

Preface

Ovarian cancer is a cancerous tumor of an ovary. It may originate from the ovary itself or more commonly from communicating nearby structures such as fallopian tubes or the inner lining of the abdomen. The ovary is made up of three different cell types including epithelial cells, germ cells, and stromal cells. When these cells become abnormal, they have the ability to divide and form tumors. These cells can also invade or spread to other parts of the body. When this process begins, there may be no or only vague symptoms. Symptoms become more noticeable as the cancer progresses. These symptoms may include bloating, vaginal bleeding, pelvic pain, abdominal swelling, constipation, and loss of appetite, among others. Common areas to which the cancer may spread include the lining of the abdomen, lymph nodes, lungs, and liver.

The risk of ovarian cancer increases with age. Most cases of ovarian cancer develop after menopause. It is also more common in women who have ovulated more over their lifetime. This includes those who have never had children, those who began ovulation at a younger age and those who reach menopause at an older age. Other risk factors include hormone therapy after menopause, fertility medication, and obesity. Factors that decrease risk include hormonal birth control, tubal ligation, pregnancy, and breast feeding. About 10% of cases are related to inherited genetic risk; women with mutations in the genes *BRCA1* or *BRCA2* have about a 50% chance of developing the disease. Some family cancer syndromes such as hereditary nonpolyposis colon cancer and Peutz-Jeghers syndrome also increase the risk of developing ovarian cancer. Epithelial ovarian carcinoma is the most common type of ovarian cancer, comprising more than 95% of cases. There are five main subtypes of ovarian carcinoma, of which high-grade serous carcinoma (HGSC) is the most common. Less common types of ovarian cancer include germ cell tumors and sex cord stromal tumors. A diagnosis of ovarian cancer is confirmed through a biopsy of tissue, usually removed during surgery. ⁱ

In the present book, fifteen typical literatures about the ovarian cancer published on international authoritative journals were selected to introduce the worldwide newest progress, which contains reviews or original researches on the ovarian cancer. We hope this book can demonstrate advances in the ovarian cancer as well as give references to the researchers, students and other related people.

ⁱ https://en.wikipedia.org/wiki/Ovarian_cancer