

Implementation of a health-economic analysis tool in a certified oncological centre offering Integrative Oncology concepts

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PURPOSE

Integrative oncology (IO) concepts are utilized to a high extent by oncological patients [1, 2], may be effective in treatment [3] and offer cost-saving options from the hospital perspective [4]. To evaluate the impact of IO on the health-related quality of life we started in November 2018 to adapt the EQ-5D-5L questionnaire to our hospital's routine to extend our portfolio of health-economic evaluations. The primary objective of the present prospective longitudinal pilot study was to analyse whether the EQ-5D-5L can be implemented in the clinical routine of a certified cancer centre offering IO.

- 1) Schad et al. Complement Med Res. 2018;25(2):85-91
- 2) Thronicke et al. Complement Ther Med. 2018; 40:151-157
- 3) Schad et al. Plos One 2018;13(8):30203058
- 4) Thronicke et al. Plos One 2020.

METHODS

Longitudinal real-world data study (Network Oncology, DRKS00013335). Inclusion of oncological patients >18 years receiving IO therapy in a certified German Cancer Centre. The extension of the vote of the ethics committee to implement the EQ-5D-5L questionnaire was received at the beginning of November 2018. Only questionnaires of three consecutive time points (T0, T6months, T12months) of patient's answers were analysed. The impact of IO therapies (standard oncological care plus add-on mistletoe extracts, VA) compared to standard oncological care only were evaluated. Statistical analyses : R 3.6.1 and excel.

RESULTS

400 primary oncological patients of the certified cancer centre answered the EQ-5D-5L questionnaires from January 2019 to September 2020. Of these, 95 oncological patients answered consecutive time points (T0, T6months, T12months).

At first diagnosis 34% of the patients reported mobility burden, 33% reported self-care burden, 69% reported general activity burden, 68% reported pain and discomfort, and 59% reported overall and 9% severe anxiety and depression. Only 14% had no problems in any dimension of the questionnaire.

At 12 month the proportion of patients reporting pain and discomfort (76%) as well as mobility burden increased (42%) while the proportion of patients stating general activity burden (56%), selfcare burden (14%) or severe anxiety and depression decreased (5%). Overall anxiety and depression remained stable (59%). EQ-VAS level increased by 8% within 12 months revealing an improvement of patient-reported health status.

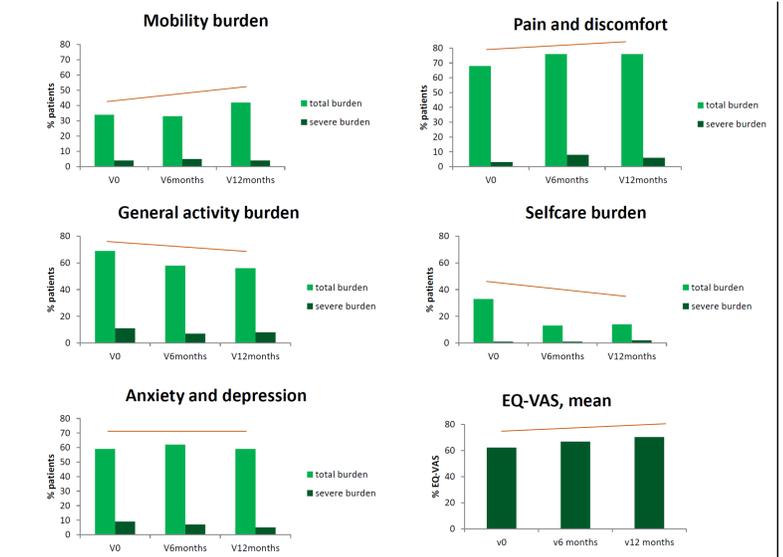
Oncological patients, especially lung cancer patients, receiving VA extracts in addition to standard oncological care revealed improved health-related quality of life: the quality adjusted life year (QALY) difference was 0.18 [95%CI: 0.05-0.31]).

Baseline characteristics

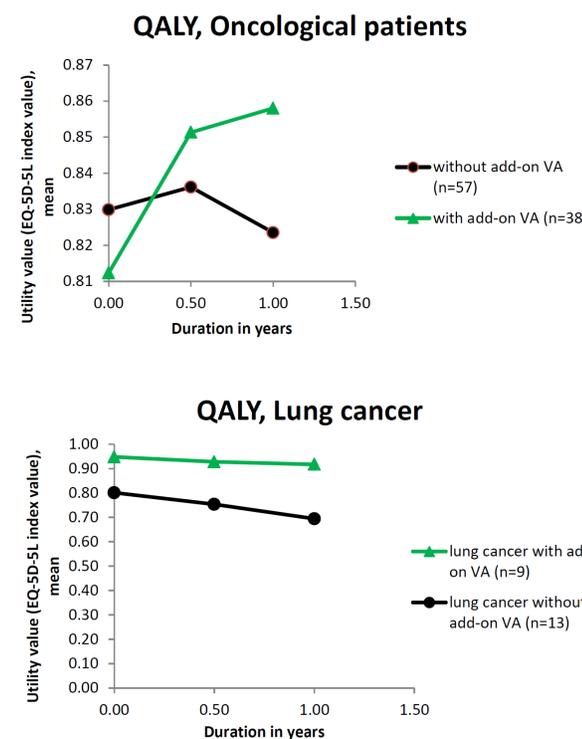
N =95	
Age, years, median (IQR)	65 (55.8-72.6)
Gender, female	70 (73.7)
Breast cancer, n (%)	53 (55.8)
Lung cancer, n (%)	22 (23.2)
Gastrointestinal and other cancer, n (%)	20 (21.1)

RESULTS

Course of quality of life in oncological patients



Impact of IO concepts (add-on VA) on QALYs



Impact of IO concepts (add-on VA), QALY utility values

Oncological patients, n=95

Time point	Add-on VA group mean (SD)	Control group mean (SD)	p-value
At baseline	0.81 (0.18)	0.83 (0.17)	0.63
At 6 months	0.85 (0.15)	0.84 (0.20)	0.68
At 12 months	0.86 (0.14)	0.82 (0.20)	0.33
Over duration of study ¹⁾	0.84 (0.14)	0.83 (0.18)	0.72

Lung cancer patients, n=22

Time point	Add-on VA group mean (SD)	Control group mean (SD)	p-value
At baseline	0.95 (0.05)	0.80 (0.25)	0.12
At 6 months	0.93 (0.06)	0.75 (0.30)	0.12
At 12 months	0.92 (0.07)	0.69 (0.32)	0.06
Over duration of study ¹⁾	0.93 (0.05)	0.75 (0.28)	0.09

¹⁾ Calculation of total QALYs according to Manca et al. Health Econ 2005; 14: 487-496; add-on VA, additional Viscum album L. (mistletoe) extracts

CONCLUSIONS

The EQ-5D-5L has been successfully implemented into our routine care since its introduction to our certified oncological centre in 2019. Thus, we could add a helpful health-economic tool for the evaluation of IO concepts and their impact. We started to analyse the quality-adjusted life years (QALYs) of our oncological patients receiving IO concepts including add-on VA therapy. Based on this pilot study, IO concepts appear to have a positive impact in terms of QALYs. We plan to supplement our data with further cost and cost-utility analyses that include a larger number of patients who respond to the EQ-5D-5L questionnaire.

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