

Depression in Pancreatic Cancer: Sense of Impending Doom

Martina Mayr Roland M. Schmid

Internal Medicine II, Klinikum rechts der Isar, Technical University of Munich, Munich, Germany

Pancreatic cancer is still one of the malignancies with the worst prognosis and associated with a high prevalence of depression. This relationship was already described about 70 years ago, but is still poorly understood [1, 2]. Dealing with this subject, one pivotal question remains: is this depression a feature of pancreatic cancer per se or is it rather a response to the experience of gradual loss of strength and body weight in patients with a life-threatening diagnosis?

In this issue of *Digestion*, Lin et al. [3] report on the incidence of depression and quality of life in patients suffering from pancreatic cancer prior to surgery or chemotherapy comparing their cohort with patients with gastrointestinal cancer of other origin. All 262 recruited patients met the inclusion criteria which postulated them to be inpatients with an assured cancer diagnosis (pancreatic, liver, esophageal, gastric or colorectal cancer) and without any history of psychological or psychiatric diseases. Clinical features like age, gender, TNM stages and treatment strategy were well balanced. The incidence of depression was significantly higher in patients with pancreatic carcinoma than in those with other cancers of the digestive system. 78% of the pancreatic cancer patients suffered from depression and 60% of liver cancer patients, but only 36% of gastric cancer, 24% of esophageal cancer and 19% of colon cancer patients. The differences between pancreatic carcinoma and the other gastrointesti-

nal cancers were statistically significant [3]. These findings are consistent with the data published so far.

After the initial description in 1931, several studies have reported on the association between pancreatic cancer and the triad of anxiety, depression and ‘sense of impending doom’ [1, 2, 4, 5]. Remarkably high incidence rates were affirmed by a study in 1993 which showed depressive symptoms in 71% of the explored pancreatic cancer patients and ‘anxiety-related symptoms’ in 48% of the patients [6]. In a comprehensive review, Massie [7] referred to the prevalence of depression in pancreatic cancer between 33 and 50%. Different from the study by Lin et al. [3], some trials performed prior to confirmation of cancer diagnosis observe psychological symptoms preceding somatic disorders [8, 9]. Therefore, a discussion about ‘mental symptoms as an aid in early diagnosis of pancreatic cancer’ was started [10–12].

This refers to the initial question for the scientific background concerning the bidirectional relationship between depression and pancreatic cancer. Lin et al. [3] documented by the presented analysis a linkage to TNM stages and intended treatments (chemotherapy or surgery) representing a patient’s assumed life expectancy and hope for recovery. This burden of emotional distress exceeding the patient’s capability of coping with tumor disease frequently results in development of major depression. In contrast, reporting high incidence rates for

depression in pancreatic cancer, Lin et al. also mentioned that ‘there was no statistically significant difference in knowing the diagnosis or not’. Among these patients, depression developed independent of awareness of ‘impending doom’. According to this observation it is still under discussion whether pancreatic cancer induces depression or whether depression enhances the risk of tumor development [4, 13].

Evaluating depression incidence rates, there is still no consensus about the appropriate instrument to identify depression in cancer patients, especially to differentiate between major depression and ‘quite normal’ psychological distress while coping with cancer diagnosis. The general classification complies with the Diagnostic and Statistical Manual of Mental Disorders DSM-IV. Lin et al. [3] used HAMD-24 as the rating scale for depression. This Hamilton Rating Scale for Depression has been a standard instrument for peer assessment of depression’s severity since 1970 [14], but HAMD as well as CPRS (Comprehensive Psychopathological Rating Scale) or MADRS (Montgomery-Åsberg Depression Rating Scale) [15] are in fact no diagnostic instruments for depression but measures of illness severity. It is still discussed whether these rating scales are suitable for primary identification of major depression [16–18]. Self-assessment instruments like Beck’s Depression Inventory could support a reliable identification. To avoid in particular an immoderate influence of somatic symptoms in screening for depression, the Hospital and Anxiety Depression Scale has been designed [18]. The great influence of anxiety and depression on life quality emerges in several studies [18–20]. Meanwhile, assessment of life quality is highly standardized enabling us to judge treatment benefit. In the current tri-

al by Lin et al. [3], EORTC QLQ-C30 was employed additionally in patients with pancreatic cancer who were evaluated by the EORTC QLQ-PAN-26 questionnaire. In the group of patients with pancreatic cancer the most significant impairment was denoted in scores of physical, role, emotional and cognitive functioning with a special impact on social functioning. The score of symptom scales, in particular fatigue and pain, was also significantly higher in the pancreatic cancer group, but there was no evidence for a statistically significant difference in the global QLQ scale. Comparing pancreatic cancer patients with and without depression, a significant deterioration of life quality was shown. According to these findings, patients with pancreatic cancer and depression suffered fatigue, pain and appetite loss more than depressive patients with other gastrointestinal malignancies [3]. Accordingly, the association between pain and depression is well documented [21, 22] and chronic pain is undoubtedly a crucial factor in judging quality of life [19].

Though the question for the link between pancreatic cancer and depression remains unanswered, review of the data published so far confirms the utmost importance of paying attention to depressive reactions in pancreatic cancer patients and care for adequate treatment. The article presented by Lin et al. [3] demonstrating the extraordinarily high incidence rates of pancreatic cancer-related depression and its strong impact on quality of life is an important contribution to these considerations. Further investigation and interventional trials in particular are required in order to determine this extraordinary correlation of psychological and pathophysiological findings.

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