Thai Journal of Obstetrics and Gynaecology
March 2021, Vol. 29, No. 2, pp. 60-64

SPECIAL ARTICLE

Quality of Life Assessment in Gynecologic Cancer Patients: An overview

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ABSTRACT

The treatment of gynecologic malignancies, including endometrial, cervical, ovarian and vulvar cancers, is often incorporating a combination of surgery, chemotherapy, and radiation. The improvement of cancer treatment brings better oncologic outcome. Consequently, the survivors among these patients are increasing. Nowadays, many of cancer researches focus not only the treatment efficacy, but also the quality of life (QOL) of the cancer patients during the process of treatment and afterwards. As a view of gynecologists, we should pay attention to the QOL aspect along with treatment options. Here, we provided a short overview in the QOL assessment in gynecologic cancer patients.

Keywords: gynecologic cancer, health-related quality of life, quality of life, survivorships.

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Received: 19 February 2021, **Revised:** 20 February 2021, **Accepted:** 21 February 2021

Introduction

Among approximate 70,000,000 Thai people, there were 190,636 newly diagnosed cancer cases in 2020. Half of them were female. Cervical cancer which was the most common gynecologic cancer in Thailand, was in the third rank for Thai female common cancer, followed after breast and colon cancer. As 9,158 new cases of cervical cancer were annually diagnosed, the mortality was around half of the patients[1]. The other common gynecologic cancers were the cancer of endometrium and ovary. Both incidence and survival are increasing in all groups of gynecologic cancers due to improvement of the diagnostic tools and treatment, although the prognosis is still poor for women diagnosed with ovarian cancer[2-4]. Nowadays, most of the treatment options are surgery, radiation, chemotherapy, targeted therapy, immunotherapy, or combination of these treatment. Regardless of cancer origin or age of onset, the disease and its treatment can produce short- and long-term consequences that adversely affect quality of life (QOL). Traditionally, biomedical and not QOL outcomes have been the principal endpoints in medical and health research. However, during the past decades, more research has focused on patients' QOL, and the use of QOL assessments has increased[5]. According to the holistic care of cancer patients, health care providers should concern not only the cancer treatment outcome, but also the QOL of cancer patients[6-8]. This article outlines about general aspects of the QOL, especially in the gynecologic cancers.

Definition

There is no uniform definition of the concept. The World Health Organization (WHO) outlines one definition of QOL; "An individual's perception of their position in the life in the context of the culture in which they live and in relation to their goals, expectations, standards and concerns"[9]. Moreover, the term health-related quality of life (HRQOL) is often described as: "A term referring to the health aspects of quality of life, generally considered to reflect the impact of disease and treatment on disability and daily functioning; it has also been considered to reflect the impact of perceived health on an individual's ability to live a fulfilling life. However, more specifically HRQOL is a measure of the value assigned to duration of life as modified by impairments, functional states, perceptions and opportunities, as influenced by disease, injury, treatment and policy"[10].

QOL assessment tools

QOL is a complex concept that is interpreted and defined in a number of ways within and between various disciplines. So, many different instruments are now used to assess QOL. Patient-reported outcome measures (PROMs) provide the patients' perspective on health, services, and the level of care received, without interpretation by a clinician or anyone. A PROM may be generic or disease-specific, and can assess symptoms, function (physical, emotional, social, and sexual), and HRQOL[11]. Validation of the tool, through testing its psychometric properties within the population in which it is used, is important, as the characteristics are population-specific. There is general agreement that multidimensional HRQOL assessment should at least include physical, social and psychological/ emotional functioning and well-being[12]. The validity and suitability of such HRQOL tools, is represented by their psychometric properties.

Psychometric properties indicate if a measurement tool is; free of error (reliability), assesses what it is intended to measure (validity), is able to detect change in an individual over time (responsiveness), and the degree to which one can assign qualitative meaning to quantitative scores (interpretability)[13]. Since the psychometric properties of a measurement tool can differ per target population, it is recommended that they are evaluated in that specific target population. A review of PROMs for some cancers found of which most commonly recommended the 36-Item Short Form health survey (SF36) and the Euroqol-5D (EQ5D) as generic tools, and the European Organization for Research and Treatment of Cancer, Quality of Life Questionnaire, Core module (EORTC QLQ-C30) or the Functional Assessment of Cancer Therapy-General (FACT-G) as cancer-specific tools[14]. Most of the tools have been

translation and validation in Thai version. Here, the focusing QOL assessment methods were focused on the gynecological cancer-specific tools.

PROMs in the gynecologic cancer setting

A systematic review summarized PROMs into 7 areas of focus within the gynecologic cancer setting[14].

1. Generic tools (used with cancer and non-cancer populations)
2. General cancer tools (used with any type of cancer)
3. Pelvic cancer tools (used with cancers that were in the pelvic region, but not limited to a single tumor type)
4. Ovarian cancer tools
5. Cervical cancer tools
6. Endometrial cancer tools
7. Vulval cancer tools

General tools

Two generic tools were identified: the SF36 and EQ5D. The SF36 addressed 7 domains, whereas the EQ5D addressed 6 domains. The EQ5D had more psychometric testing than the SF36. There was good evidence of validity for both tools. Because of the lack of testing across disease groups and the limited psychometric evidence, the recommendation did not for the use with a mixed gynecologic oncology population.

General cancer

Five tools were identified that have been designed for use with patients with any type of cancer: EORTC QLQ-C30, FACT-G, the Quality of Life-Cancer Survivors (QOL-CS), the Rotterdam Symptom Checklist (RSCL), and the Self-Reporting Questionnaire (SRQ). The 2 most tests tools were the EORTC QLQ-C30 and the FACT-G. Both tools had been tested with ovarian and cervical cancer populations. Similar psychometric properties had been assessed and were found to have good evidence. As a result, both the FACT-G and the EORTC QLQ-C30 are recommended as the most robust and appropriate general cancer tools for use within gynecologic cancer patients.

Pelvic cancer

Four tools were identified as being designed for use and assessed within a population with cancer affecting the pelvic region: the Quality of life and Utility Evaluation Survey Technology-Gyn (QUEST GY), the Supportive Care Needs Survey (SCNS), the uro-gynecological questionnaire (UGQ), and the Late Effects Normal Tissue Task Force - Subjective, Objective, Management, Analytic (LENT SOMA). QUEST GY and SCNS were found to be the most psychometrically robust. However, QUEST GY was developed with more comprehensive testing, shorter, also had been developed to be used with a touch screen. As a result, QUEST GY is recommended as the most robust and appropriate tool for use in pelvic cancer populations.

Ovarian cancer

Three tools used for patients with ovarian cancer: the European Organization for Research and Treatment of Cancer, Quality of Life Questionnaire, Ovarian cancer module (EORTC QLQ-OV28), the Functional Assessment of Cancer Therapy- Ovarian cancer (FACT-O), and the NCCN/FACT Ovarian Symptom Index (NFOSI-18). Overall, the EORTC QLQ-OV28 is recommended as the most robust tool and appropriate tool for use with ovarian cancer patients[15].

Cervical cancer

Two tools were identified: the Functional Assessment of Cancer Therapy – Cervical cancer (FACT-CX) and the European Organization for Research and Treatment of Cancer, Quality of Life Questionnaire, Cervical cancer module (EORTC QLQ-CX24). Both tools demonstrated robust psychometric properties in terms of reliability. The EORTC tool was tested in a diverse range of settings, and with the largest population of cervical cancer patients. Therefore, the EORTC QLQCX24 is recommended as the most appropriate

tool for use with this population[12, 16].

Endometrial cancer

The European Organization for Research and Treatment of Cancer, Quality of Life Questionnaire, Endometrial cancer module (EORTC QLQ-EN24) was the single tool, designed for use with endometrial cancer patients.

Vulva cancer

One tool was developed and tested within patients with cancer of the vulva: the Functional Assessment of Cancer Therapy-Vulvar cancer (FACT-V)[17].

Conclusion

To understand the QOL of the gynecologic cancer patients, health care providers should know about the standard assessment tools. Most of these tools were patient-reported outcome measures which were generic, cancer-specific, and cancer type specific. In gynecologic cancer researches, SF36 and EQ5D were commonly applied as general assessment tools, while FACT-G and EORTC QLQ-C30 were used to assess as the general cancer tools. There were cancer-type specific assessment tools such as EORTC QLQ-OV28 or FACT-O for ovarian cancer -specific tools, EORTC QLQCX24 or FACT-CX for cervical cancer-specific tools, and EORTC QLQ-EN24 for endometrial cancer-specific tools.

Potential conflicts of interest

The author declares no conflict of interest.

References

1. Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F. Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer, 2020. Available from: https://gco.iarc.fr/today, accessed [19 Feb 2021].
2. Imsamran W, Pattatang A, Supaattagorn P, Chiawiriyabunya I, Namthaisong K, Wongsena M, Puttawibul P, Chitapanarux I, Suwanrungruang K, Sangrajrang S, Buasom R. Cancer in Thailand Vol IX, 2013-2015. Bangkok: New Thammada Press (Thailand) Co., Ltd, 2018.
3. Imsamran W, Chaiwerawattana A, Wiangnon S, Pongnikorn D, Suwanrungrung K, Sangrajrang S, Buasom R. Cancer in Thailand Vol. VIII, 2010-2012. Bangkok: New Thammada Press (Thailand) Co., Ltd, 2015.
4. Khuhaprema T, Attasara P, Sriplung H, Wiangnon S, Sangrajrang S. Cancer in Thailand Vol VII, 2007-2009. Bangkok: New Thammada Press (Thailand) Co., Ltd, 2013.
5. Staquet M, Berzon R, Osoba D, Machin D. Guidelines for reporting results of quality of life assessments in clinical trials. Qual Life Res 1996;5:496-502.
6. Lokich E. Gynecologic Cancer Survivorship. Obstet Gynecol Clin North Am 2019;46:165-78.
7. Sekse RJT, Dunberger G, Olesen ML, Østerbye M, Seibaek L. Lived experiences and quality of life after gynaecological cancer-An integrative review. J Clin Nurs 2019;28:1393-421.
8. Wu HS, Harden JK. Symptom burden and quality of life in survivorship: a review of the literature. Cancer Nurs 2015;38:E29-54.
9. The World Health Organization Quality of Life assessment (WHOQOL): position paper from the World Health Organization. Soc Sci Med 1995;41:1403-9.
10. Haraldstad K, Wahl A, Andenæs R, Andersen JR, Andersen MH, Beisland E, et al. A systematic review of quality of life research in medicine and health sciences. Qual Life Res 2019;28:2641-50.
11. Valderas JM, Alonso J. Patient reported outcome measures: a model-based classification system for research and clinical practice. Qual Life Res 2008;17:1125-35.
12. Tax C, Steenbergen ME, Zusterzeel PL, Bekkers RL, Rovers MM. Measuring health-related quality of life in cervical cancer patients: a systematic review of the most used questionnaires and their validity. BMC Med Res Methodol 2017;17:15.
13. Mokkink LB, Terwee CB, Patrick DL, Alonso J, Stratford PW, Knol DL, et al. The COSMIN study reached international consensus on taxonomy, terminology, and definitions of measurement properties for health-related patient-reported outcomes. J Clin Epidemiol 2010;63: 737-45.
14. Preston NJ, Wilson N, Wood NJ, Brine J, Ferreira J, Brearley SG. Patient-reported outcome measures for use in gynaecological oncology: a systematic review. BJOG 2015;122:615-22.
15. Chase DM, Wenzel L. Health-related quality of life in ovarian cancer patients and its impact on clinical management. Expert Rev Pharmacoecon Outcomes Res 2011;11:421-31.

16. Pfaendler KS, Wenzel L, Mechanic MB, Penner KR. Cervical cancer survivorship: long-term quality of life and social support. Clin Ther 2015;37:39-48.
17. Luckett T, King M, Butow P, Friedlander M, Paris T. Assessing health-related quality of life in gynecologic oncology: a systematic review of questionnaires and their ability to detect clinically important differences and change. Int J Gynecol Cancer 2010;20:664-84.