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CYTOREDUCTIVE SURGERY AND HYPERTHERMIC INTRAPERITONEAL CHEMOTHERAPY IN PATIENTS WITH ADVANCED OVARIAN CANCER 2 YEAR SURVIVAL ANALYSIS

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Introduction/Background More than 80% of patients with advanced ovarian cancer present with recurrence within five years. During the last decades, Cytoreductive Surgery plus Hyperthermic Intraperitoneal Chemotherapy has been introduced as a new protocol for treatment of advanced and or recurrent ovarian cancer. However, there is no consensus on its long-term efficiency, and is still under debate. This study aims to evaluate the effectiveness of Cytoreductive Surgery Plus Hyperthermic Intraperitoneal Chemotherapy in patients with Advanced Ovarian Cancer in Iran.

Methodology Thirty patients with Stage IIIc and IV advanced Ovarian Cancer underwent cytoreductive surgery plus Hyperthermic Intraperitoneal Chemotherapy at Jam hospital with a fixed surgical team in Tehran, Iran, from 2019 to 2021. Fourteen patients were new cases, and sixteen of them were recurrent cases. At the end of cytoreductive surgery, by using a Hyperthermic Intraperitoneal Chemotherapy device, Cisplatin was circulated in the peritoneal cavity for 90 minutes at a dose of 80–100 mg/m² at 43 ° C di;}

Results Among thirty patients with 54.97±10.74 years of mean age, the mean overall survival was 564.967 days, and 2-year survival rates were 66.7%. According to Fisher's exact test, there was a statistically significant relationship between disease-free after surgery and mortality rate (p=0.00). However, there was no statistically significant relationship between recurrence after surgery and mortality rate (p=0.093).

Conclusion Cytoreductive surgery plus Hyperthermic Intraperitoneal Chemotherapy might increase the survival of Advanced Ovarian Cancer patients.

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IMMATURE TERATOMA OF THE OVARY DIAGNOSED AFTER NORMAL DELIVERY: A CASE REPORT

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Introduction/Background Immature teratoma is also known as malignant teratoma or teratoblastoma or Embryonal teratoma and includes less than 1% of all teratomas and one third of malignant teratomas. The tumor is uncommon during pregnancy. The aim of this report is to introduce a case of immature teratoma of the ovary diagnosed after normal delivery.

Methodology The patient was a 26 years old woman who had undergone surgery two years ago due to bilateral ovarian cyst and abdominal pain, and the pathology reported the mature cystic teratoma. The patient again referred due to enlarged abdomen following normal delivery. Laparotomy was performed due to large ovarian mass, and salpingo-

oophorectomy was performed with report of immature teratoma in frozen section. After the surgery, the patient received four courses of BEP-regimen chemotherapy. Now, the patient is followed-up and tumor markers, sonography and examination of the patient are normal.

Results Given the rare nature of the disease and the importance of early diagnosis of malignant ovarian masses in order to increase the patients' survival rate, it is necessary to pay more attention to the adnexa in ultrasonography and clinical examinations of pregnant women.

Conclusion Given the rare nature of the disease and the importance of early diagnosis of malignant ovarian masses in order to increase the patients' survival rate, it is necessary to pay more attention to the adnexa in ultrasonography and clinical examinations of pregnant women.

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IS TRANSVAGINAL CORE NEEDLE BIOPSY A SAFE METHOD IN DIAGNOSIS OF OVARIAN CANCER?

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Introduction/Background The optimal management of highly invasive ovarian cancer has changed from adjuvant chemotherapy after surgery to neoadjuvant chemotherapy followed by interval debulking surgery. Generally, tissue specimen for definitive diagnosis of ovarian malignancy is necessary. However, abdominal wall metastasis is a complication, known as transabdominal ascites aspiration or percutaneous core needle biopsy. When neoadjuvant chemotherapy is indicated, transvaginal core needle biopsy under sonographic guidance provided enough tissue specimens. In addition, resection of most of upper vaginal wall during surgery prevents needle site metastasis. The aim of this study is to evaluate transvaginal core needle biopsy as a safe method for diagnosis of ovarian cancer.

Methodology This clinical trial study was performed on patients who were candidate for neoadjuvant chemotherapy and were referred to gynecology oncology department of Ghaem Hospital, Mashhad University of Medical Sciences during 2014 to 2015.

Results Twelve women with a presumptive diagnosis of stage III c or IV ovarian cancer were selected. Adequate sample was obtained by transvaginal core needle biopsy, and cancer diagnosis was confirmed in all cases. This procedure resulted in optimal debulking surgery in 2/3 of cases.

Conclusion Transvaginal core needle biopsy is a safe diagnostic method of ovarian cancer. © 2017, Cancer Research Center (CRC), Shahid Beheshti University of Medical Sciences.

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PRIMARY OVARIAN NON-HODGKIN'S LYMPHOMA: A CASE REPORT

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Introduction/Background Non-Hodgkin's lymphoma in the genital system is uncommon and ovary is one of the most common sites of involvement. Ovarian involvement in non-hodgkin's lymphoma is often secondary and is a part of the

systemic involvement. Primary and localized ovarian involvement is uncommon and occurs in less than 10% of cases. In this study, a rare case of primary ovarian non-Hodgkin's lymphoma is presented.

Methodology The patient was a 64-year-old woman with a history of hysterectomy and postmenopausal bleeding that referred to the academic hospital of Mashhad University of Medical Sciences. On ultrasound and CT scans, solid cystic foci were found between the bladder and rectum, consistent with the location of the cervix and uterus. Subsequent evaluations confirmed histological and immunohistochemical diagnosis of ovarian non-Hodgkin's lymphoma.

Results Ovarian lymphoma is one of the differential diagnoses that should be considered in the pelvic masses.

Conclusion Ovarian lymphoma is one of the differential diagnoses that should be considered in the pelvic masses.

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PROTEOMIC ANALYSIS OF EXOSOMES SECRETED DURING MESENCHYMAL-EPIHELIAL TRANSITION FOR POTENTIAL DIAGNOSIS OF MESENCHYMAL SUBTYPE OF HIGH GRADE OVARIAN SEROUS CARCINOMA

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Introduction/Background The epithelial-mesenchymal transition (EMT) promotes alterations in cell signaling and morphology, favoring metastatic progression. Exosomes are extracellular vesicles, produced by cells under variable conditions, containing proteins involved in cell-cell communication. Our aim was to evaluate the proteome of exosomes secreted after EMT induction to identify potential biomarkers for ovarian cancer classification.

Methodology EMT was induced in the ovarian cancer cell line CAOV3 using 10 ng/mL EGF for 96 h after 24 h of serum deprivation. Exosomes were isolated from the supernatant using the exoEasyMaxi kit (Qiagen) after decellularization and then characterized. The exosome proteins were extracted, identified, and quantified by Label-Free-Quantification (LFQ) using LC-MS/MS. The proteomic data and mRNA expression TCGA database were integrated to identify potential biomarkers using principal component analysis (PCA) and classification and regression tree (CART).

Results The CAOV3-exosomes obtained during EMT had ~ 150 nm in diameter and morphology similar to exosomes from nonstimulated CAOV3. The proteomic analysis highlighted 157 proteins differentially detected between EMT induced and nonstimulated CAOV3, 100 up and 57 down accumulated. Integrative analysis of up accumulated proteins with TCGA transcriptomic signature identified PLAU, LAMB1, COL6A1, and TGFBI as potential biomarkers of mesenchymal HGSOc subtype.

Conclusion The combination of EMT induction, exosome isolation, and large-scale proteomic analysis identified potential

biomarkers of ovarian cancer aggressiveness. Our data warrant further investigation of the role of PLAU, LAMB1, COL6A1, and TGFBI in ovarian cancer outcomes.

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TREATMENT AND OUTCOME OF PATIENTS WITH HIGH-GRADE ADVANCED OVARIAN CANCER (AOC) – REAL WORLD DATA OF THE GERMAN QUALITY ASSURANCE PROJECT (QS OVAR OF THE AGO STUDY GROUP)

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Introduction/Background Outcome of patients with AOC depends largely on treatment quality and expertise of treating physicians and centers. To assess treatment reality and quality in Germany, we initiated a nationwide quality assurance program.

Methodology All German hospitals treating patients with AOC were asked to document their patients with primary diagnosis in the third quarters of 2012 and 2016 in a central database. The current analysis focuses on patients with high-grade AOC stage III/IV.

Results In total, 1010 patients with high-grade AOC were documented. This represents 63% of all patients diagnosed in Germany. Median age was 65 years. The majority (774/1010 – 76.6%) were diagnosed with stage III disease and 947/1010 (93.8%) had serous, 34 (3.4%) endometrioid and 29 (2.9%) clear cell histology. 915/1010 (90.6%) had primary debulking surgery (PDS). Complete resection was achieved in 434/915 (47.4%) at PDS and in 54/95 (56.8%) at interval debulking surgery (IDS). Median PFS and OS in patients with PDS and complete resection was 29.7 and 63.1 months compared to 16.8 and 30.7 months in patients with residual disease (PFS: HR 0.46, 95% CI 0.37–0.54 and OS: HR 0.37, 95% CI 0.31–0.45). First-line chemotherapy was carboplatin/paclitaxel (TC) in 919/1010 (91%) of the patients, 627 (62%) also received bevacizumab (TCB) and 544 of these (87%) also received bevacizumab maintenance therapy. Median PFS and OS with TCB was 23.3 and 46.2 months and 18.5 and 39.0 months with TC (PFS: HR 0.86, 95% CI 0.73–1.01 and OS: HR 0.79, 95% CI 0.66–0.95).

The rate of complete tumor resection at surgery as well as the use of bevacizumab increased between the two periods.

Conclusion The majority of patients were treated with primary surgery followed by TCB. Outcome was best when complete tumor resection was achieved at primary surgery and patients received combination chemotherapy with maintenance treatment.