PENGARUH ENDEMISITAS DAN STATUS GIZI TERHADAP KEJADIAN MALARIA BERAT

The Effect of Endemicity and Nutritional Status on the Occurrence of Severe Malaria

INTISARI

Malaria merupakan salah satu penyakit infeksi yang masih menjadi masalah kesehatan di Indonesia. *Annual Parasite Incidence* (API) Kabupaten Purworejo tahun 1988 sampai dengan tahun 2000 berturut-turut 13,75‰, 28,2‰, 44,5‰ dan merupakan angka tertinggi se Jawa Tengah. Angka kejadian malaria berat di Kabupaten Purworejo sampai saat ini belum dilaporkan dengan baik, dalam sistim pencatatan dan pelaporannya tidak dibedakan antara malaria berat dan malaria ringan, namun hanya dibedakan jenis spesies parasitnya.

Tujuan pertama penelitian ini adalah untuk mengetahui pengaruh tingkat endemisitas tempat tinggal penderita terhadap kejadian malaria berat, sedangkan tujuan kedua adalah untuk mengetahui pengaruh status gizi berupa kadar Hb, albumin, globulin dan protein total serum terhadap kejadian malaria berat.

Metode penelitian yang digunakan *cross sectional study* selama 4 bulan. Sampel penelitian diperoleh dari penderita malaria falciparum yang berumur 15 tahun, tidak dalam keadaan hamil, yang dirawat di Puskesmas Rawat Inap Loano, Puskesmas Rawat Inap Purworejo dan Puskesmas Rawat Inap Bagelen Kabupaten Purworejo. Penderita malaria yang tersampel dilakukan pemeriksaan fisik diagnostik dan dilakukan pemeriksaan sediaan darah tepi secara mikroskopis untuk menentukan adanya *Plasmodium falciparum* serta diperiksa kadar Hb, albumin, globulin dan protein total serum.

Hasil penelitian selama 4 bulan didapatkan 99 penderita, yang terdiri dari malaria berat 27% dan malaria ringan 73%. Sebagian besar penderita berasal dari desa HCI (90%), sedangkan sisanya 10% dari desa LCI. Hasil uji statistik dengan *Chi-Square Test* didapatkan nilai p sebesar 0,838 (>0,05), sehingga tidak ada pengaruh yang bermakna antara tingkat endemisitas desa tempat tinggal penderita malaria falciparum terhadap kejadian malaria berat. Status gizi penderita malaria falciparum ditentukan secara biokimiawi terhadap kadar Hb, albumin, globulin dan protein total serum. Hasil uji statistik dengan *Chi-Square Test*, masing-masing secara berurutan dihasilkan nilai p: 0,340 (>0,05), p: 0,712 (>0,05), p: 0,089 (>0,05), p: 0,576 (>0,05). Hal ini menunjukkan bahwa tidak ada pengaruh yang bermakna antara kadar Hb, albumin, globulin dan protein total serum penderita malaria falciparum terhadap kejadian malaria berat.

THE EFFECT OF ENDEMICITY AND NUTRITIONAL STATUS ON THE OCCURRENCE OF SEVERE MALARIA

ABSTRACT

Malaria is one of the infectious diseases which is still a public health problem in Indonesia. The Annual Parasite Incidence (API) of Purworejo Regency shows the rates repectively as follows: 13.75‰ in 1988, 28.2‰ in 1999 and 44.5‰ in 2000, indicating the highest rate throughout Central Java. Up to now the magnitude of severe malaria in Purworejo Regency has not been well reported because the system of recording and reporting does not distinguish severe malaria from mild malaria. It distinguishes only the species of the parasites.

The first objective of this research is to know the effect of the degree of endemicity of the patients' residences on the occurrence of severe malaria, whereas the second objective is to know the effect of the nutritional status containing Hb, albumin, globulin, and total serum protein on the occurrence of severe malaria.

The method used in this research is *cross sectional study*. The study lasted for 4 months. The research sample was taken from falciparum malaria patients aged 15 years, including women patients who were not pregnant. Those patients were in-patients who were treated at Loano, Purworejo and Bagelen Public Health Centers of Purworejo Regency. The samples were physically diagnosed and their peripheral blood was microscopically tested to determine the existence of *Plasmodium falciparum*, and the contents of Hb, albumin, globulin and total serum protein.

The four-month study was conducted on 99 patients, consisting of severe malaria (27%) and mild malaria (73%). Most of the patients (90%) came from the High Case Incidence villages, whereas the rest (10%) from the Low Case Incidence villages. The result of the statistical test with the Chi-Square Test shows that the value of p is 0.838 (>0.05), so there is no significant effect of the degree of endemicity of the residential areas on the occurrence of severe malaria. The nutritional status was biochemically determined towards the contents of Hb, albumin, globulin and total serum protein. The results of the statistical test with the Chi-Square Test are respectively as follows: the value of p: 0.340 (>0.05); the value of p: 0.712 (>0.05); the value of p: 0.089 (>0.05) and the value of p: 0.576 (>0.05). This shows that there is no significant effect of the contents of Hb, albumin, globulin and total serum protein on the occurrence of severe malaria.

Key words: Severe malaria, Endemicity, Nutritional Status.