Anemia in The Elderly

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More attention needs to be paid on anemia in the elderly in Indonesia, more studies on this subject need to be conducted and include the elderly population from some areas in Indonesia both urban and rural, as the data of this subject is still limited. The situation in Indonesia might be different than those in the developed countries as the average nutrition status, frequency of infection, and level of pollution in the environment are poorer in Indonesia. In the western countries like United States and Canada, large epidemiologic studies were conducted in order to find more informations regarding the effects of aging on bone marrow function in anemia in the elderly. Those studies indicate that anemia in females above age 59 is approximately equal to that found in females of child-bearing age. In men, a definite increase in the older age group is found. Studies from Great Britain are important, as they have determined the incidence of anemia in a large number of subjects over age 60. In both males and females, the incidence of anemia increases significantly with each successive decade. Anemia is not thought to be a normal feature of aging, as the etiologies in the elderly are very similar to those in young subjects. The basic pathophysiology of anemia of chronic disease is immune driven; cytokines and cells of the reticuloendothelial system induce changes in iron homeostasis, the proliferation of erythroid progenitor cells, the production of erythropoietin, and the life span of red cells, all of which contribute to the pathogenesis of anemia. Erythropoiesis can be affected by disease underlying anemia of chronic disease through the infiltration of tumor cells into bone marrow or of microorganisms, as seen in human immunodeficiency virus (HIV) infection, hepatitis C, and malaria. Moreover, tumor cells can produce proinflammatory cytokines and free radicals that damage erythroid progenitor cells. Bleeding episodes, vitamin deficiencies (e.g., of cobalamin and folic acid), hypersplenism, autoimmune hemolysis, renal dysfunction, and radio- and chemotherapeutic interventions themselves can also aggravate anemia. Almost all of those conditions are commonly found in the elderly.

A careful evaluation of healthy elderly living at home showed that iron deficiency anemia is much rarer in elderly than in young females and accounts for only a small fraction of anemia in elderly males. An investigation have demonstrated that in a group of elderly with anemia that was carefully selected confirmed that iron deficiency anemia was rare and found that the anemia of chronic disease, folate deficiency, hemolysis, and other rarer causes of anemia were uncommon. The elderly males and females with unexplained anemia had significantly lower leukocyte and neutrophil counts than nonanemic subjects, suggesting mild marrow failure.

Therefore, before we have more complete data on the anemia in elderly in Indonesia, we can refer to the data in the western countries, with more attention to be paid on the possibility of the presentation of some factors in our patients, especially the iron deficiency as well as the anemia of chronic disease.

REFERENCES