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LETTER TO THE EDITOR

# Megadose methylprednisolone (MDMP) treatment

**To the Editor,**

Dr. Öner and colleagues' article entitled, "Effect of high-dose methylprednisolone therapy on lymphocyte subsets in patients with acute immune thrombocytopenic purpura", included in the recent issue of the Journal (2005; 22: 185-189), gives me an opportunity to make some comments, since this kind of therapy was originally used by us in the treatment of some hematologic disorders[1-3], including ITP[4,5], which could also be important for the history of Turkish hematology.

The authors correctly stated that "HDMP treatment has been used as a therapeutic choice in childhood acute ITP in Turkey for a long time", but without providing references to the initiation of this method of treatment and the relation of antiplatelet antibodies (APA) to relapse and remission[5-7]. Although T cell response has been postulated for ITP pathogenesis, the relation between relapse remission and APA levels in this disorder has been shown clearly, and to date, only by us[5-7].

The term "high-dose methylprednisolone" for this kind of methylprednisolone (MP) administration was used by us initially, but was later changed to MDMP[8] since the HDMP term was also used for 4-10 mg/kg doses in the literature.

On this occasion, I would like to emphasize that MDMP treatment differs from conventional corticosteroid (2 mg/kg in divided doses) and pulse methylprednisolone (1000 mg MP infusion in 4 hours) administration not only by doses (30-100 mg/kg initially for 3 days and tapered gradually), but also the time of administration[9]. Each MDMP dose is given (in 10-15 minutes intravenously or at once orally, covered by honey) around 6 AM (originally stated before 9 AM) when the body's corticosteroid level is at its highest physiologically, which seems to be important for adrenocorticotropic hormone (ACTH) and corticosteroid homeostasis. Corticosteroid side effects (hypertension, hyperglycemia, growth retardation, Cushingoid appearance, etc.) are for the most part not observed, as stated by others[10]; especially in oral MDMP administration, only abdominal discomfort is experienced in half of the patients. The doses (30 mg/kg for 3 days and 20 mg/kg for 4 days) of MP for acute ITP treatment were also originally stated by us[8], and were also used by the authors.

Therefore, I believe the results obtained with every high-dose corticosteroid cannot be compared.

To date, more than 500 patients with different diagnoses have been treated with MDMP, some for a much longer period than in ITP cases. Cataract was observed in three patients (one with Diamond-Blackfan anemia, one with osteopetrosis and one with aplastic anemia) and osteonecrosis was diagnosed in only one adult patient with paroxysmal nocturnal hemoglobinuria. Therefore, I would suggest consideration of other factors for corticosteroid-associated (or related) osteonecrosis[11], such as procoagulant disorders, hemoglobinopathies, high leukocyte counts, etc.

Lastly, I believe saline nose drops should be applied to all MDMP users for the prevention of upper respiratory tract infections, as applied by us[12,13], to reduce the number of interruptions during the treatment.

Based on my experiences mentioned above, I wish to conclude that MDMP is the most cost-effective treatment for acute ITP, if treatment is required, and its use would probably prevent chronicity[9].

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**Adress for Correspondence**

**Şinasi Özsoylu, MD**

*Beysukent, Altınşehir sitesi No. 30 ANKARA*
*e-mail: sinasiozsoylu@hotmail.com*


# Response

We thank Dr. Özsoylu and appreciate his comments. We used the corticosteroid treatment perorally before 9 AM after breakfast as has previously been described by Özsoylu[1]. High-dose methylprednisolone (HDMP) was described in the *Materials and Methods* section. The megadose methylprednisolone (MDMP) term is more appropriate for this situation.

We know that this kind of treatment was originally established by Özsoylu[2], but the main goal of our manuscript was focused on the effects of HDMP on lymphocyte subtypes in patients with idiopathic thrombocytopenic purpura (ITP). The references were thus given on that basis. Some references suggested by Özsoylu were omitted.

We previously reported a case entitled, "High-dose steroid-related osteonecrosis in a four-year-old child with acute lymphoblastic leukemia" in the *Turkish Journal of Haematology*[3]. There were no predisposing factors such as procoagulant disorders or hemoglobinopathies, and many reports of osteonecrosis due to the use of steroids have been published in the literature (as seen in the Table of the manuscript). Therefore, we thought that the most probable cause of the developed osteonecrosis was corticosteroid treatment.


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**Adress for Correspondence**

**Öner Doğan MD**

*İstanbul University, School of Medicine Pathology Department, İstanbul*
*E-mail: onerdogan@hotmail.com*