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MENTAL HEALTH AND CANCER SURVIVORS

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INTRODUCTION

- Depressive Disorder is frequently observed in individuals with cancer, occurring at rates up to four times higher than in the general population.
- *Its presence is associated with poorer clinical outcomes, including reduced adherence to treatment plans and increased mortality.*
- Emerging insights into the neurobiological basis of depression suggest that overlapping biobehavioral pathways may also influence cancer development and progression.
- Additionally, the psychological stress linked to cancer can lead to: (1) heightened inflammation and oxidative/nitrosative stress; (2) impaired immune system surveillance; and (3) abnormal functioning of both the autonomic nervous system and the hypothalamic-pituitary-adrenal (HPA) axis.
- Therefore, early detection of depression in cancer patients — who may benefit from targeted interventions addressing mood symptoms, cognitive decline, fatigue, and sleep issues — is an urgent health concern. (Beatrice B, Thomas NH, Sara V, Giulia P, Michael M, Gerwyn M et all. Depression in cancer: The many biobehavioral pathways driving tumor progression. Cancer Treat Rev . 2017 Jan:52:58-70. doi: 10.1016/j.ctrv.2016.11.004)

CASE REPORT

- 66 years old lady, married, mother of two; No family history of cancer
- *3/2021*: Ca mammae ductale lat. dex. Ms hepatis. Status post biopsiem.
- IHC= ER neg PR neg Her2/ neu 3+ (HER2 positive)

- (Primary metastatic disease)

- *3/2021-8/2022*: First line chemotherapy + First line biological therapy (**Trastuzumab + Pertuzumab)**

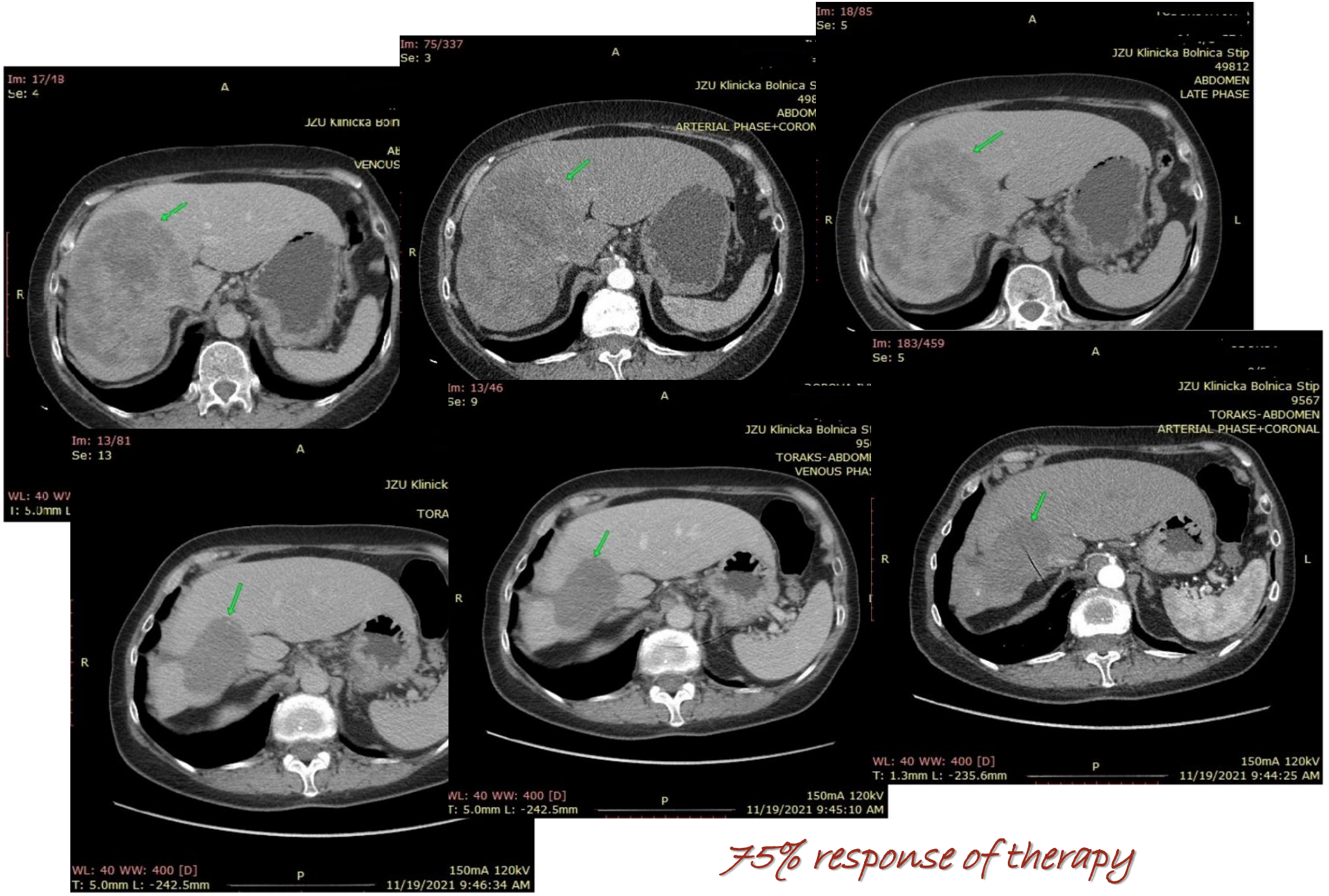
- Mastectomia radicalis lat dex,pT1b (0.8cm) G2 ypN0 (0/9) /
- IHC: Er neg PR neg Her2/neu 3+ (HER2 positive)

- As a result of chemotherapy, the patient developed pain and numbness in her hands and feet, after which she was prescribed: combination of Palmitoylethanolamide – PEA 300 mg + Superoxide dismutase 70 IU + Alpha-lipoic acid 300 mg once daily/ per os

- From the very beginning of the treatment, the patient felt fear of the outcome, fear and concern about the condition. The main symptoms were severe motivational problems, pronounced depression, and hopelessness. She repeatedly experienced intense fear that she would no longer be able to cope with everyday life or that she would die from the illness.

- Trazodone (100+0+100, followed by 100+0+200) was prescribed by her primary care physician.

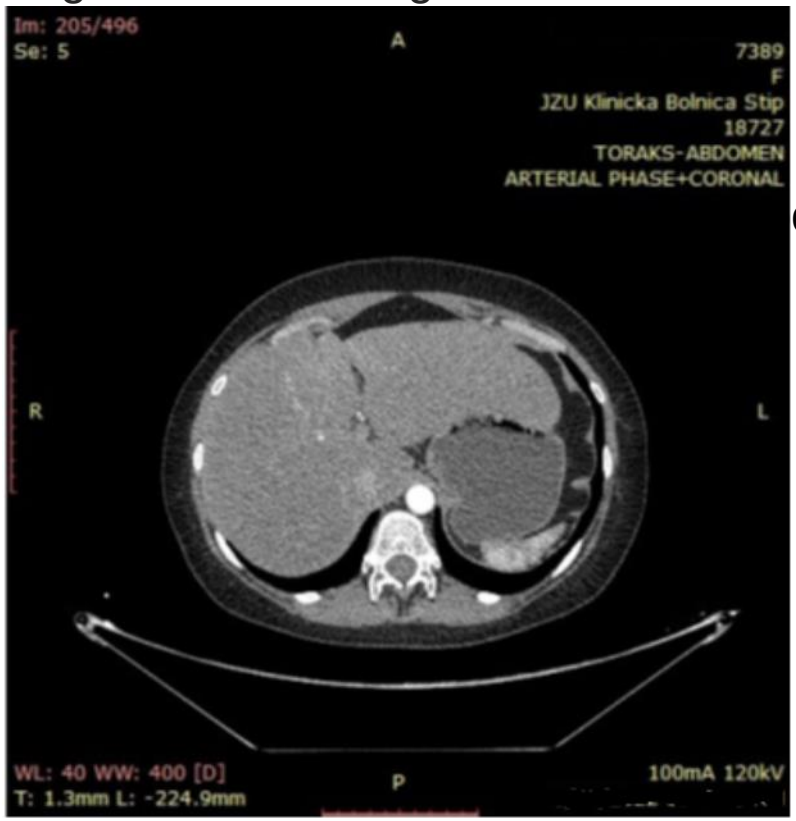
- The patient fell at home and broke her ankle, which required surgery. This increased her symptoms of depression and fear of further treatment.
- We discussed the further planned oncological treatment and the positive outcome of the treatment so far.



75% response of therapy

- *8/2022-12/2024*: Second line chemotherapy + Second line biological therapy **(Ado-trastuzumab emtasine)**

- The patient fell twice, once at the clinic and once in her bathroom at home. She reported pain in her left shoulder and right thigh. After seeing the trauma surgeons, she was given a shoulder brace. She had no fracture.

- The patient was stable with her primary 

onse to the hepatic metastases.

Complite response

Regarding her psychological state, she was referred for psychiatric evaluation.

What to do next?

From the report:

She had exhaustion as a side effect of chemotherapy, as well as pain in her hands. She found it very difficult to write, eat, and pick things up. She also reported a great fear of dying. She no longer felt like doing anything and no longer felt any joy. Lately, she had been spending a lot of time in bed.

BDI-II score on admission: **29 points**, (mild depression)
HAMD score on admission: **19 points**, (severe/moderate depression)
SCL-90-S: The SCL-90-S indicated a **strongly elevated level of psychological distress** (GSI: T70). Seven of the nine clinical scales were elevated.

The value on the **somatization scale was very significantly elevated** (T75).

The values on the **depression** (T71) and **phobic anxie**ty (T72) scales were **significantly elevated**.

The values on the **anxiety** (T66), psychoticism (T66), and **compulsivity** (T68) scales were **significantly elevated**.

The value on the Aggression/Hostility scale (T62) was slightly elevated.

Values on the Paranoid Thinking (T40) and Social Contact Insecurity (T59) scales were unremarkable and average.

- The serotonin antagonist and reuptake inhibitor (SARI) Trazodone has a good sleep-inducing effect, generally no weight gain, no sexual dysfunction, benefits for depressed patients with anxiety symptoms and no anticholinergic properties. (Otto Benkert, Hanns Hippius. *Psychiatrische Pharmakotherapie* . ISBN 978-3-662-50332-4)

- Due to the frequent side effect profile of Trazodone with orthostatic blood pressure drop and dizziness, was assumed that this was the reason for the fall (suspected orthostatic dysregulation) and it was discontinued after 2 weeks. (Isabella B, Andrea A, Francesco B, Alessandro C, Giacomo D, Gaia S, Maurizio P. *Rethinking the role of trazodone in the different depressive dimensions.* Expert Rev Neurother . 2024 Jul;24(7):619-632. doi: 10.1080/14737175.2024.2363843)

- The antidepressant Trazodone was replaced by Milnacipran.

- Milnacipran is not metabolized by cytochrome P450, with relatively low pharmacokinetic interaction potential, predominantly renal elimination, no anticholinergic side effects or weight gain. (Otto Benkert, Hanns Hippius. *Psychiatrische Pharmakotherapie* . ISBN 978-3-662-50332-4)
- After thorough psychoeducation, particularly regarding the possible adverse effects of Milnacipran therapy, *Milnacipran (25-25-0-0) was then administered.*

- During the night at home, the patient appeared tense and confused.
- Milnacipran therapy discontinued after five days due to delirious symptoms.
- The assessment revealed that this was ***purely a side effect of the medication***, manifested by the build-up of drug levels. At that time, ***there was no indication of serotonin syndrome***. But the patient did not want to continue with this medication any longer.

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- A high percentage of oncology patients (between 15 and 75%) suffer from pain.

- Dual-action antidepressants in the form of serotonin and norepinephrine reuptake inhibitors (SNRIs) can be used here. By activating the pain-inhibiting pathways in the spinal cord, they have an analgesic effect and serve as co-analgesics. SNRIs include Duloxetine, Milnacipran, and Venlafaxine. (Portenoy RK: *Treatment of cancer pain.* Lancet Lond Engl 2011; 377: 2236-47)

- Subsequently, *Duloxetine (30-0-0-0mg) was administered for a period of two days.*

- However, due to the occurrence of diarrhea and at the patient's request, the medication was discontinued.

In the absence of acute depressive symptoms, a detailed psychoeducational intervention was carried out with the patient and her relatives to discuss the possibility of additional prophylactic pharmacotherapy.

It became clear that both the patient and her family had significant fears about a recurrence of the illness.

Finally, non-medicinal therapy units, such as daily physical activity and participation in group activities at the psychiatric outpatient clinic, were discussed in detail with the patient.

However, the patient remained ambivalent on this point.

The patient has stable disease from the underlying disease, without visceral metastases
She is still on maintenance biological therapy with regular check ups of her disease
OS 53 MONTHS

- The patient was encouraged to engage in regular physical activity and relaxation techniques through frequent coaching sessions, which in the moment she is able to implement with the help of her husband.
- Discussions here are problem-solving-centered with a cognitive behavioral focus.
- Due to the complex nature of the condition, she is monitoring whether psychopharmacology will still be necessary in the further course of treatment.