

test. Bivariate analysis between characteristics and hCG level tested with chi-square.

**Results** Twelve cases were analyzed, consisted of choriocarcinoma (7/12), Placental Site Trophoblastic Tumor (2/12), invasive mole (2/12), and hydatidiform mole (1/12). The average patient's age was 37 years old. The highest pre-operative hCG level was 378.909 mIU/mL. The highest post-operative beta hCG level was 136.710 mIU/mL. The Average decrease of serum beta HCG was 72.317,34 mIU/mL. Post-operative hCG levels were found to be normal (<5 mIU/mL) only in four cases (33.33%). There was significant difference of hCG level between pre and post hysterectomy ( $p=0,002$ ) with strong correlation ( $r=0,773$ ). Clinical characteristic that correlated with normal Beta hCG level after hysterectomy was WHO score ( $p=0,007$ ). Age, parity, history of miscarriage, last child age, histopathology type, and surgery type were not correlated with normal hCG level after hysterectomy.

**Conclusion** Hysterectomy was a procedure that can effectively decrease serum Beta HCG level in GTN patients. WHO risk score also correlated with the post-hysterectomy level of serum Beta HCG.

#### 2022-RA-1339-ESGO TREATMENT OUTCOME OF GESTATIONAL TROPHOBLASTIC DISEASE AT SINGLE CENTER OF SAUDI ARABIA

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**Introduction/Background** Gestational trophoblastic disease (GTD) constitutes rare group of benign and malignant neoplasia with high cure rates. This study is aimed to evaluate the treatment outcomes in our population

**Methodology** Retrospective analysis of patients treated with chemotherapy for GTD at King Fahad specialist Hospital Dammam from January 2016 till May 2022. Clinical data were collected from patients electronic files

**Results** A total of 24 patients with GTD received chemotherapy. Median age was 32 (18–51) years. According to FIGO scoring system, most patients were low-risk ( $n=21$ , 87.5%). All patients had histological diagnosis with most common type as complete mole in 13 (54%) patients followed by partial mole ( $n=7$ , 29%), choriocarcinoma ( $n=3$ , 13%) and epithelioid trophoblastic tumour ( $n=1$ , 4%). Median serum BHCG before starting chemotherapy was 54000 (133–949117)mIU/ml. Intramuscular Methotrexate (IM-MTX) was used as a first-line chemotherapy in 20 patients with low-risk disease. It was administered in either weekly ( $n=9$ , 45%) or 14 days regimen ( $n=11$ , 55%). One patient received actinomycin because of contra-indication to MTX. All ( $n=3$ ) of the high-risk patients were treated with EMA-CO chemotherapy. Median duration of chemotherapy resulting in normalization of BHCG was 4 (1–16) weeks. Ten (42%) patients had a resistance to IM-MTX and were treated with Actinomycin ( $n=5$ ) or EMA-CO ( $n=5$ ) chemotherapy. Median duration for normalization of serum BHCG with second line chemotherapy was 16 (4–22) weeks. Four of 5 patients treated with actinomycin in second line

needed EMA-CO chemotherapy as a third line because of the lack of response. All of patients had a complete response to chemotherapy.

**Conclusion** GTD is a disease of young women. Most were diagnosed with low risk disease and complete mole. Most patients achieved complete response with first line chemotherapy. IM-MTX resistance was noted in 42% patients but achieved a complete response with second- or third-line chemotherapy.

#### 2022-RA-1371-ESGO MULTIPLE-AGENT CHEMOTHERAPY AS FIRST-LINE TREATMENT FOR LOW RISK GESTATIONAL NEOPLASM: IS IT TIME OR NOT?

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**Introduction/Background** Gestational trophoblastic neoplasm (GTN) which is categorized as low-risk and high-risk, is a rare disease by itself. Most low-risk GTN patients are treated with single-agent chemotherapy; however, the multi-agent protocol is the first choice of treatment for high-risk GTN patients. This study aimed to assess the causes of resistance in low-risk GTN patients undergoing single-agent chemotherapy.

**Methodology** In this case-control study, we evaluated 207 low-risk GTN patients who were diagnosed and treated at the Oncology Department of referral hospitals in Tehran, Iran between 2011 and 2017. Patients with FIGO stage I were considered as low-risk and standard pulse methotrexate (MTX) or pulse actinomycin-D was started for them. In cases of resistance to first-line single-agent chemotherapy, second-line single-agent and if still resistant, multi-agent chemotherapy with EMA-CO (etoposide, methotrexate, actinomycin D, cyclophosphamide, oncovin) was used. Data were analyzed by SPSS version 22

**Results** Among all patients, 152 (73.4%) responded to single-agent chemotherapy, 24 (11.6%) responded to second-line chemotherapy and 31 (15%) required multi-agent chemotherapy. Four cases underwent emergent hysterectomy due to uterine rupture which have been excluded. Significant difference in mean tumor size and FIGO score was found among the three groups of first-line single-agent, second-line single-agent and multi-agent responders; however, response to treatment was not correlated with many factors such as level of B-HCG (B-Human Chorionic Gonadotropin) and duration of treatment. Univariate analyses showed that many clinical features such as tumor size ( $P<0.001$ ) and B-HCG  $>40,000$  accompanied by tumor size  $\geq 5$  cm ( $P=0.005$ ) were significantly correlated with the risk of resistance to single-agent chemotherapy.

**Conclusion** Although more research is needed to suggest multi-agent chemotherapy administration from the beginning for low risk GTN patients at risk for chemotherapy resistance, factors such as tumor size  $>5$  cm accompanied with B-HCG  $>40000$  and FIGO score  $\geq 4$  can alarm the clinician to better predict possibility of chemotherapy resistance and keep an eye on the patients until normal B-HCG levels are achieved.