Kadar seng plasma pada sindrom nefrotik relaps sering dan sindrom nefrotik dependen steroid pada fase relaps dan remisi = Plasma zinc levels in frequently relapsing nephrotic syndrome and steroid dependent nephrotic syndrome during remission and relapses

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Abstrak

Latar Belakang. Sebagian anak dengan sindrom nefrotik sensitif steroid (SNSS) akan menjadi sindrom nefrotik relaps sering (SNRS) dan sindrom nefrotik dependen steroid (SNDS). Mereka akan mengalami relaps saat dosis kortikosteroid diturunkan atau dihentikan. Infeksi merupakan salah satu pencetus relaps pada SN. Defisiensi seng plasma ditemukan pada SN fase relaps dan remisi. Akibat defisiensi seng plasma terdapat peningkatan risiko infeksi.

Tujuan. Mengetahui rerata kadar seng plasma pada SNRS dan SNDS.

Metode. Uji potong lintang dilakukan di Poliklinik Nefrologi Departemen Ilmu Kesehatan anak FKUI/RSCM dan Poliklinik Asoka RSAB Harapan Kita selama bulan Desember 2014 sampai Juni 2015. Subjek adalah penderita SN relaps sering dan dependen steroid usia 5-15 tahun dalam keadaan relaps atau remisi. Pada subjek dilakukan pemeriksaan kadar seng plasma dan albumin. Sebagai kontrol adalah anak sehat yang dipilih secara matching dalam usia.

Hasil penelitian. Dalam penelitian ini diikutsertakan 51 subjek yang terdiri dari 23 pasien SN relaps dan 28 SN remisi. Hasil penelitian menunjukkan bahwa pencetus relaps terbanyak adalah ISPA (84,3%). Kadar seng plasma pada SN fase remisi lebih tinggi secara bermakna dibandingkan dengan kadarnya pada SN fase relaps.[46,6 (18,1) vs 67,4 (14,8) ug/dL, P= 0,0001]. Proporsi defisiensi seng plasma pada SN relaps (17/23anak) lebih besar secara bermakna terhadap SN remisi (4/28 anak), P=0,0001. Defisiensi seng plasma merupakan faktor risiko untuk timbulnya relaps pada SNRS dan SNDS [RP 4,05 (IK95% 1,92-8,52),P=0,0001].

Simpulan. Proporsi defisiensi seng plasma pada SN fase relaps lebih besar secara bermakna dibandingkan fase remisi. Rerata kadar seng plasma pada penderita SN relaps lebih rendah secara bermakna dibandingkan SN remisi.

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Background. Fifty percents of children with steroid-sensitive nephrotic syndrome (SSNS) develop frequent relapsers and steroid-dependent nephrotic syndromes. Relapses can occur after corticosteroid therapy was stopped or rapid tappering off the prednisolone dose. Infections are the common causes of relapses in nephrotic syndrome. Low zinc level was found in nephrotic syndrome either in relapse or remission and this might lead to increased risk of infection.

Objectives. To analyze the mean of plasma zinc level in frequently relapsing nephrotic syndrome and

steroid-dependent nephrotic syndrome.

Methods. This cross sectional study was conducted from December 2014 to June 2015 in Nephrology clinic, Child Health Departement, FKUI/RSCM dan Asoka clinic, RSAB Harapan Kita. Fifty-one children aged 5-15 years who either had frequently relapsing nephrotic syndrome or steroid-dependent nephrotic syndrome during remission or relapses were recruited. Twenty-eight healthy children who were matched for age were included as control. Plasma zinc levels and albumin were measured.

Results. Among 51 children with nephrotic syndrome, 28 were in remission while 23 were in relapses. Acute respiratory tract infection were the commonest (83,4%) cause triggering relapses. Plasma zinc levels in remission phase of nephrotic syndrome was significantly higher than relapse phase.[46,6 (18,1) vs 67,4 (14,8) ug/dL, P= 0,0001]. Zinc deficiency proportion in nephrotic syndromes during relapses (17/23 children) was significantly higher than remission (4/28 children), P=0,0001. Plasma zinc deficiency was the risk factor of relapses in frequently relapsing nephrotic syndrome and steroid-dependent nephrotic syndrome.[PR 4,05 (CI95% 1,92-8,52),P=0,0001].

Conclusions. Plasma zinc deficiency was significantly higher in nephrotic syndrome during relapses compared to remission. The mean plasma zinc levels in nephrotic syndrome during relapses was significantly lower compared to remission.