Katakterisasi sifat autofluoresensi jaringan adenokarsinoma menggunakan metode analisis multieksitasi

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Abstrak

Tujuan umum penelitian ini adalah mendapatkan suatu metode deteksi dini kanker berdasarkan analisis sifat optik antara jaringan normal dan adenokarsinoma menggunakan metode autofluoresensi multieksitasi. Pengamatan sifat autofluoresensi jaringan dilakukan pada sampel biopsi seksi jaringan adenokarsinoma, sampel mencit GR yang ditransplantasi adenokarsinoma, dan kultur sel SM 1. Eksitasi jaringan dilakukan menggunakan lampu Light Emiting Diode (LED) pada beberapa kisaran panjang gelombang cahaya tampak. Pada penelitian ini diperoleh data bahwa nilai intensitas autofluorsensi (IAF) pada kisaran panjang gelombang merah dari sel dan jaringan adenokarsinoma cenderung lebih rendah dibandingkan dengan jaringan normal jika dieksitasi oleh LED biru. Sebaliknya nilai IAF pada panjang gelombang infra merah dari sel dan jaringan karsinoma cenderung lebih tinggi dibandingkan dengan jaringan normal apabila dieksitasi oleh LED merah.

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Characterization of Adenocarcinoma?s Autofluorescence Properties Using Multiexcitation Analysis Method. General purpose of this research is to get an early cancer detection method based on the properties of optical analysis between normal and adenocarsinoma tissue using the multiexcitation autofluorescence method. Observation of autofluorescence properties was done on the biopsy sample of adenocarcinoma tissues, GR mice transplanted by adenocarsinoma, and cell culture SM 1. Excitation on tissue was done by using the lamp Light Emitting Diode (LED) at some visible light wavelength range. This research obtained that the value of Intensity Auto fluorescence (IAF) at range red wavelength of cells and adenocarsinoma tissues tend to lower compared to the cells normal tissues if its were excited by blue LED. On the contrary, the value of IAF at infra red wavelength from cells and carcinoma tissues tend to higher compared to the cells and normal tissues if its were excited by red LED.