

How a gynecologic oncology unit became „The Happiest Place On Earth”

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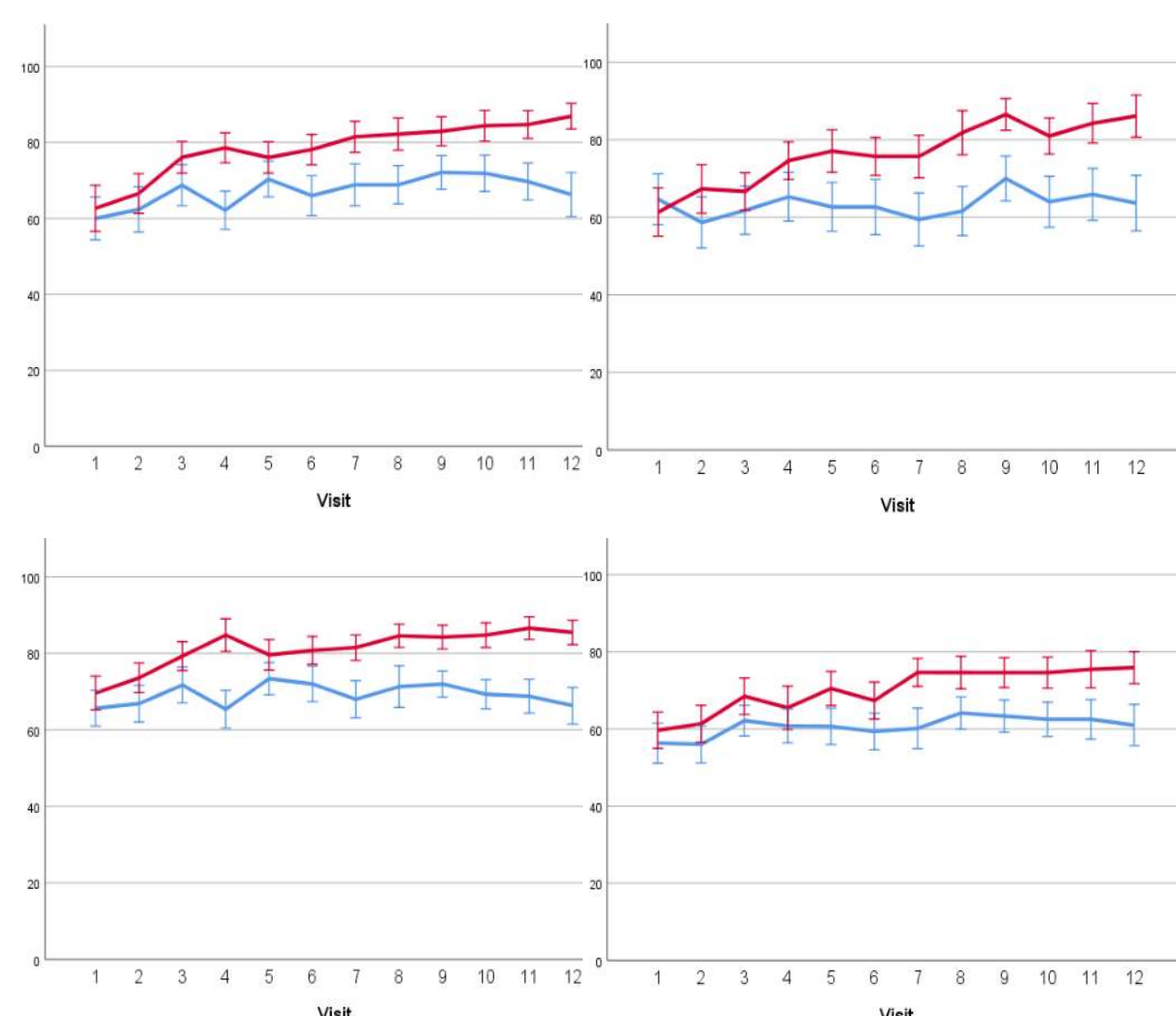
Background

Beside treatment efficacy, evaluation of side effects and quality of life (QoL) assessments has become more and more relevant in oncology. The EORTC QLQ-30 questionnaire examines different aspects of QoL (1). Recent studies suggest that music interventions during chemotherapy may have a benefit on QOL (2). In this study, the influence of Disney movies during chemotherapy on emotional and social functioning as well as fatigue status was evaluated.

Methods

In this prospective trial 50 patients with gynecologic cancers were either shown Disney movies or not during six cycles of chemotherapy. All patients received platinum based combination chemotherapy. Before and after every cycle, patients filled out standardized questionnaires from The European Organization for Research and Treatment of Cancer (EORTC QLQ-30 & FA12). Changes in QoL were evaluated.

Figure 1. Mean emotional functioning (A), social functioning (B), fatigue (C) and global health status (D) score before and after six cycles of chemotherapy in patients watching Disney movies or not. p=0.0217 (A), p=0.0143 (B), p=0.0092 (C) and p=0.1576 (D). Disney | Control |



References

- (1) Aaronson NK, Ahmedzai S, Bergman B, Bullinger M, Cull A, Duez NJ, Filiberti A, Flechtner H, Fleishman SB, de Haes JC, et al. The European Organization for Research and Treatment of Cancer QLQ-C30: a quality-of-life instrument for use in international clinical trials in oncology. *J Natl Cancer Inst.* 1993;85(5):365-76.
- (2) Bradt J, Dileo C, Magill L, Teague A. Music interventions for improving psychological and physical outcomes in cancer patients. *Cochrane Database Syst Rev.* 2016 Aug 15;(8):CD006911
- (3) Nolte S, Liegl G, Petersen MA, Aaronson NK, Costantini A, Fayers PM, Groenvold M, Holzner B, Johnson CD, Kemmler G, Tomaszewski KA, Waldmann A, Young TE, Rose M; EORTC Quality of Life Group. General population normative data for the EORTC QLQ-C30 health-related quality of life questionnaire based on 15,386 persons across 13 European countries, Canada and the United States. *Eur J Cancer.* 2019;107:153-163.

Results

Patient characteristics were well balanced between groups. After six cycles of chemotherapy, patients in the Disney group felt less tensed and worried less than patients in the control group (86.9 (14.3) vs. 66.3 (27.2)). Furthermore, watching Disney movies seemed to be associated with less encroachment in patients' family life and social activities evaluated by the social functioning questions (86.1 (23.0) vs. 63.6 (33.6)). Moreover, this intervention led to less fatigue symptoms (85.5 (13.6) vs. 66.4 (22.5)). Perceived global health status was not affected by watching Disney movies (75.9 (17.6) vs. 61.0 (25.1)).

Table 1. Patient characteristics

| | Disney (n=25) | Control (n=25) | p | |
|------------------------------------|------------------------|----------------|---------|-------|
| Age (years)* | 59 (12) | 62 (8) | 0.297 | |
| Body mass index (kg/m2)* | 24.3 (5.5) | 26 (6.2) | 0.329 | |
| Cancer type# | Ovarian | 19 (76) | 20 (80) | 0.771 |
| | Endometrial | 3 (12) | 4 (16) | |
| | Cervical/Vulvar | 3 (12) | 1 (4) | |
| Chemotherapy# | Carboplatin/Paclitaxel | 19 (76) | 18 (72) | 1.000 |
| | Carboplatin/PLD | 6 (24) | 7 (28) | |
| Weight loss after 6 cycles of CHT* | 0.0 (3.7) | -1.4 (3.9) | 0.181 | |

Data are presented as *mean (standard deviation) or #numbers (frequencies). Welch-Satterthwaite t-test

Table 2. Emotional and social functioning and global health status before the first and after the last chemotherapy, comparison Disney group and control group. General population, 50-59 years, female (3).

| | Disney (n=25) | Control (n=25) | General population |
|----------------------------|--------------------|----------------|--------------------|
| Emotional functioning V1* | 62.7 (30.2) | 60.0 (28.1) | 71.0 (24.1) |
| Social functioning V1* | 61.3 (31.1) | 64.7 (32.7) | 83.8 (25.7) |
| Global health status V1* | 59.7 (23.7) | 56.3 (26.1) | 62.6 (22.5) |
| Emotional functioning V12* | 86.9 (14.3) | 66.3 (27.2) | 71.0 (24.1) |
| Social functioning V12* | 86.1 (23.0) | 63.6 (33.6) | 83.8 (25.7) |
| Global health status V12* | 75.9 (17.6) | 61.0 (25.1) | 62.6 (22.5) |

Data are presented as *mean (standard deviation)

Conclusion

Watching Disney movies during chemotherapy leads to improvements in emotional functioning, social functioning and fatigue status in gynecologic oncology patients.