

## The Importance of Fertility Preservation Counseling in Patients with Gynecologic Cancer

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It is estimated that gynecologic cancer has an incidence of 17% in the world (1). The most common gynecologic cancer is endometrial cancer with an incidence of 53% (2, 3). Although in most cases endometrial cancer manifests during menopause, in 25% of cases it can affect women in premenopausal age and in 2% of cases under the age of 40 (2). The treatment of this type of gynecological cancer is usually surgical and includes hysterectomy and bilateral salpingo oophorectomy (4-6). Adjuvant chemotherapy and/or radiotherapy is recommended in cases at high risk of recurrence and in the later stages of cancer (2, 6).

Ovarian cancer is the second most common gynecological malignancy and the leading cause of death for gynecologic cancer in Western countries (2). In most cases, it is diagnosed in advanced stages and mainly affects women aged between 55 and 65. The treatment of ovarian cancer usually involves a combination of surgery and chemotherapy (7-9).

Cervical cancer is the second cancer in women worldwide. However, in Western countries, thanks to the diffusion of prevention campaigns through systematic screening program for women aged between 25 and 65, the incidence of this cancer has been greatly reduced (10). Cervical cancer is often diagnosed in reproductive age and surgical treatment may be placed alongside radiation therapy (2, 11).

Thanks to progress made in the field of gynecologic oncology, the survival rate for women with gynecologic cancer is greatly increased over the

years. Consequently, a primary objective in these cases is to gradually improve the quality of life of patients. Indeed, the experience of a gynecological cancer has a very strong impact on the psychological well-being of women; surgical treatment and chemotherapy can impair female identity and also sexual functioning (2, 3, 12-14).

Several studies confirm that women with gynecologic cancer experience low levels of quality of life, anxiety and depressive symptoms, suicidal thoughts, feelings of anger and shame, and low self-esteem (1, 3, 12-17).

Moreover, when cancer affects women in child-bearing age, treatments can jeopardize reproductive capacity. The possible infertility due to cancer in women can be more devastating than the cancer itself and the possibility to have a child after cancer can be an important incentive in the therapeutic process (18-20).

In the light of these general considerations, techniques for fertility preservation in women with gynecologic cancer can be very important for the improvement of quality of life of these patients (19-21). In Italy, according to the Guidelines for the preservation of fertility in cancer patients published in 2003, a conservative therapy for fertility preservation may be proposed in case of good prognosis and only in the presence of close follow-up and in cancer centers with experience and adequate follow-up protocols (22).

Several international studies have shown that an adequate counseling about the fertility preservation treatments is associated with an improved quality of life of women who survive from a gy-

necological cancer (19-22). However, in many cases, there is not adequate information about this type of treatment. The aforementioned Guidelines recommend that reproductive counseling should be offered immediately after the cancer diagnosis in order to come to an agreement with the patient about the best fertility preservation technique which varies depending on the cancer and reproductive prognosis (22).

Reproductive counseling requires a multidisciplinary approach since it is necessary not only to choose the most appropriate preservation technique according to the prognosis and the risk of infertility related to cancer treatments, but also to assess the real motivation of woman to face a pregnancy and to become mother (22, 23).

Therefore, the presence of the psychologist, along with the oncologist and the specialist in reproductive medicine, is important to convey correct information to patients with gynecological cancer who wish to preserve their procreative capacity (24, 25).

In conclusion, it is appropriate to conduct further research about this topic in order to minimize the impact of cancer treatments on quality of life and psychological well-being of women with gynecological cancer.

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#### **Conflict of Interest**

The authors report no conflicts of interest.

#### **References**

1. Carter J, Stabile C, Gunn A, Sonoda Y. The physical consequences of gynecologic cancer surgery and their impact on sexual, emotional, and quality of life issues. *J Sex Med.* 2013;10 Suppl 1:21-34.
2. Huffman LB, Hartenbach EM, Carter J, Rash JK, Kushner DM. Maintaining sexual health throughout gynecologic cancer survivorship: A comprehensive review and clinical guide. *Gynecol Oncol.* 2016;140(2):359-68.
3. Jeppesen MM, Mogensen O, Dehn P, Jensen PT. Needs and priorities of women with endometrial and cervical cancer. *J Psychosom Obstet Gynaecol.* 2015;36(3):122-32.
4. Rossetti D, Bogani G, Carnelli M, Vitale SG, Grosso G, Frigerio L. Efficacy of IVF following conservative management of endometrial cancer. *Gynecol Endocrinol.* 2014;30(4):280-1.
5. Vitale SG, Valenti G, Gulino FA, Cignini P, Biondi A. Surgical treatment of high stage endometrial cancer: current perspectives. *Updates Surg.* 2016;68(2):149-54.
6. Rossetti D, Vitale SG, Gulino FA, Cignini P, Rapisarda AMC, Biondi A, et al. Concomitant chemoradiation treatment in selected stage I endometrioid endometrial cancers. *Eur J Gynaecol Oncol.* 2016;37(5):657-61.
7. Vitale SG, Marilli I, Lodato M, Tropea A, Cianci A. The role of cytoreductive surgery in advanced-stage ovarian cancer: a systematic review. *Updates Surg.* 2013;65(4):265-70.
8. Bellia A, Vitale SG, Laganà AS, Cannone F, Houvenaeghel G, Rua S, et al. Feasibility and surgical outcomes of conventional and robot-assisted laparoscopy for early-stage ovarian cancer: a retrospective, multicenter analysis. *Arch Gynecol Obstet.* 2016;294(3):615-22.
9. Rossetti D, Vitale SG, Gulino FA, Rapisarda AMC, Valenti G, Zigarelli M, et al. Laparoscopic single-site surgery for the assessment of peritoneal carcinomatosis resectability in patients with advanced ovarian cancer. *Eur J Gynaecol Oncol.* 2016;37(5):671-3.
10. Thigpen SC, Geraci SA. Cancer Screening 2016. *Am J Med Sci.* 2016;352(5):493-501.
11. Kokka F, Bryant A, Brockbank E, Powell M, Oram D. Hysterectomy with radiotherapy or chemotherapy or both for women with locally advanced cervical cancer. *Cochrane Database Syst Rev.* 2015;(4):CD010260.
12. Izycki D, Woźniak K, Izycka N. Consequences of gynecological cancer in patients and their partners from the sexual and psychological perspective. *Prz Menopauzalny.* 2016;15(2):112-6.
13. Vitale SG, La Rosa VL, Rapisarda AM, Laganà AS. Comment on: "The consequences of gynecological cancer in patients and their partners from the sexual and psychological perspective". *Prz Menopauzalny.* 2016;15(3):186-7.
14. Becker M, Malafy T, Bossart M, Henne K, Gitsch G, Denschlag D. Quality of life and sexual functioning in endometrial cancer survivors. *Gynecol Oncol.* 2011;121(1):169-73.
15. Vitale SG, La Rosa VL, Rapisarda AM, Laganà AS. Comment on: "Anxiety and depression in patients with advanced ovarian cancer: a prospective study". *J Psychosom Obstet Gynaecol.* 2017;38(1):83-4.

16. Mielcarek P, Nowicka-Sauer K, Kozaka J. Anxiety and depression in patients with advanced ovarian cancer: a prospective study. *J Psychosom Obstet Gynaecol.* 2016;37(2):57-67.
17. Laganà AS, La Rosa VL, Rapisarda AM, Vitale SG. Comment on: "Needs and priorities of women with endometrial and cervical cancer". *J Psychosom Obstet Gynaecol.* 2017;38(1):85-6.
18. Vitale SG, La Rosa VL, Rapisarda AM, Laganà AS. Psychology of infertility and assisted reproductive treatment: the Italian situation. *J Psychosom Obstet Gynaecol.* 2017;38(1):1-3.
19. Angarita AM, Johnson CA, Fader AN, Christianson MS. Fertility Preservation: A Key Survivorship Issue for Young Women with Cancer. *Front Oncol.* 2016;6:102.
20. Letourneau JM, Ebbel EE, Katz PP, Katz A, Ai WZ, Chien AJ, et al. Pretreatment fertility counseling and fertility preservation improve quality of life in reproductive age women with cancer. *Cancer.* 2012;118(6):1710-7.
21. Reh AE, Lu L, Weirnerman R, Grifo J, Krey L, Noyes N, et al. Treatment outcomes and quality-of-life assessment in a university-based fertility preservation program: results of a registry of female cancer patients at 2 years. *J Assist Reprod Genet.* 2011;28(7):635-41.
22. AIOM: Scientific Documents [Internet]. Milan: Italian Association of Medical Oncology. c2017. Guidelines "Preservation of fertility in cancer patients"; 2015 [cited 2016 Dec 1]; [about 2 screens]. Available from: <http://www.aiom.it/professionisti/documenti-scientifici/linee-guida/preservazione-fertilita/1,713,1,#>
23. Baysal Ö, Bastings L, Beerendonk CC, Postma SA, IntHout J, Verhaak CM, et al. Decision-making in female fertility preservation is balancing the expected burden of fertility preservation treatment and the wish to conceive. *Hum Reprod.* 2015;30(7):1625-34.
24. Lawson AK, Klock SC, Pavone ME, Hirshfeld-Cytron J, Smith KN, Kazer RR. Psychological Counseling of Female Fertility Preservation Patients. *J Psychosoc Oncol.* 2015;33(4):333-53.
25. Bastings L, Baysal Ö, Beerendonk CC, IntHout J, Traas MA, Verhaak CM, et al. Deciding about fertility preservation after specialist counselling. *Hum Reprod.* 2014;29(8):1721-9.