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Background: Neuroendocrine neoplasms most commonly arise from the gastroenteropancreatic (GEP) system. The WHO classification of digestive system tumors describes four main types: Neuroendocrine tumor (NET) grades 1-3 and neuroendocrine carcinoma (NEC). NECs have an aggressive biology and are often diagnosed in an advanced stage associated with poor prognosis. First-line palliative chemotherapy is commonly carboplatin or cisplatin in combination with etoposide, while in second-line treatment, platinum-based doublets are used. Objective response rates in the first and second line are around 30% and 15%, respectively.

Methods: We prospectively evaluated seven specific constructs (depression, anxiety, stress, Gsi, NET-related QoL, patient-physician relationship, psychological distress) by using validated screening instruments including the Depression, Anxiety and Stress Scale (DASS-21), the EORTC QLQ-C30, the EORTC QLQ GI.NET21, the patient-doctor relationship questionnaire 9 (PDRQ9) and the Impact of Event scale-revised (IES-R). Psychological distress was assessed using the Impact of Event scale-revised (IES-R).

Results: We enrolled 197 patients (98 males) with a median age of 62 years (G1/G2: 96%; pancreas: 29%; small bowel: 25%; active treatment: 38%). At W1, the prevalence of depression, anxiety and stress was 32%, 36% and 20% respectively. The frequency of depression and anxiety increased to 38% and 41% at W2, with no modifications in the frequency of stress. By ordinal logistic regression analysis, female patients showed more severe forms of stress at W1 (OR=0.45; p=0.01), while the educational status was associated with the levels of anxiety at both W1 (OR=1.33; p=0.02) and W2 (OR=1.45; p=0.02; p<0.03). An improvement of the physical (p=0.03) and emotional functioning domains (p=0.001) was observed over time. Both nausea/vomiting (p=0.0002), appetite (p=0.02), treatment-related symptoms (p=0.005), disease-related worries (p=0.0006) and sexual function (p=0.02) improved between W1 and W2, suggesting that NET patients were able to cope with the perturbations caused by the pandemic. No difference was seen between W1 and W2 in the mean score (>4.5) of the PDRQ9. By IES-R, post-traumatic stress disorder was observed in 53% of patients at W2.

Conclusions: The implementation of psychological interventions within NET clinics might favor functional coping strategies, attenuating the psychological distress caused by the COVID-19 pandemic.

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Background: Well-differentiated neuroendocrine tumors of the lung (Lung NET) are classified as typical (TC) and atypical (AC) carcinoids, on the basis of mitotic count and presence of necrosis. However, the identification of prognostic factors, other than TNM stage and histopathological diagnosis of AC versus TC, are still lacking.

Methods: We assessed the association of clinical and pathological data with survival in a multicenter retrospective series of 200 surgically resected Lung NET from 8 Italian & 1 Spanish Institutions. Patients data were collected and analysed by SPSS program.

Results: The study population presented a median age of 60 years (13-86), 40.0% male, 50.0% smoking history, 36.5% with a peripheral location. I&II TNM stages at diagnosis were present in 84.5% of cases, with 25% nodal positive status. Mitotic count >2/10 HPF in 31%, necrosis in 17.5%, Ki67 >20% in 8 patients (4%). The population had a median OS of 49 months (6.1-201), and a median DFS of 36.0 months (0.2-323). At Cox univariate regression model, male gender (p = 0.0001, p = 0.001), left side (p = 0.025, p = 0.015), nodal positive status (p = 0.0001, p = 0.0001), advanced TNM stage (p = 0.0001, p = 0.0001), mitotic count >2/10 HPF (p = 0.002, p = 0.001), Ki67 >20% (p = 0.017, p = 0.001), presence of necrosis (p = 0.011, p = 0.04), and AC histotype (p = 0.0001, p = 0.006), correlated with shorter PFS and OS, respectively. Tumoral peripheral location (p = 0.038) correlated with shorter OS. At Cox multivariate regression analysis, gender (male vs female) (p = 0.0057), tumor side (left vs right) (p = 0.0118), advanced stage (p = 0.002), a Ki67 >20% and/or a mitotic count >10/10 HPF (p = 0.0109), and the presence of necrosis (p = 0.0010) were confirmed as independent prognostic factors in terms of DFS. Gender (male vs female) (p = 0.027), tumor side (left vs right) (p = 0.0069) and advanced stage (p = 0.0208) were independent negative prognostic factors for OS. Conclusion: This study confirm the prognostic relevance of TNM stage and of the diagnosis of AC, to stratify NET patients. Additionally, our analysis suggests a potential prognostic value for new clinical and pathological features, as male gender, left-sided primary tumor and high proliferation index.

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