

# PROMs, quality of life and treatment effects during oncological indoor rehabilitation – analysis of 1230 cases

## Supportive & Palliative care, Rehabilitation & Survivorship

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### Introduction

Modern, increasingly multimodal cancer therapy is becoming more and more efficient, but at the price of a variety of somatic side effects and toxicities. These complaints and cancer diagnosis can lead to high psychological stress and a reduced quality of life. The aim of this prospective study was to record these complaints at the beginning of oncological rehabilitation and to analyze the therapeutic effects of multimodal treatment until the end of rehabilitation.

### Methods

Between 10/2020 and 04/2024, 1230 patients (51.4% female) were examined for the presence of somatic and psychological complaints and quality of life after admission using standardized questionnaires (ESAS, SIF, PROMIS-10, EQ-5D). In addition, physical performance was recorded using a 6-minute walk test, time-up-and-go test (TUG), hand strength (JAMAR) and FIM measurement. To evaluate the rehabilitation effects, a second assessment was carried out before discharge..

Cancer diagnosis

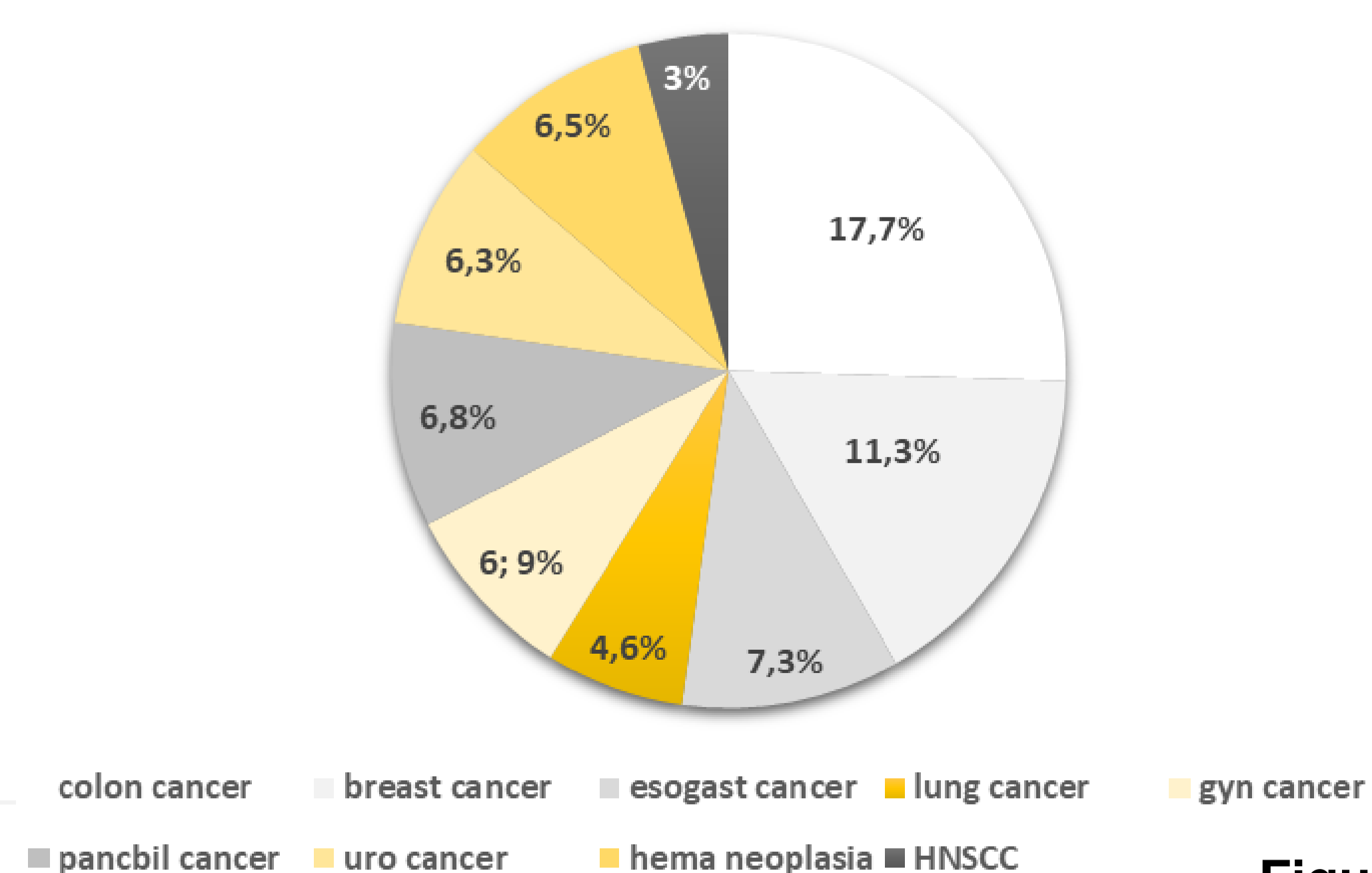


Figure 1

### Results (I)

The mean age was 64.2 +/- 12.7 years. Most patients had colorectal cancer (n=219; 17.7%), breast cancer (n=140; 11.3), and pancreas/biliary tract/liver (n=130; 10.5%; see **fig. 1**). The mean ESAS showed a high burden of somatic impairments ( $3.4 \pm 1.3$ ), especially fatigue (n=529; 43%  $\geq$  score 4). This was also confirmed by SIF (n=480  $\geq$  4). Other common complaints were loss of appetite/taste (n=322; 26.2%  $\geq$  score 4) and significantly reduced well-being (n=288; 23.4%  $\geq$  score 4, see **fig. 2**). Furthermore, PROMIS-10 and EQ-5D showed significantly reduced quality of life (QoL; mean score  $50.9 \pm 20.3$ ).

Tumor-induced side effects and symptoms (ESAS)

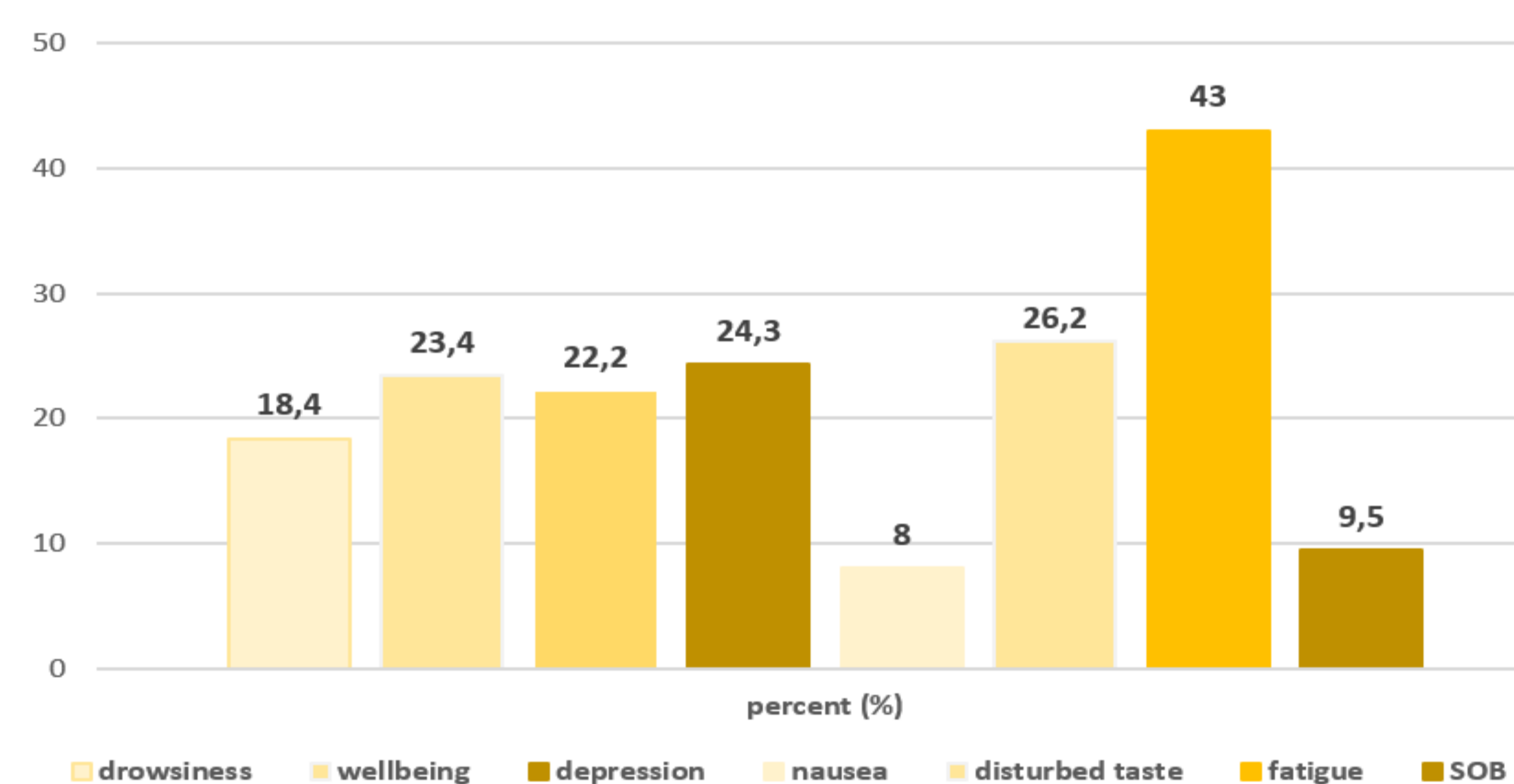


Figure 2

### Results (II)

In 925 cases (75,2%) a second assessment could be carried out before discharge. The PROMIS-10 score showed a highly significant improvement ( $14.3 \pm 2.6$  vs.  $11.9 \pm 2.6$ ,  $p < 0.001$ ; see **fig. 3**). In particular, fatigue improved significantly in the ESAS and SIF ( $3.6 \pm 1.9$  vs.  $2.1 \pm 1.7$ ,  $p < 0.001$ ) as well as the functional independence (FIM:  $97.6 \pm 19.2$  vs.  $107.8 \pm 19.4$ ;  $p < 0.001$ ).

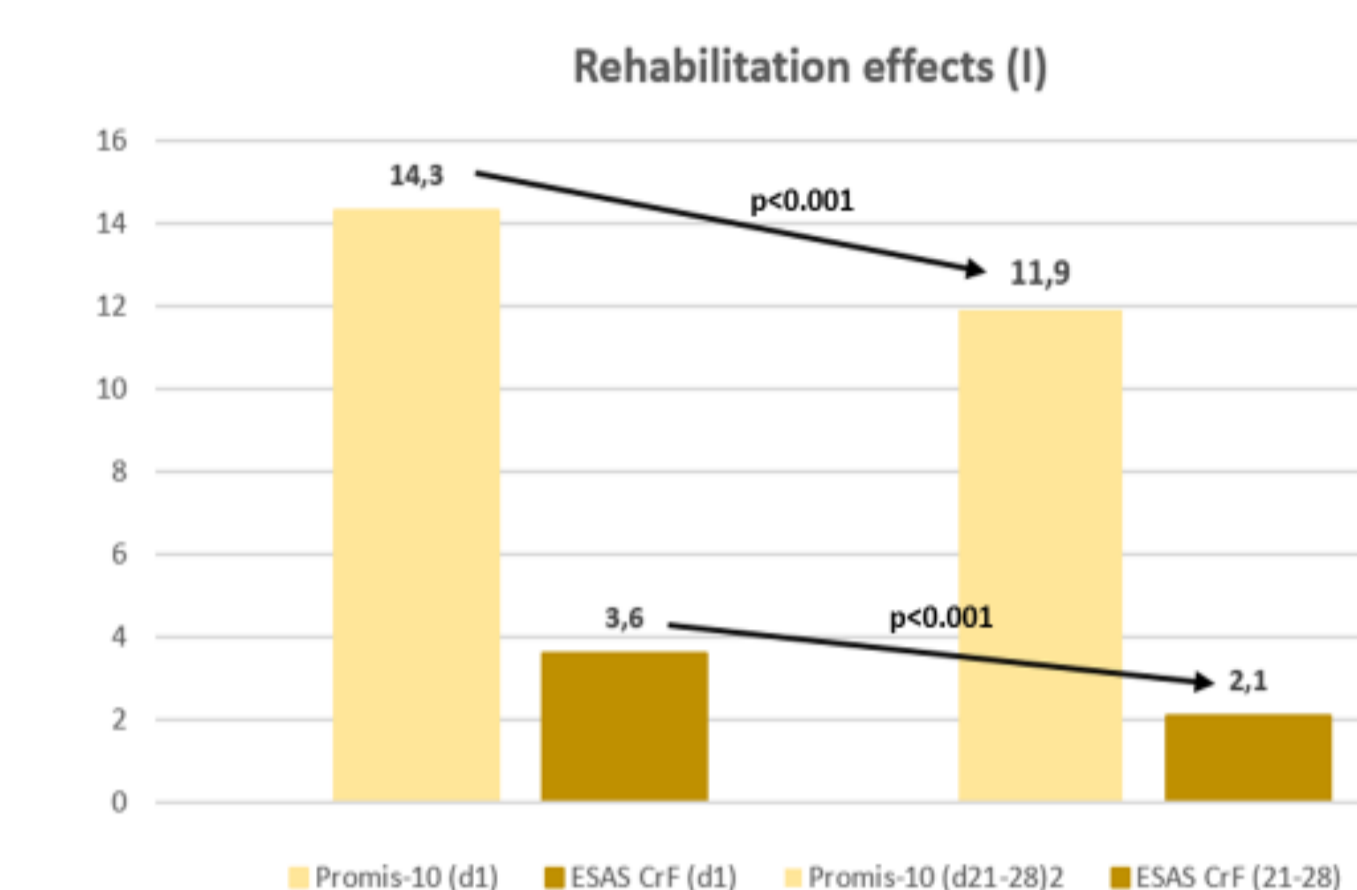


Figure 3

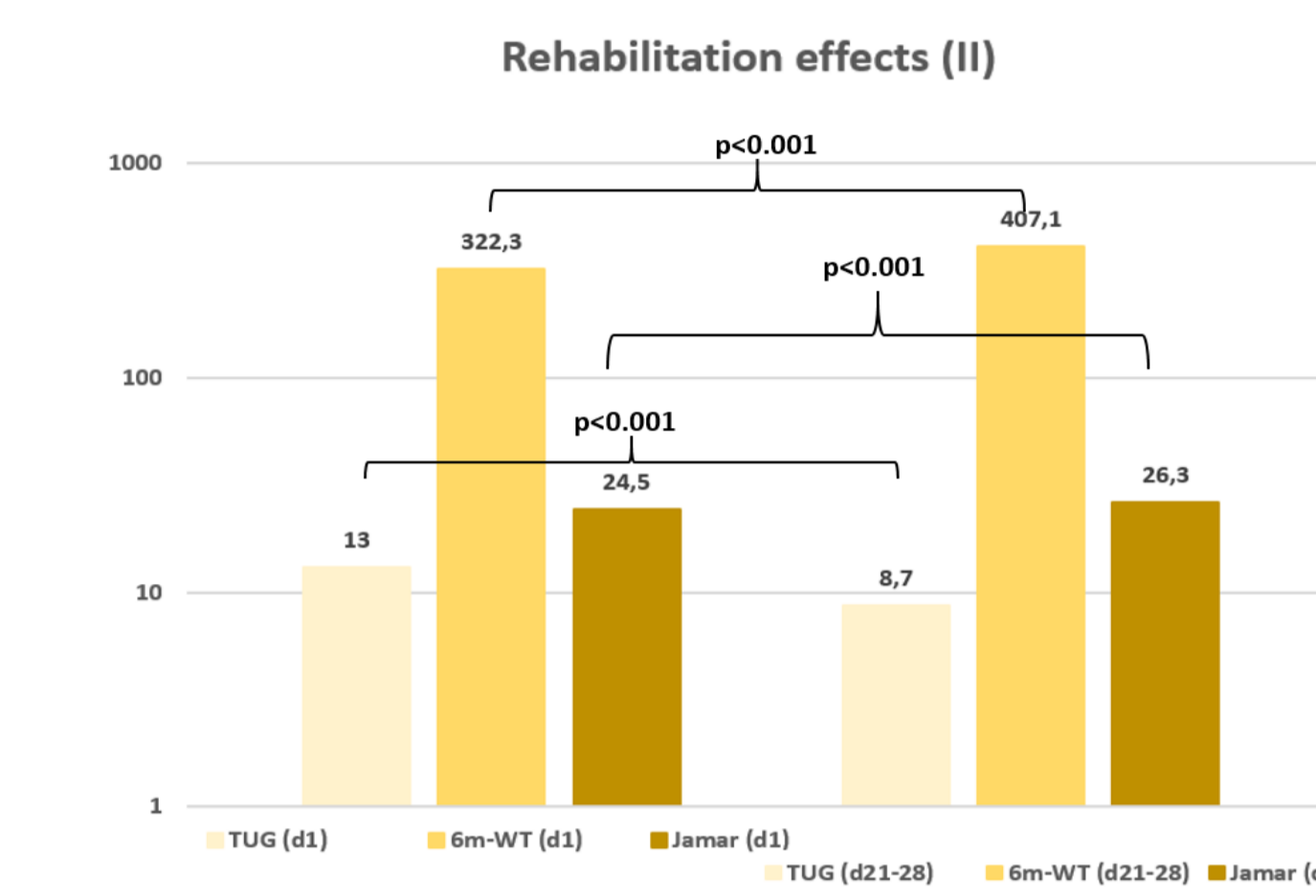


Figure 4

These results were also confirmed by the physical function tests (6min walking test  $322.3 \pm 185.2$ m vs.  $407.1 \pm 207.2$ m; TUG  $13.0 \pm 12.4$ s vs.  $8.7 \pm 6.2$ s; Jamar  $26.3 \pm 10.9$  vs.  $24.5 \pm 11.3$ ; respectively  $p < 0.001$ ). In addition, there was also a highly significant improvement in QoL compared to the values before rehabilitation (EQ-5D:  $50.9 \pm 20.3$  vs.  $66.3 \pm 19.8$ ;  $p < 0.001$ ; see **fig. 4**).

### Conclusions

Our data demonstrate the high rehabilitation needs of oncological patients. Additionally, our data prove the high efficiency and effectiveness of oncological rehabilitation both in the alleviation of somatic and psychological impairments and thus leads to a significant improvement in the mostly severely impaired quality of life of those affected. Therefore, multimodal oncological rehabilitation should be an integral part of interdisciplinary cancer treatment.

Offenlegung potenzieller Interessenkonflikte:  
 1. Anstellungsverhältnis oder Führungsposition  
 2. Beratungs- bzw. Gutachtertätigkeit  
 3. Besitz von Geschäftsanteilen, Aktien oder Fonds  
 4. Patent, Urheberrecht, Verkaufslizenz  
 5. Honorare  
 6. Finanzierung wissenschaftlicher Untersuchungen  
 7. Andere finanzielle Beziehungen  
 8. Immaterielle Interessenkonflikt

Holger G. Hass & Co-Autoren  
 keine  
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