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NET REGISTER

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Relevant prognostic parameters in pancreatic neuroendocrine tumours (NET)- Results of the German NET-Registry

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im Namen der Mitglieder des deutschen Registers für neuroendokrine gastrointestinale Tumore (NET-Register)

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Background:

Neuroendocrine tumours (NET) are a rare and heterogeneous group of epithelial neoplasm. Among them pancreatic NET compromise one of the largest subgroups with variable clinical outcome. Therefore prognostic stratification is essential for patient management and therapeutic decisions. Recently some clinical and histopathological factors proved to be of significant prognostic value[1-4]. Yet, these factors mostly come from single-center experiences or from population-based surveys. Single-center studies however usually suffer from small sample sizes and therefore lack information on distinct subentities. On the other hand population-based surveys are often limited by varying nomenclatures in the past and lack of detailed information. Therefore multi-centre studies provide a good possibility to apply potentially prognostic factors to a large cohort and enable subgroup analysis.

Aim of the study:

In a nationwide survey (figure 1) the German registry for gastrointestinal NET (G-NET-Reg) collected data from patients (pts) with histologically proven NET diagnosed since 1999. Epidemiological, histopathological and clinical data as well as information on outcome results were obtained and their relevance as prognostic factor in solely pancreatic NET (P-NET) was analyzed.

Results:

Figure 1: Participating centers within the German NET-registry

Table 1:
Basic data of P-NET in the German NET-registry

number of included cases :	687
female: male pts	335:352
mean age at inital diagnosis:	54.9 yrs
median age:	57 yrs (15-89 yrs)
mean follow-up:	36.1 months
median follow-up:	26 months

Figure 2: number of documented hypersecretion syndromes

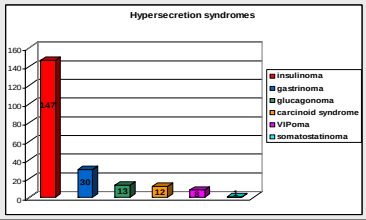


Figure 3: (a) Number of performed initial therapies and (b) overall survival in pancreatic NET

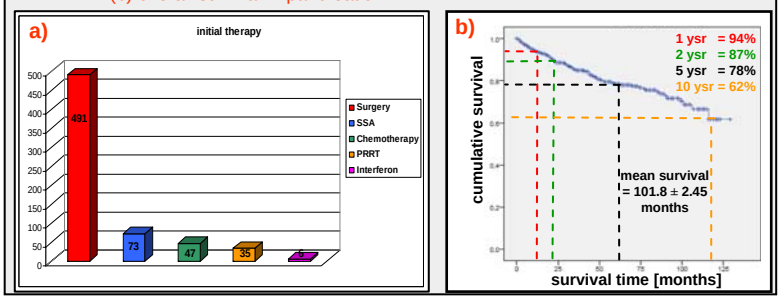


Figure 4: Analysis of prognostic value of tumour burden (limited disease, LD = stage I-IIIa, extensive disease, ED = stage IIIb-IV) (a) and WHO-classification (b) of 2000

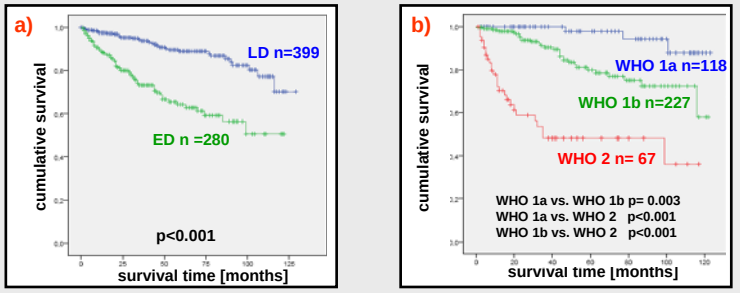


Figure 5: Analysis of prognostic value of ki-67 grading according to ENETS/AJCC/UICC (a) and different ki-67 cut off values of <5%, 6-20% and >20% (b)

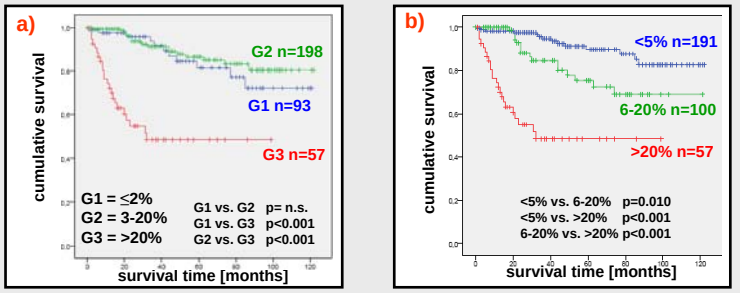
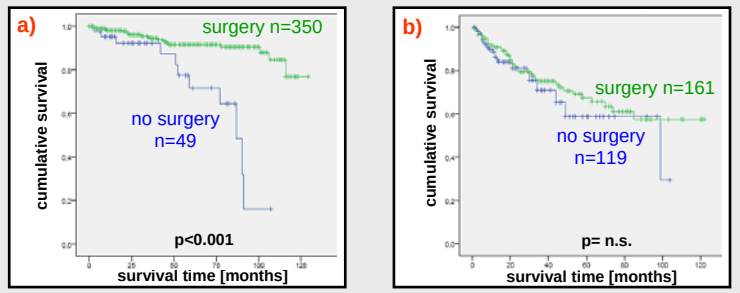


Figure 6: Influence of surgery on overall survival in patients with limited disease (LD = stage I-IIIa) (a) and in patients with extensive disease (ED = stage IIIb-IV) (b).



Conclusions:

- This large multi-centre cohort of the German NET registry allows significant subgroup analysis of pancreatic NET.
- Prognosis in pancreatic NET is based on histopathological classification according to WHO, grading according ki-67-index, as well as status of metastasis at initial diagnosis.
- Outcome of grade 1- and 2-NET according to ENETS/AJCC/ UICC-classification is often hard to predict especially in low proliferative G2-NET; a different cut-off-value of Ki67 5% may have more predictive power.
- Surgery proves to be favourable for prognosis in patients with limited i.e. non-metastatic disease (stage I-IIIa).
- These prognostic factors are therefore essential for patient management and decision of therapeutic strategy.

Methods:

Data from 2009 patients with NET were collected by specifically trained study nurses by structured extraction from clinical source documents and entered into a data base (Microsoft Access) after informed consent had been obtained[9]. Data analysis was performed after structured data extraction and statistical assessment using SPSS Version 15.0.

References:

1 Yao J et al JCO 2008
2 Pape UF et al. *Cancer* 2008
3 Panzutto F et al. *Endocr Rel Cancer* 2005
4 Ekeblad S et al, Cancer Res 2008

Acknowledgements:

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