Hemoglobinopati dan Defisiensi Besi pada Siswi SLTP Negeri Curug Tangerang

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Abstrak

ABSTRAK
Hemogiobinopati adalah kelainan hemoglobin bawaan yang diturunkan, merupakan salah satu penyakit genetik tersering dan menjadi masalah kesehatan masyarakat bagi banyak negara didunia. Sampai saat ini masih terdapat masalah gizi utama yang dihadapi di Indonesia seperti kurang kalori protein, gangguan akibat kurang yodium, kekurangan vitamin A dan anemia gizi.

Tujuan penelitian ini adalah pertama, ingin mengetahui angka kejadian dan pola hemoglobinopati pada siswi SLTP Negeri Curug Tangerang. Kedua, ingin mengetahui angka kejadian defisiensi besi pada siswi SLTP Negeri Curug Tangerang tersebut.

Sebagai bahan penelitian adalah darah vena sebanyak 6m1 dari 69 orang siswi SLTP Curug Tangerang yang berusia antara 13-15 tahun, dimasukkan kedalam 2 tabung penampung vacuette 3mL yang berisi antikoagulan K3EDTA. Pemeriksaan hematologi meliputi kadar hemoglobin, volume eritrosit rata-rata (VER), hemoglobin eritrosit rata-rata (HER) dan konsentrasi eritrosit rata-rata (KHER), dilakukan terhadap semua bahan pemeriksaan. Pemeriksaan kadar feritin dilakukan terhadap semua bahan pemeriksaan. Pemeriksaan elektroforesis hemoglobin dilakukan pada semua bahan pemeriksaan dan terhadap fraksi yang tebal dilakukan pencacahan. Uji dichlorophenol indophenol (DCIP) dilakukan terhadap kelompok kasus hemoglobin varian dengan fraksi HbA2 yang tebal. Pewarnaan supravital dengan brilliant cresyl blue (BCB) 1% dilakukan pada kelompok kasus eritrosit mikrositik hipokrom tanpa hemoglobin varian. Pemeriksaan kadar HbA2 dan HbF hanya dilakukan terhadap kelompok kasus eritrosit mikrositik hipokrom dengan kadar feritin >20 nglmL.

Hasil penelitian : Dari 69 orang siswi didapatkan kelompok kasus anemi 5169 (7,25%) dan kelompok kasus non anemi 64/69 (92,75%). Kelompok kasus anemi 5169 (7,25%) terdiri dari kasus anemi disertai defisiensi besi 4/69 (5,80%) dan kasus anemi tanpa defisiensi besi 1169 (1,45%) merupakan kasus anemi normositik normokrom. Anemi disertai defisiensi besi 4169 (5,80%) terdiri dari kasus anemi defisiensi besi lanjut 2169 (2,89%) dan kasus anemia defisiensi besi dini 2/69 (2,89%). Kelompok kasus non anemi 64169 (92,75%) dibedakan menjadi kasus non anemi disertai defisiensi besi dan kasus non anemi tanpa defisiensi besi. Kelompok kasus non anemi disertai defisiensi besi 14.169 (20,29%) terdiri dari kasus defisiensi besi prelaten 6169 (8,70%), kasus hemoglobin AE disertai defisiensi besi prelaten 2/69 (2,89%) dan kasus defisiensi besi laten 6169 (8,70%). Sedangkan kelompok kasus non anemi fanpa defisiensi besi 50/69,(72,46%) terdiri dari kasus hemoglobinopati tanpa defisiensi besi '12169' (17,39%}` dan sesuai dengan kemungkinan kasus "normal 38/69 (55,07%). Kelompok kasus hemoglobinopati tanpa defisiensi besi 12169 (17,39%) terdiri dari kasus hemoglobin AE 6/99 (8,70%), kasus thalassemia trait 4/69 (5,80%)

dan kemungkinan kasus thassemia at trait 2169 (2,89%).

SARAN : Pada kelompok kasus defisiensi besi setelah defisiensi besi teratasi, bila morfologi eritrosit masih tetap memperlihatkan mikrositik hipokrom, sebaiknya dilakukan pemeriksaan ulang analisa hemoglobin.
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ABSTRACT
Hemoglobinophaty and Iron Deficiency of Female Students in SLTP Negeri Curug TangerangHemogIobinopathy is an inheridited disorder and the most prevalent genetic disease, and is the cause of major public health problem in many parts of the world. Until now Indonesia has nutritional problems such as protein calory deficiency, iodium deficiency, vitamin A deficiency and nutritional anemia.

The first purpose of the study is to know the prevalence and pattern of hemoglobinopathy of female students in SLTP Curug Tangerang. The second purpose is to know the prevalence of iron deficiency of the female students in SLTP Curug Tangerang.

The samples were 6 cc of blood vein of 69 subjects about 13-15 years old. It was kept in 2 tubes of 3 cc tube vacuette each with anticoagulant K3EDTA. The hematologic examinations which were done for all samples were hemoglobin concentration, mean corpuscular volume (MCV), mean corpuscular hemoglobin (MCH) and mean corpuscular hemoglobin concentration (MCI-IC). The determination of ferritin concentration was done for all samples. Hemoglobin electrophoresis was done for all samples, and samples with thick fraction were scarred. Dichlarophenol indophenol (DCIP) was done for variant hemoglobins with thick HbA2. Supraviital stain with brilliant cresyl blue (BCB) 1% was done for microcytic hypochromic eritrocyte without variant hemoglobin group. The determination of HbA2 and HbF were only done for microcytic hypochromic erytrocyte group with feritin concentration >20 ng/mL.

The results showed that anemia cases were 5/69 (7.25%) and non anemia cases were 64169 (92.75%). The group of anemia cases with iron deficiency were 4169 (5.80%) and anemia case without iron deficiency was 1169 (1.45%) of normocytic normochromic anemia. Iron deficiency anemias were 4169 (5.80%) containing advanced iron deficiency anemias of 2169 (2.89%) and early iron deficiency anemias of 2169 (2.89%). Non anemia cases were 64/69 divided into non anemias with iron deficiency group and non anemias without iron deficiency group_ Non anemias with iron deficiency contained prelatbnt iron deficiency of 6169 (8,70%), hemoglobin AE with prelatent iron deficiency of 2169 (2.89%) and latent iron deficiency of 6169 (8.70%)_ Non anemias without iron deficiency were 50169 (72.46%) containing hemoglobinopathy without iron deficiency of 12169 (17.39%) and the possibility of "normal' cases of 38/69 (55.07%). Hemoglobinopathy without iron deficiency were 12169 (17.39) containing hemoglobin AE of 6/69 (8.70%), thalassemia ¢ trait of 4/69 (5.80%) and the possibility of thalassemia a? trait cases of 2169 (2,89%).

Suggestion for the iron deficiency group : If after the therapy was done, the morpgology erytrocyte is still microcytic hypochromic then hemoglobin analysis should be done.