Monocytes, Chemoattractants for Monocytes (MCP-1 and IP-10) and Type I IFN in Influenza Virus Infection
Amalia DEHADIAN1, Emmy PRANGGONO1, Uun SUMARDI1, Hadi JUSUD2
Hassan Sadikin Hospital, Indonesia

Monocytes could be infected with influenza virus and induce rapid differentiation into myeloid dendritic cells (mDCs). Virus-induced mDCs secreted chemoattractants for monocytes (MCP-1 and IP-10). We aim to evaluate monocyte, chemoattractants for monocytes and IFN alpha in influenza virus H5N1 and H1N1. Secondary data were evaluated from medical record of H5N1(n=10) and H1N1 (n=8) who were hospitalized in Hasan Sadikin Hospital since 2005. MCP-1, IP-10 and INFalpha were evaluated using secondary data from previous study by Jusuf H: A Comparison of cytokine level between influenza A (H5N1) with influenza A (pH1N1) Mann Whitney test was used for comparison between H5N1 and H1N1, survival and death subjects. The correlation between chemoattractants for monocytes (MCP-1 and IP-10), INFalpha and monocyte count were calculated using Spearman correlation test. Monocyte count was lower in H5N1 compared to H1N1 (90 [6-240] vs 139 [36-560]/mm3, p 0.17). Monocyte count was higher in survival compare to death subjects (150 [50-560] vs 75 [36-240] /mm3, p 0.08). The death subjects had significantly higher MCP-1, IP10 and INF alpha (2171.5 [985-10000] vs 674.4 [450.2-1209.3] pg/ml, p 0.03, 3186.9 [2436.2-3937.6] vs 971.4 [520.7-2387.4] pg/ml, p 0.03 and 354.0 [87-2499.8] vs 18.6 [1.41-184] pg/ml, p 0.003, respectively). There was strong and significant negative correlation between monocytes count and MCP-1 (R -0.8, p 0.042) and between monocytes count and INF-10 (R -0.8, p 0.019). Monocyte count could be used to characterize the severity of influenza viral infection. The lower monocyte count correlate with the higher chemoattractant for monocytes produced by mDCs.

Anemia in Elderly Over Age 80: How Much is Enough?
Joo Kyung CHA1, Yun Jin JEONG1, Hyun Jung LEE2, Seok Lae CHAE2, Hee Jin HUH2, Jae-Woo CHUNG3, Do Yeun KIM1
Department of Internal Medicine, Dongguk University Ilsan Hospital, Korea1, Department of Laboratory Medicine, Dongguk University Ilsan Hospital, Korea2

Background: Anemia is commonly observed in elderly population, and the prevalence of anemia increases with advanced age. Anemia is a sign of poor health state and increase adverse outcomes in the elderly. Therefore, assessment of anemia is important in elderly patients.

Objectives: The aim of this study was to classify the type of anemia and to assess the current state of anemia evaluation in the elderly population.

Methods: Medical records-based retrospective study was performed for patients who were more than 80 years (>80) old and visited Dongguk University Ilsan Hospital from April 2005 to February 2014.

Results: Total 548 patients who had anemia according to WHO criteria were identified. The median age was 85 years old (range, 82-99) and median hemoglobin level was 11g/dL (range, 2.7-12.9). Twenty eight, 468, and 52 patients were classified as microcytic anemia, normocytic anemia, and macrocytic anemia, respectively. Among them, 397 patients (72.4%) did not underwent proper the evaluation for the cause of anemia. In detail: 8 (28.5%) of microcytic anemia, 361 (77.1%) of normocytic anemia, and the 28 (53.84%) of 52 macrocytic anemia patients. The remaining 151 patients (27.6%) had completed the evaluation, and 24 patients (15.9%) were diagnosed as solid or hematologic malignancies.

Conclusions: This finding showed physicians often neglected anemia in elderly over age 80. Though the patients have limited life expectancy, physicians need to discriminate the sub-population who will be benefit from adequate evaluation and treatment.

Patients with Anemia – The Realities of the Case Management on the Outpatient Treatment Stage
Elena LARYUSHKINA1, Arcady VERTIKIN2, Natalia KOVASJVA2
The Department of Therapy, Clinical Pharmacology and Medical Emergency, Russia1, The Department of Therapy, Clinical Pharmacology and Medical Emergency, Russia2

Background: to determine the prevalence rate of anemia and its types, causes of its contraction and approaches of its treatment on the outpatient treatment stage.

Methods: The medical records of the outpatients with the reduced level of hemoglobin in the complete blood count were analyzed retrospectively. The parameters were analyzed: sex, age, the severity of anemia (level of hemoglobin), the type of anemia (MCV), verification of the anemia type.

Results: 440 medical records of the outpatients with the reduced level of hemoglobin in the CBC were analyzed. Yet only in 27.6% of the cases anemia was indicated in the clinical diagnosis. From the 440 of the patients more than a half was represented by women at the age of 62.8±5.4. In 334 patients (76%) the anemia was light, in 70 patients (18%) anemia was of moderate severity, and in 27 patients (6%) it was severe. In 47% of the cases anemia was microcytic, in 40% it was normocytic and in 13% it was macrocytic. Iron deficiency anemia was diagnosed most often (46%). However, iron preparations and only in dyad form were prescribed in 16% of such cases. The treatment monitoring (blood crisis, hemoglobin increase, erythrocyte growth, iron metabolism) was carried out only in 48% of the cases.

Conclusions: 1. The diagnosis of anemia on the outpatient treatment stage is indicated in the clinical diagnosis only in every third patient, in spite of the low level of hemoglobin in the CBC. 2. On the outpatient treatment stage 6% of the patients have a severe form of anemia which fact is an indication for hospital admission that was not performed. 3. Iron deficiency anemia is treated only in every fifth patient and the treatment effectiveness is controlled in 48% of the cases.

Hemolysis Following Mitral Ring Annuloplasty and Iron Deficiency Anemia Case Caused by Duodenal Diverticulum
Zeynep Turba GULVEN1, Selma KARAHAHMETOGUL1, Ali Atilla AYDIN2, Rukiye KARA1
Ankara Numune Research and Training Hospital, Turkey1, Ankara Gultempe Military Medical Academy, Turkey2

Introduction: Hemolytic anemia, following mitral ring annuloplasty, is a rare entity. In this case hemolysis following mitral ring annuloplasty and iron deficiency anemia caused by duodenal diverticulum will be presented.

Case report: 55 years old women admitted to our Internal Medicine Department with the complaints of weakness, fatigue and dispease. She had history of hypertension and coronary artery disease. Her complaints had been beginning two months after the mitral annuloplasty operation. Her physical examination revealed; subicterus, paleness of conjunctuvia and 3/6 systolic murmur on mitral region. In biochemical evolution; Hemoglobin 7.2 mg/dl, Htc 25.4%, total bilirubin 2.7 mg/dl, direct bilirubin 0.8 mg/dl, LDH 1881 U/L. There wasn't occult blood in the stool. Both LDH1 and LDH2 were increased. Hypochromia, microcytosis and anisocytosis was detected in the peripheral blood smear and reticulocyte value was 3.1%. Serum iron level 28 mg/dl, iron binding capacity 357 mg/dl, ferritin 21.4 mg/dl and haptoglobin level was 7.2 mg/dl. Direct coombs test was detected +2. Findings were supporting hemolytic anemia. Ejection fraction was calculated in normal range at transthoracic echocardiography. There was an anuloplasty ring at mitral level, third degree mitral regurgitation and left atrial dilatation. TTE was supporting the same findings. Gastroscopy was performed revealing a large and deep diverticulum in postbulbar area and in the second part of duodenum. Since the patient did not accept coronary artery angiography and the operation, she was discharged.

Conclusion: We decided that intravascular hemolysis was due to mitral valve annuloplasty. After this operation, hemolytic anemia is a rare condition. Because if a patient admits after valvar operation with anemia; we should keep in mind that it can be hemolytic anemia. The patient should be examined in terms of other types of anemia like iron deficiency anemia.