**Supplementary Table 1.** Overview of the morphological criteria evaluated to establish consensus based criteria to separate NET G3 from NEC in patients with gastroenteropancreatic neuroendocrine neoplasms

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Architecture low mag**  | **Vessel pattern**  | **Stroma**  | **Co-existing neoplasm**  | **Architecture within nests**  |
| **WD** | Solid nests/ organoid Trabeculae/ small cores | Regular network, close to tumour cells  | No/ little fibrosis Hyalinised fibrosis | NET G1-2 | No  |
| **PD** | Confluent growthInfiltrative | Few, random, large | No/ little fibrosis Prominent desmoplasia | Precursor of- or non-neuroendocrine carcinoma | Yes |
|  | **Palisading**  | **Chromatin**  | **Ratio N/C**  | **Nuclear shape**  | **Nuclear variation**  |
| **WD** | Yes  | Homogenous density  | Low | Round/ ovoid  | No/ minimal variation  |
| **PD** | No  | Variable density | High  | Fusiform / classic small cell like  | Pleomorphism  |
|  | **Cytoplasm, amount**  | **Necrosis**  | **Intuitive gestalt**  |  |  |
| **WD** | Abundant  | Punctate necrosis  | Well- differentiated |  |  |
| **PD** | Scant | Geographic necrosis  | Poorly differentiated |  |  |

WD= well differentiated, PD= poorly-differentiated