Tailoring Treatment of Gestational Trophoblastic Diseases: Age Considerations



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Introduction.

Gestational trophoblastic diseases are group of proliferative disorders originate from trophoblast and commonly occur during the childbearing period. However, at extremes of maternal age; some maternal chromosomal aberration occurs that may increase possibility to develop molar pregnancy [2]. It was reported that risk for complete mole is nearly twice for women younger than 21 years and older than 35 years, and 7.5 times higher for women over 40 years when compared to the risk for the 21–35 years age group. This suggests increased risk of abnormal gametogenesis and fertilization of the ovum produced at extremes of reproductive age.

Moreover, Gockley et al investigated the incidence rates of complete mole (CM) and partial mole (PM) using databases from Brigham and Women's Hospital, USA, between 2000 and 2013. Age-specific rates were calculated for women younger than 20 years old (adolescents), 20-39 years old (average age), and 40 years and older (advanced maternal age). The authors found that adolescence and advanced maternal age were associated with increased risk of complete mole, but not partial mole. During the last 5 years registry data of Mansoura GTD clinic, Egypt; 74 of 601 cases (12.3%) were aged 40 years or more (unpublished data).

Objectives.

To review the evidence-based considerations in management of GTD based on the age of the patients in the published literature.

Methods.

Collected data through literature review in "PubMed" with search titles: "management of GTD AND young age", "GTD AND old age", and "GTD AND age considerations" during the period from the year 2000 till 2026.

Key words: GTD; young age; old age; management.

Results.

Risk for complete mole is nearly twice for women younger than 21 years and older than 35 years, and 7.5 times higher for women over 40 years when compared to the risk for the 21–35 years age group. This suggests increased risk of abnormal gametogenesis and fertilization of the ovum produced at extremes of reproductive age. It was reported that the rate of progression of molar pregnancy to gestational trophoblastic neoplasia (GTN) is higher with advanced maternal age. Women older than 40 years had a probability of 23-37% of developing post-molar GTN after suction evacuation. Increased to 31-56% in women older than 50 years old. The increased risk of GTN progression should be discussed with patients during tailoring the treatment plan. On the other hand, adolescent age appears to have a significantly decreased risk of developing GTN.

Conclusion.

The management of GTD may be tailored according to age of the patients. A prophylactic single dose of methotrexate or actinomycin-D can be considered for patients at high risk for post-molar GTN at age of 40 or older. Hysterectomy is an option during treatment of LR-GTN for patients who have fulfilled their child wish. For young ladies with GTN; fertility preservation is crucial. Strategies to protect the ovaries prior to EMA/CO and other combination of chemotherapy is use of GnRH agonists and embryo/oocyte cryopreservation.

References.

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