

INTISARI

Pemeriksaan kanker kolorektal (KKR) umumnya invasif dan rumit. Penelitian ini merupakan *pilot study* yang bertujuan menemukan penanda KKR noninvasif dan sederhana melalui analisis gambaran interaksi seluler darah-EDTA.

Gambaran interaksi seluler darah-EDTA diperoleh dari analisis pola absorbansi darah-EDTA tiap waktu menggunakan pendekatan deterministik dan stokastik. Subjek dibagi: kelompok normal (k1) sebanyak 32 orang, penderita KKR belum kemoterapi (k2) sebanyak 9 orang, penderita KKR pernah kemoterapi (k3) sebanyak 22 orang. Dilakukan 1 kali pengambilan 5ml darah vena tiap subjek. Darah dimasukkan dalam *vacutainer* EDTA. Absorbansi 550 μ l darah-EDTA dibaca pada λ_{max} 560nm setiap 8 detik selama 30 menit. Data pola absorbansi darah-EDTA dianalisis menggunakan pendekatan deterministik dan stokastik. Diperoleh nilai parameter sebagai gambaran interaksi seluler darah-EDTA: deterministik1 (D1), deterministik2 (D2), deterministik3 (D3), stokastik1 (S1), stokastik2 (S2), stokastik3 (S3). Nilai parameter antar kelompok diuji beda menggunakan uji parametrik atau nonparametrik ($p < 0,05$) bergantung normalitas data.

Parameter deterministik1, deterministik2, stokastik3 antara kelompok normal dan penderita KKR belum kemoterapi berbeda bermakna. Gambaran interaksi seluler darah-EDTA subjek normal dan penderita KKR belum kemoterapi dapat dibedakan menggunakan parameter deterministik1, deterministik2, stokastik3. Parameter deterministik1, deterministik2, stokastik3 dapat membedakan gambaran interaksi seluler darah-EDTA subjek normal dan penderita KKR pernah kemoterapi.

Kata kunci: KKR, gambaran interaksi seluler darah-EDTA, kemoterapi, penanda

ABSTRACT

Colorectal cancer (CRC) examination is generally invasive and complicated. This study is a pilot study that aims to find non-invasive and simple KKR markers through the analysis of blood-EDTA cell interaction.

The description of cellular interactions of blood-EDTA was obtained from the analysis of blood-EDTA pattern of absorbance at any time using a deterministic and stochastic approach. Subjects divided: normal group (k1) as many as 32, CRC patients not chemotherapy (k2) as many as 9, CRC had chemotherapy (k3) as many as 22. Five milliliters of venous blood per subject inserted in the EDTA vacutainer. The 550 μ l blood-EDTA absorbance was read at λ_{\max} 560nm every 8 seconds for 30 minutes. Blood-EDTA absorbance pattern data was analyzed using a deterministic and stochastic approach. The parameter values obtained as a description of cellular interactions of blood-EDTA: deterministic1 (D1), deterministic2 (D2), deterministic3 (D3), stochastic1 (S1), stochastic2 (S2), stochastic3 (S3). The parameter values between the groups were tested differently using a parametric or nonparametric test ($p < 0.05$) depending on the normality of the data.

Deterministic1, deterministic2, stochastic3 parameters were significantly different between normal and non-chemotherapy groups. The description of cellular interactions of blood-EDTA between normal subject and CRC patients not yet chemotherapy can be distinguished using deterministic1, deterministic2, stochastic3. Deterministic1, deterministic2, stochastic3 parameters can differentiate cellular interactions of blood-EDTA between normal subject and CRC patient who had chemotherapy.

Keywords: CRC, cellular interaction of blood-EDTA, chemotherapy, marker.