

Mega-dose methylprednisolone in hematologic and non-hematological disorders

Hematolojik ve hematolojik olmayan hastalıklarda yüksek doz metilprednizolon

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To the Editor,

The comprehensive, basic and stimulating review article entitled "A novel approach to treatment in childhood acute myeloblastic leukemia and myelodysplastic syndrome with high-dose methylprednisolone as a differentiation and apoptosis-inducing agent of myeloid leukemia cells" by Prof. Hiçsönmez in the recent issue of the Journal gives me an opportunity to clarify this mode of treatment [1].

Although high-dose corticosteroid administration (up to 1000 mg) was used prior to our recommended method of methylprednisolone (MP) treatment, the drug was infused any time of the day intravenously over a 4-hour period, which is generally called "pulse MP treatment" although this term was not used before 1960.

The term "high-dose methylprednisolone" (HDMP) was used for our method of MP administration initially [2-6], following the dose recommendation by Bacigalupo et al. [7], but we changed the term to mega-dose methylprednisolone (MDMP), since HDMP was also used in the literature for 4-10 mg/kg doses.

I would also like to emphasize that MDMP treatment differs from conventional corticosteroid (2 mg/kg in divided doses) HDMP and pulse and bolus MP (1000 mg infused by Bacigalupo et al. in 4 hours) administration, not only by dose (which is increased up to 100 mg/kg, if required for 3 days initially and then tapered gradually) but also the time of administration [8].

Each MDMP dose (in 10-15 iv or at once orally, covered by honey) is given around 6 am (originally stated as before 9 am) when the corticosteroid level is

highest physiologically in the body, which seems to be important for adrenocorticotrophic hormone (ACTH) and corticosteroid homeostasis (highest dose of 4950 mg was given to a patient with acquired aplastic anemia). We gave a short course of MP (30 mg/kg for 3 days followed by 20 mg/kg for 4 days) to patients with acute idiopathic thrombocytopenic purpura, in which the disease prognosis was good; the duration of treatment usually extended to months or even years, according to the severity of the disease. It seems that longer usage of MDMP treatment is better for the prevention of recurrences and relapses [9].

Thus far, more than 500 patients with different hematological (acquired aplastic anemia, Diamond-Blackfan anemia, idiopathic myelofibrosis, idiopathic thrombocytopenic purpura, severe pure red cell hypoplasia, acquired thrombotic thrombocytopenic purpura, severe Coombs (+) hemolytic anemia, hypereosinophilic syndrome, paroxysmal nocturnal hemoglobinuria, Evans syndrome, idiopathic pulmonary hemosiderosis, Kasabach-Merritt syndrome, different acute leukemias, thalassemia intermedia) and non-hematological (steroid-resistant nephrotic syndrome, systemic lupus erythematosus, dermatomyositis, Kawasaki disease, mixed collagen disease, polyarteritis nodosa, rheumatic fever, rheumatoid arthritis, diaphyseal dysplasia, lymphocytic infiltration of the lung, alopecia universalis, sarcoidosis, osteopetrosis, hemangiomas) diseases have been treated with MDMP [10-13].

Corticosteroid side effects (hypertension, hyperglycemia, growth retardation, cushingoid appearance, etc.) were practically non-existent as reported by others [14],

with the exception of abdominal discomfort, which occurred in half of the patients with oral MDMP treatment [15].

The above points are important and highlight that the results of every high-dose corticosteroid can not necessarily be compared.

Lastly, I believe saline nose drops should be recommended to all MDMP users for the prevention of upper respiratory tract infections, as we previously suggested [16-17] so that interruptions in treatment can be prevented.

In short, I believe the term "MDMP treatment" better differentiates this kind of corticosteroid administration from the other applications, a point which we have reiterated on several occasions.

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