INTEGRATION OF PATIENT REPORTED OUTCOMES (PRO) IN NEUROENDOCRINE TUMORS CARE: AN ASSESSMENT OF COGNITIVE AND PSYCHOLOGICAL SCREENING TOOLS DURING FOLLOW-UP

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BACKGROUND

- Global NETs Patient Survey highlighted unmet needs: emotional distress and quality of life issues, but relied on subjective assessments using non-validated tools;
- Unique potential impact of NETs on psyche due to hormonal secretion, hypothesized through tryptophan deficiency;
- Limited knowledge on burden of neuropsychological symptoms, impact on quality of life, course over time, how to screen and address them.

OBJECTIVE

To assess the burden of neuropsychological symptoms in NETs using validated PROs.

METHODS

RESULTS

CONCLUSION

Validated tools during maintenance therapy for NETs indicated:
- High prevalence of unsuspected signs of clinical depression (1 out of 5 patients)
- Perceived cognitive impairment
- Despite controlled symptoms, there is patient-reported impact on social functioning in the cognitive and quality of life domains.
This provides insights into solutions to improve patient-centred care for NETs:
- Routine screening for neuro-psychological and cognitive disturbances
- Tailor early support
- Address unmet needs for NETs patients and improve longitudinal care
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METHODS

*Prospective observational cohort study*

**Population:**
- >= 18 years old
- Bronchopulmonary or gastro-entero-pancreatic NETs

**Intervention:**
- Phone interviews - administration of validated tools
- Beck Depression Inventory - version 2 (BDI-II)
- Functional Assessment of Cancer Treatment Cognitive Domain (FACT-Cog)
- EORTC QLQ-C30 and GEPNET21
- Preference for psycho-social support: single multiple choice question (Likert scale)

**Analysis:**
- Descriptive: median scores and proportion of score severity
- Preliminary exploratory analysis: 2 months

**Flow diagram of patient identification**
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**Beck Depression Inventory**
- Assesses depression
- Validated for use in cancer patients: screening and case finding

**FACT-Cog**
- Assesses cognitive impairment
- Validated for use in cancer patients and survivors

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**Depression**
- Severe depression: 2.5%
- Moderate depression: 6.3%
- Clinical borderline depression: 17.5%
- Mild mood disturbances: 16.3%
- Normal ups and downs: 55.0%
- Null score: 2.5%

**Perceived cognitive impairment**
- Median: 61
- IQR: 50-68
- Possible range: 0-72

**Impact of perceived impairment on quality of life**
- Median: 14
- IQR: 11-16
- Possible range: 0-16

**Perceived cognitive ability**
- Median: 5
- IQR: 2-10
- Possible range: 0-28

**Comments from others**
- Median: 16
- IQR: 14-16
- Possible range: 0-16
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Quality of life: EORTC QLQ-C30 and GEPNET21

- **EORTC QLQ C30**: validated for use in cancer patients
- **EORTC GEPNET21**: supplement to the QLQ-C30 asking NET-specific questions, validated in NET populations

<table>
<thead>
<tr>
<th>Quality of life (from lowest - 0 to highest - 100)</th>
<th>Median</th>
<th>IQR</th>
<th>Comparison to general population</th>
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</thead>
<tbody>
<tr>
<td>Overall</td>
<td>83.3</td>
<td>66.7-91.7</td>
<td>Similar</td>
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<tr>
<td>Physical domain</td>
<td>86.7</td>
<td>76.7-100</td>
<td><strong>Worse</strong></td>
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<tr>
<td>Role domain</td>
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<td>66.7-100</td>
<td><strong>Worse</strong></td>
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<tr>
<td>Emotional domain</td>
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<td>58.3-93.7</td>
<td>Similar</td>
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<tr>
<td>Cognitive domain</td>
<td>83.3</td>
<td>66.7-100</td>
<td><strong>Worse</strong></td>
</tr>
<tr>
<td>Social domain</td>
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<td>66.7-100</td>
<td><strong>Worse</strong></td>
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<tr>
<td>Fatigue</td>
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<td>11.1-47.2</td>
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<tr>
<td>Nausea</td>
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<td>0-16.7</td>
<td>Similar</td>
</tr>
<tr>
<td>Pain</td>
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<td>0-33.3</td>
<td>Similar</td>
</tr>
<tr>
<td>Dyspnea</td>
<td>33.3</td>
<td>0-66.7</td>
<td><strong>Worse</strong></td>
</tr>
<tr>
<td>Insomnia</td>
<td>33.3</td>
<td>0-66.7</td>
<td><strong>Worse</strong></td>
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<tr>
<td>Appetite</td>
<td>0</td>
<td>0-8.3</td>
<td>Similar</td>
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<tr>
<td>Constipation</td>
<td>0</td>
<td>0-33.3</td>
<td>Similar</td>
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<tr>
<td>Diarrhea</td>
<td>0</td>
<td>0-33.3</td>
<td>Similar</td>
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<tr>
<td>Financial burden</td>
<td>0</td>
<td>0-33.3</td>
<td>Similar</td>
</tr>
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</table>

Symptoms (from midsted -0 to severe – 100)

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<tr>
<th>Symptoms</th>
<th>Median</th>
<th>IQR</th>
<th>Comparison</th>
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<tbody>
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<td>Psychology consultation</td>
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<td>Patient support group</td>
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</tr>
<tr>
<td>Psychiatry consultation</td>
<td>46.3%</td>
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Preference for psycho-social support