The Role of Intraperitoneal Chemotherapy in Treatment of Primary& Recurrent Epithelial Ovarian Carcinoma

THESIS

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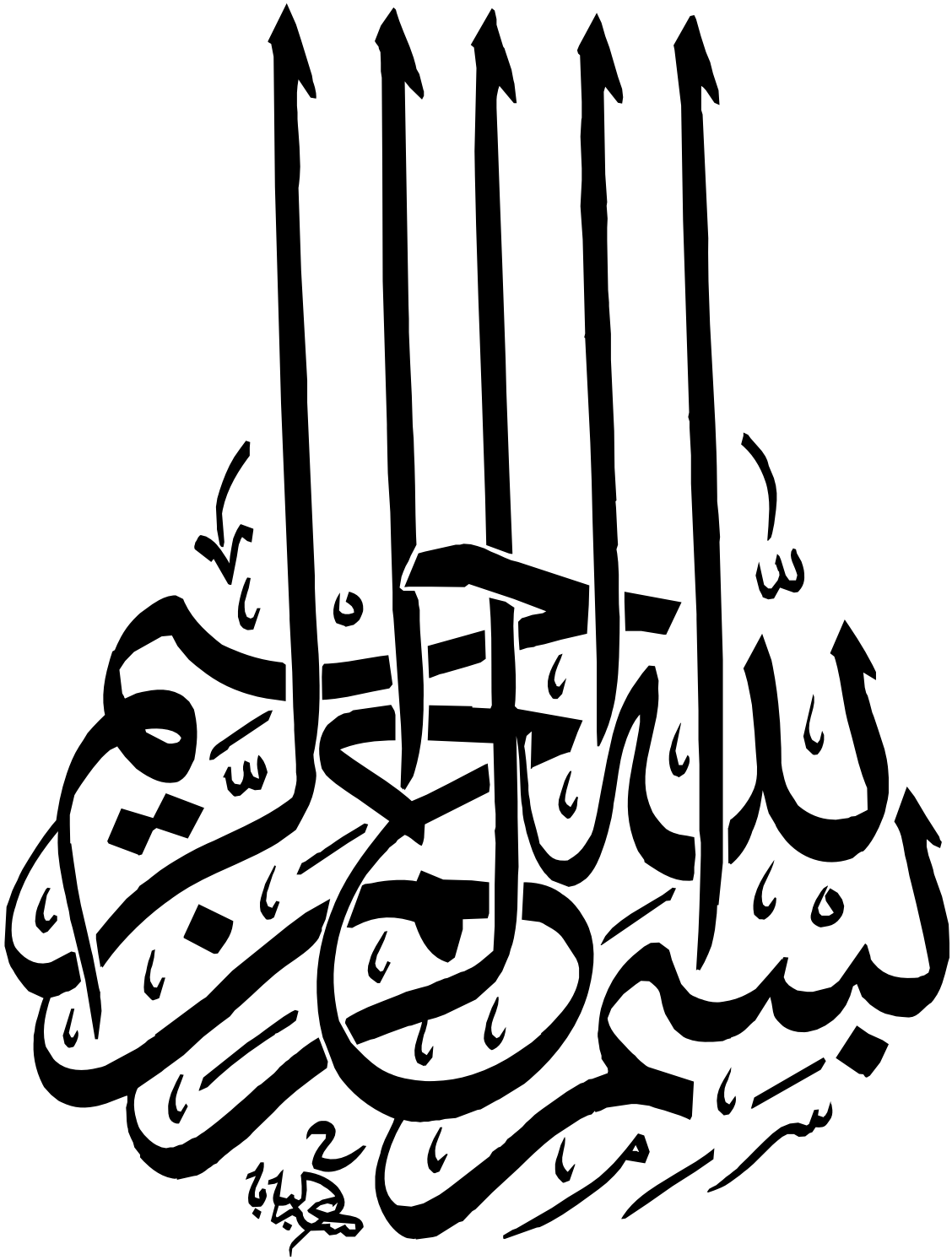
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بناء على موافقة الجامعة بتاريخ ٢٣ / ١١ / ٢٠٠٩ تم تشكيل لجنة الفحص والمناقشة
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Abstract

A combination of IV and IP administration of chemotherapy conveys a significant survival benefit among women with optimally debulked epithelial ovarian cancer, compared to IV administration alone. The three largest studies with the greatest survival advantage delivered cisplatin 100 mg/m^2 IP. , the chemotherapy regimens mandated modification based on patient tolerance.

The benefit appears to be approximately a 12-month improvement in median overall survival. It may also be associated with a significantly increased short-term risk of toxicity compared with IV chemotherapy; however, the toxicity is short-term and manageable.

Key words:

The combination of IV and IP- survival benefit- debulked epithelial ovarian cancer-12-month improvement in median overall survival-toxicity

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Contents

Table of Contents

List of tables

List of figures

lIST OF ABBREVIATIONS

AUC	**Area under the curve**
IP	**Intraperitoneal**
GFR	Glomular filteration rate
HIIC	Hyperthermic intraoperative intraperitoneal chemotherapy
HRQOL	Health-related Quality of Life
GOG	Gynecology oncology group
FACT-O	Functional Assessment of Cancer Therapy-Ovarian
FIGO staging system	International Federation of Gynecology and Obstetrics staging system

Introduction&Aim of work

Introduction

Epithelial ovarian carcinoma is the leading cause of death from gynecologic malignancies in the developed world.
In 2005, it has been estimated that in the United States, 22,220 women will be diagnosed with ovarian cancer, and 16,210 women died from the disease (**Jemal et al., 2005).**
To date, no effective screening regimen for ovarian cancer has been identified. More than half of women with ovarian cancer present with advanced-stage disease (FIGO III/IV) at the time of diagnosis **(van Nagell et al., 1990).**

Epithelial ovarian cancer appears to arise from the epithelial surface of the ovary. Spread of the disease is often by local extension, by intra-abdominal dissemination to other sites within the peritoneal cavity, and by lymphatic spread to pelvic and para-aortic nodes in the retroperitoneum.

The recommended treatment includes primary surgery for diagnosis, staging, and cytoreduction, followed by chemotherapy (**Bolis et al., 1995).**
Unlike many other solid tumors, effective cytoreduction ("debulking") conveys a survival benefit among women with ovarian carcinoma **(Michel et al., 1997).**

The goal of primary surgery is to reduce the burden of ovarian cancer to no or minimal residual disease.
The recommended initial chemotherapy is generally a platinum-and-taxane combination given by intravenous infusion every 3 weeks for 6-8 cycles (**Albert et al., 1996).**

For early ovarian cancer, appropriate surgical staging and adjuvant chemotherapy for selected cases will result in survival rates of 90–95%. For advanced ovarian cancer, survival

depends primarily on the success of the initial surgical procedure. Patients with complete cytoreduction to microscopic disease are often cured with adjuvant chemotherapy. **(Eisenkop and Spirato. 2001)**
As residual ovarian cancer after surgery and first recurrences are primarily confined to the abdomen, intraperitoneal (IP) administration of chemotherapy was first proposed several decades ago**.**Certain chemotherapeutic agents, including cisplatin and, more recently, paclitaxel, were found to have distinct pharmacokinetic advantages when given via an intraperitoneal rout .These include high intraperitoneal concentration of drug, as well as a longer half-life of the drugs in the peritoneal cavity with lower systemic toxic effect compared to that observed with intravenous (IV) administration, for cisplatin there was a 10-20-fold greater exposure in the peritoneal cavity over what is achieved with the IV route **(Markman et al.,2001)**

There is growing evidence that patients with microscopic residual disease are excellent candidates for intraperitoneal chemotherapy, and this mode of chemotherapy delivery may be their best opportunity for cure**. (Albert et al., 1996)**

Patients with optimal cytoreduction also may benefit from intraperitoneal chemotherapy, but cure is less likely.
For patients with suboptimal cytoreduction, intravenous chemotherapy with a combination of carboplatin and paclitaxel is the current standard therapy (***Yen et al., 2001)***

Intraperitoneal chemotherapy in combination with traditional surgery and chemotherapy, may result in further improvement in survival for patients with epithelial ovarian cancer

The Aim of the study

The aim of this study is to review the present status of IP chemotherapy in various stages of epithelial ovarian cancer and its cost effectiveness.

Chapter 1

Chapter 1

CLINICAL PROFILE&TREATMENT OF EPITHELIAL OVARIAN CANCER