ANTI-MULLERIAN HORMONE AS A PREDICTIVE MARKER OF OVARIAN RESERVE IN CANCER PATIENT

Muna, Naylah¹; Mutia, Kresna¹; Febri, Ririn Rahmala¹; Silvia, Melisa¹; Harzif, Achmad Kemal¹,²; Wiweko, Budi¹,²; Maidarti, Mila¹,²; Oki, Riayati¹

¹Indonesia Reproductive Medicine Research and Training Center (INA-REPROMED), Jakarta, Indonesia, ²Department of Obstetrics and Gynecology, Dr. Cipto Mangunkusumo National General Hospital, Jakarta, Indonesia

Abstract Body

Background

Fertility Preservation is one of the most important things must be considered in the management of cancer patients, particularly patients of reproductive age. Most patients post chemotherapy or radiation can suffer from premature ovarian failure and diminished ovarian reserve, causing infertility. The best biochemical examination in assessing ovarian reserve is by measuring the levels of AMH (Anti-Mullerian Hormone) in the blood. In cancer patients of reproductive age, ovarian reserve examination is used to determine the number of oocytes patients before and after undergoing chemotherapy or radiotherapy. This is useful for determining the type, dose and duration of cancer therapy will be provided as well as preservation efforts related to reproductive function.

Aim

This study was conducted to determine ovarian reserve of cancer patients as a consideration for predicting ovarian reserve.

Method

This study was done at Dr. Cipto Mangunkusumo National General Hospital and National Cancer Centre Dharmais Hospital. 23 blood samples were collected from cancer patient in reproductive age before therapy. The AMH serum level were measured using ELISA method. Calculated AMH levels then used to predict ovarian reserve of the patients using IKO (Indonesian Kalcuator of Oocytes).

Result & Discussion

Twenty of twenty three samples resulted lower ovarian reserve than the patients conditional age. Meanwhile, three samples showed similar biological age and conditional age, meant the patients still have sufficient ovarian reserve. The average of calculated AMH were 1,77 (with range 11,187-0,05). That result gave a far-off gap with predictive AMH levels (average 4,34). However, more than half of the samples are still have under 40 biological age, which are still able to preserve reproduction ablity.

Conclusion

Patients suffering cancer have lower ovarian reserve than they necessarily have. However, larger number of samples are needed to get more comprehend result with lower error percentage.

Keyword(s): AMH, Cancer, Ovarian Reserve.