GASTROINTESTINAL NEUROENDOCRINE TUMOURS: TUMOUR CHARACTERISTICS AND TREATMENT MODALITIES DETERMINE LONG-TERM CLINICAL OUTCOME


Background:
Prognosis of neuroendocrine tumours (NET) has been difficult to predict due to heterogeneous tumour biology, various classification systems, and lack of reliable and recent data due to the rarity of these tumours. Some prognostic factors have been identified1-3, however, either mostly single center-based surveys or focus on single subentities of these analyses limit the value of their results. On the other hand, epidemiological, histopathological and clinical data as well as information on overall and NET-specific outcome were obtained and analyzed.

registry, which is associated with the German Society for NET-specific outcome were obtained and analyzed.

aim of the study:
The German NET-registry collected data from patients with histologically proven NET from all over Germany. Epidemiological, histopathological and clinical data as well as information on overall and NET-specific outcome were obtained and analyzed.

Results:
Figure 1: Participating centers of the German NET-registry
Table 1: Basic data in the German NET-registry

<table>
<thead>
<tr>
<th>number of included cases:</th>
<th>2045</th>
</tr>
</thead>
<tbody>
<tr>
<td>number of evaluable cases:</td>
<td>1856</td>
</tr>
<tr>
<td>mean age at initial diagnosis:</td>
<td>65.3 yrs</td>
</tr>
<tr>
<td>median age at initial diagnosis:</td>
<td>58 yrs (range 13-93)</td>
</tr>
<tr>
<td>mean follow-up:</td>
<td>2.34 yrs</td>
</tr>
<tr>
<td>median follow-up:</td>
<td>1.53 yrs (range 1d-13.6yrs)</td>
</tr>
</tbody>
</table>

Figure 2: Primary tumour localizations (a), observed metastatic localizations (b) and prevalence of specific hormone hypersecretion syndromes (c) in the cohort

Table 2: Therapeutic modalities in the cohort (a) and success rates of surgery (b)

<table>
<thead>
<tr>
<th>Tx-mode</th>
<th>1st-line-Tx</th>
<th>as 1st-line-Tx</th>
</tr>
</thead>
<tbody>
<tr>
<td>surgery</td>
<td>1836</td>
<td>1370</td>
</tr>
<tr>
<td>medical Tx</td>
<td>1155</td>
<td>320</td>
</tr>
<tr>
<td>radionuclide Tx</td>
<td>411</td>
<td>61</td>
</tr>
<tr>
<td>ablative Tx</td>
<td>185</td>
<td>15</td>
</tr>
</tbody>
</table>

Conclusions:
The German NET-registry reports data from app. 2000 pts. with NET mostly of the GI-tract from 21 centers in Germany.

A preference of metastatic as well as pancreatic and small bowel NET is reported.

Carcinoid syndrome, hyperinsulinemic hypoglycemic neuroglycopenia (insulinoma syndrome) and Zollinger-Ellison syndrome are the most frequent functional syndromes.

Survival rates in this cohort with initial diagnosis since 1999 are very good when compared to historical cohorts.

Stratification according to WHO classification or to ENETS grading identify significant prognostic subgroups.

Analysis of this large cohort reveals improved survival in NET-patients with modern management strategies.

References:
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2 Pape UF et al. Prognostic relevance of a novel TNM classification system for upper GEP-NET. Cancer 2008
7 Lombard-Bohas C et al. Thirteen-month registration of patients with gastroenteropancreatic endocrine tumours in France. Neuroendocrinology 2009
8 Ahmed A et al. Midgut neuroendocrine tumours with liver metastases. Results of the UKI NETS study. Endocr Rel Cancer 2009
9 Plöckinger U et al. The German NET-Registry: An audit on the diagnosis and therapy of neuroendocrine tumours. Neuroendocrinology 2009

Methods:
Data from 2004 patients with NET were collected by specifically trained study nurses by structured extraction from clinical source documents after informed consent had been obtained and entered into a database (Microsoft Access)2. Data analysis was performed after structured data extraction and statistical assessment using SPSS Version 15.0.

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