



CODEN [USA]: IAJPBB

ISSN: 2349-7750

**INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES**Available online at: <http://www.iajps.com>

Research Article

OVARIAN ADENOCARCINOMA - A REVIEW ARTICLE

Fateme Parooei, Sara Zamanpour, Morteza Salarzaei*

Medical student, Student Research Committee, Zabol University of Medical Sciences, zabol,
Iran**Abstract:**

Introduction: Among all the female reproductive system cancer, ovarian malignancies have been allocated most of the clinical studies. Since they usually remain asymptomatic until metastasis, epithelial ovarian cancers are the most common ovarian malignancies that are advance when diagnosed in more than two thirds of the patients.

Methods: In this review article, the databases Medline, Cochrane, Science Direct, and Google Scholar were thoroughly searched to identify the Ovarian Adenocarcinoma. In this review, the papers published until early January 2017 that were conducted to study the Ovarian Adenocarcinoma were selected.

Results: The ovary is in the form of two small glands on both sides of uterus that is covered by the end of ovarian tube. Ovarian epithelial cancers are the most common cancers that remain asymptomatic until metastasis; they have the highest rate of mortality among all kinds of malignancies of female reproductive system.

Discussion and conclusion: The incidence of different kinds of ovarian cancer are included among the cases that have not been given due attention so far. However, they have turned out to be challenging issues. Ovary adenocarcinoma cervicitis constitutes

Key words: Ovarian, Adenocarcinoma

Corresponding author:**Morteza Salarzaei,**

Medical student,

Student Research Committee,

Zabol University of Medical Sciences,

Zabol, Iran

Email: mr.mortezasalar@gmail.com

Tell : +989120644917

QR code



Please cite this article in press as Morteza Salarzaei et al, Ovarian Adenocarcinoma - A Review Article, Indo Am. J. P. Sci, 2017; 4(10).

INTRODUCTION:

Among all the female reproductive system cancer, ovarian malignancies have been allocated most of the clinical studies (1). Since they usually remain asymptomatic until metastasis, epithelial ovarian cancers are the most common ovarian malignancies that are advanced when diagnosed in more than two thirds of the patients (2). Ovarian cancer is one of the basic issues of surgery that is in need of serious and often complicate treatment and reduces the patient's mental as well as physical energy. In comparison to other malignancies of the female reproductive system, ovarian cancer has the highest rate of mortality (3). Every year, more than 23300 new cases of this cancer are diagnosed in the United States. It is expected that 13900 women die from this disease every year. The incidence risk of ovarian cancer is about 1.5% in women's life and the ovarian cancer's mortality risk is around 1%. This cancer is the sixth most important female cancer in western countries (4). Ovarian cancer is also ranked the fifth cancer mortality cause in the United States and it is a really fatal cancer. With respect to anatomical aspects, ovary includes three main parts: outer cortex, central medulla, and ovarian network. Ovarian navel is the attachment point of ovary to mesovarium (5). This part contains nerves, blood vessels, and navel cells that are able to be active in the steroidization process. The most outermost part of the cortex is called Tunica albuginea which is covered with an cubic epithelial layer (6). Ovarian epithelial cancer constitute almost 90% of ovarian cancers that are heterogeneous and their ranking is based on the kind of cells involved including serous membrane, mucins, Endometrial, bright and Brenner and are compatible to different kinds of ovarian epithelial cells in female reproductive system.

METHODS:

In this review article, the databases Medline, Cochrane, Science Direct, and Google Scholar were thoroughly searched to identify the Ovarian Adenocarcinoma. In this review, the papers published until early January 2017 that were conducted to study the Ovarian Adenocarcinoma were selected.

FINDINGS:

The ovary is in the form of two small glands on both sides of uterus that is covered by the end of ovarian tube (7). Ovarian epithelial cancers are the most common cancers that remain asymptomatic until metastasis; they have the highest rate of mortality among all kinds of malignancies of female reproductive system. This cancer is the sixth most important female cancer in western countries (8). Ovarian cancer is also ranked the fifth cancer mortality cause in the United States and it is a really fatal cancer. Various genes are involved in

the emergence and formation of this cancer (9). Various studies have confirmed the mutation in KRAS, BRAF, and P53. Moreover, individuals heterozygous BRCA1 and BRCA2 are susceptible to this cancer. Furthermore, minimal RNA changes that control gene expression can be seen in this cancer (10). Changes in the pattern of methylation in the promoter region of genes are also other complications of ovarian cancer; methylation occurs especially in the promoter region of genes suppressing tumor and makes the genes silent (11). This event can be applied as an indicator for early diagnosis. The treatment methods of this cancer are various including surgery with chemotherapy, antiangiogenesis drugs, hormone therapy, and newer methods such as gene therapy.

DISCUSSION AND CONCLUSION:

The incidence of different kinds of ovarian cancer are included among the cases that have not been given due attention so far (12). However, they have turned out to be challenging issues. Ovary adenocarcinoma cervicitis constitutes 4.2% of ovarian cancer. An epithelial ovarian cancer is the disease of older women and women of post-menopause ages (13). In tumors limited to ovary, most patients are asymptomatic. However, most ovarian cancer patients referred to the doctor at advanced disease stages and only 3% of ovarian cancer cases are diagnosed for operations and abdominal and pelvic examinations (14). The standard treatment of ovarian cancer is cytoreductive surgery and removing cancer tissues as much as possible with auxiliary chemotherapy (15). Ovarian tumor dissemination is conducted through lymph channels and then blood vessels. In 2-3% of ovarian cancer cases, the distant dissemination of the disease can be seen mainly in lungs and liver. The factors behind this distant dissemination of ovarian cancer include the severity and extent of the lesion, involvement of lymph nodes, and peritoneal carcinomatosis (16). In the end it can be concluded that despite the scarcity of malignant cancers among menopausal women, malignancy diagnosis needs to be considered for all the patients; if the diagnosis is delayed, the prognosis will be very bad and the treatment will face many difficulties.

REFERENCES:

1. Logani S, Oliva E, Arnell PM, Amin MB, Young RH. Use of novel immunohistochemical markers expressed in colonic adenocarcinoma to distinguish primary ovarian tumors from metastatic colorectal carcinoma. *Modern pathology*. 2005 Jan 1;18(1):19.
2. Devalapally H, Duan Z, Seiden MV, Amiji MM. Modulation of drug resistance in ovarian adenocarcinoma by enhancing intracellular ceramide using tamoxifen-loaded biodegradable

- polymeric nanoparticles. *Clinical Cancer Research*. 2008 May 15;14(10):3193-203.
- 3.Partheen K, Levan K, Österberg L, Horvath G. Expression analysis of stage III serous ovarian adenocarcinoma distinguishes a sub-group of survivors. *European journal of cancer*. 2006 Nov 30;42(16):2846-54.
- 4.Takahashi Y, Koyanagi T, Suzuki Y, Saga Y, Kanomata N, Moriya T, Suzuki M, Sato Y. Vasohibin-2 expressed in human serous ovarian adenocarcinoma accelerates tumor growth by promoting angiogenesis. *Molecular Cancer Research*. 2012 Sep 1;10(9):1135-46.
- 5.Solár P, Sytkowski AJ. Differentially expressed genes associated with cisplatin resistance in human ovarian adenocarcinoma cell line A2780. *Cancer letters*. 2011 Oct 1;309(1):11-8.
- 6.Linnerth NM, Greenaway JB, Petrik JJ, Moorehead RA. cAMP response element-binding protein is expressed at high levels in human ovarian adenocarcinoma and regulates ovarian tumor cell proliferation. *International Journal of Gynecological Cancer*. 2008 Nov 1;18(6):1248-57.
- 7.Jung HJ, Lee HY, Kim BW, Jung SM, Kim HG, Ji JS, Choi H, Lee BI. Gastric metastasis from ovarian adenocarcinoma presenting as a submucosal tumor without ulceration. *Gut and liver*. 2009 Sep;3(3):211.
- 8.Turunen M, Talvensaaari-Mattila A, Soini Y, Santala M. Claudin-5 overexpression correlates with aggressive behavior in serous ovarian adenocarcinoma. *Anticancer research*. 2009 Dec 1;29(12):5185-9.
- 9.Watanabe Y, Tsuchiya H, Sakabe T, Matsuoka S, Akechi Y, Fujimoto Y, Yamane K, Ikeda R, Nishio R, Terabayashi K, Ishii K. CD437 induces apoptosis in ovarian adenocarcinoma cells via ER stress signaling. *Biochemical and biophysical research communications*. 2008 Feb 15;366(3):840-7.
- 10.Hori Y, Uechi M, Kanakubo K, Sano T, Oyamada T. Canine ovarian serous papillary adenocarcinoma with neoplastic hypercalcemia. *Journal of veterinary medical science*. 2006;68(9):979-82.
- 11.Behzadmehr R, Keikhaie KR, Pour NS. The Study of Pregnant Women's Attitude toward Using Ultrasound in Pregnancy and its Diagnostic Value based on the Demographic Features in Amir-al-Momenin Hospital of Zabol. *Int J Adv Res Biol Sci*. 2017;4(6):58-63.
- 12.Kahkhaie KR, Keikhaie KR, Vahed AS, Shirazi M, Amjadi N. Randomized comparison of nylon versus absorbing polyglactin 910 for fascial closure in caesarean section. *Iranian Red Crescent Medical Journal*. 2014 Apr;16(4).
- 13.Kahkhaie KR, Keikha F, Keikhaie KR, Abdollahimohammad A, Salehin S. Perinatal Outcome After Diagnosis of Oligohydramnios at Term. *Iranian Red Crescent Medical Journal*. 2014 May;16(5).
- 14.Shahraki Z, Keikhaie KR, Amjadi N, Bonjar ZH, Jahantigh H, Doosti F, Shirazi M. Correlation of 4 Hour Urine Samples with 24-Hour Urine Samples for the Diagnosis of Preeclampsia. *Journal of Obstetrics, Gynecology and Cancer Research*. 2017(In Press).
- 15.Shirazi M, Hantoush-Zadeh S, Rezaie-Keikhaie K, Pirjani R. Spontaneous Uterine Rupture and Live Fetus in 21th Week of Pregnancy with Hemorrhagic Shock Due to Placenta Percreta: A Case Report. *Case Reports in Clinical Practice*. 2016 Jan 20;1(1):19-21.
- 16.Keikhaie KR, Kahkhaie KR, Mohammadi N, Amjadi N, Forg AA, Ramazani AA. Relationship between Ultrasonic Marker of Fetal Lung Maturity and Lamellar Body Count. *Journal of the National Medical Association*. 2017 May 11.