolization	0%	5.3%
Radionuclide therapy	0%	0%
Radiotherapy	1.1%	2.6%
No treatment	8.8%	13.2%
Unknown	6.6%	0%

TABLE 1	from 1 st Jan 1993 to 30 th Apr 2007 (n = 91)		from 1 st May 2007 to 31 st Oct 2008 (n = 42)	
	pre-care	post-care	pre-care	post-care
Chromogranin A	0%		16.7% **	52.4% ***
Hormonal markers	17.6%	20.9%	35.7%	52.4% **
Imaging/endoscopy	54.9%	33.0%	83.3% *	73.8% ***
Ki-67/mitotic index	23.1%		52.4% *	

Table 1. Biochemistry, imaging/endoscopy, and pathology findings in GEP NET patients diagnosed, treated, or followed-up at our Institution before (n = 91) and after (n = 42) the set-up of a systematic multidisciplinary approach (1st May 2007).

* p<0.01

** p<0.001

*** p<0.0001

RESULTS

Before the establishment of the multidisciplinary approach, a lack of consistency in the laboratory, imaging/endoscopy, and pathology findings before the treatment (or the consideration for treatment) as well as in the follow-up of the patients was identified. These features have been at least partially reversed by the systematic multidisciplinary approach itself (*Table 1*). The impact of the multidisciplinary approach has been significant on almost all parameters considered. Also the therapeutic management of the pre-multidisciplinary approach patients was not consistent and has been altered by the multidisciplinary approach, achieving a significant impact in regard to the increased use of somatostatin analogs (*Table 2*).

CONCLUSION

Despite the overall improvement of the management of GEP NET patients, a further improvement needs to be achieved. This study suggests that a systematic multidisciplinary approach can significantly impact on GEP NET patient care and should be established in all centers dealing with these tumors.