INTISARI

Latar Belakang Kanker ovarium merupakan kanker paling umum ke-7 dan penyebab kematian akibat kanker ke-8 pada wanita di dunia. Penggolongan kanker ovarium salah satunya dapat menggunakan *grade* yang dapat dibedakan menjadi *low grade* dan *high grade*. Asites merupakan manifestasi klinis yang sering dijumpai pada pasien karsinoma ovarium dan mengandung sitokin salah satunya IFN-γ. IFN-γ awalnya memiliki aktivitas anti-tumor yang kuat, namun belakangan ini ditemukan juga efek IFN-γ sebagai agen pro-tumor. Penelitian tentang kadar IFN-γ pada asites dan darah serta hubungannya dengan *grade* belum banyak dilakukan.

Tujuan Penelitian: Untuk mengetahui hubungan kadar interferon gamma (IFN-γ) dengan *grade* karsinoma ovarium pada cairan asites dan darah dan untuk mengetahui tingkat kadar interferon gamma (IFN-γ) pada cairan asites dan darah pasien karsinoma ovarium.

Metode Penelitian: Sampel penelitian berupa asites dan darah dikumpulkan dari pasien penderita karsinoma ovarium yang dilakukan operasi di RSUP Dr. Sardjito. Kadar IFN-γ pada sampel diukur menggunakan *Human IFN-γ (Interferon gamma) ELISA kit* yang selanjutnya dianalisis. Uji statistik dilakukan untuk mengetahui perbedaan rata-rata kadar IFN-γ cairan asites dan darah dengan *grade* karsinoma ovarium.

Hasil Penelitian: Pada sampel asites rata-rata pada *low grade* sebesar 0,57 pg/ml, sedangkan pada *high grade* sebesar 0,68 pg/ml, pada sampel darah rata-rata pada *low grade* sebesar 0,74 pg/ml, sedangkan pada *high grade* sebesar 0,84 pg/ml. Namun perbedaan rata-rata tersebut tidak signifikan (asites, p=0,780; darah, p=0,861). Pada cairan asites dan darah, rata-rata pada asites sebesar 0,66 pg/ml sedangkan pada darah 0,81 pg/ml, namun perbedaan rata-rata tersebut tidak signifikan (p=0,568).

Kesimpulan: Tidak terdapat perbedaan rata-rata yang signifikan antara kadar interferon-gamma (IFN- γ) cairan asites dan darah pada karsinoma ovarium *low grade* dan *high grade*, sehingga hubungan kadar IFN-γ terhadap *grading* tidak dapat dibuktikan. Tidak terdapat perbedaan rata-rata yang signifikan antara kadar interferon-gamma (IFN- γ) pada cairan asites dan darah karsinoma ovarium.

Kata Kunci: interferon gamma (IFN-γ), karsinoma ovarium, *grade*, asites

ABSTRACT

Background: Ovarian cancer is the 7th most common cancer and the 8th cause of cancer in women in the world. Ovarian cancer classification is one of them can use grades that can be divided into low grade and high grade. Ascites is a clinical manifestation that is often found in ovarian carcinoma patients and contains one of the cytokines IFN-γ. IFN-γ initially had strong anti-tumor activity, but recently the effects of IFN-γ as a pro-tumor agent have also been found. Research on IFN-γ levels in ascites and blood and its relationship with grade has not been widely performed.

Objective: To determine the relationship of expression of interferon gamma (IFN-γ) with ovarian carcinoma grading in ascites and blood and to determine the expression level of interferon gamma (IFN-γ) in ascitic fluid and blood of ovarian carcinoma patients.

Research Methods: The study sample was ascites and blood collected from patients with ovarian carcinoma who performed surgery at Dr. RSUP Sardjito. The levels of IFN-γ in the samples were measured using the Human IFN-γ (Interferon gamma) ELISA kit which was subsequently analyzed. Statistical tests were performed to determine differences in the average levels of IFN-ites ascites and blood fluids with grade ovarian carcinoma.

Results: In ascites sample the mean for low grade was 0.57 pg/ml, while in the high grade was 0.68 pg/ml, in blood sample the mean for low grade was 0.74 pg/ml, whereas in high grade was 0.84 pg/ml. But the mean difference was not significant (ascites, $p = 0.780$; blood, $p = 0.861$). In ascites and blood, the mean for ascites was 0.66 pg/ml while in the blood was 0.81 pg/ml, but the mean difference is not significant ($p = 0.568$).

Conclusion: There is no significant difference between the expression of interferon-gamma (IFN- γ) ascites and blood fluid in low grade and high grade ovarian carcinoma, so the relationship between expression of interferon gamma to grading cannot be proven. There was no significant difference between the interferon-gamma (IFN- γ) expression in ovarian carcinoma ascites fluid and blood.

Keywords: interferon gamma (IFN-γ), ovarian carcinoma, grade, ascites