

Oseltamivir and G6PD deficiency

Oseltamivir ve G6PD eksikliği

Şinasi Özsoylu

To the Editor,

In the recent issue of the Journal, Dr. Akar suggested that oseltamivir might be used safely in patients with glucose-6-phosphate dehydrogenase (G6PD) deficiency [1].

Since the substances that decrease reduced glutathione and membrane stability (by oxidation) are responsible for hemolysis in G6PD deficiency, I am interested to learn the reasoning for the oseltamivir reaction if it caused hemolysis?

References

1. Akar N. A note on oseltamivir treatment in a boy with G6PD deficiency. Turk J Hematol 2010;27:48.

Author Reply

We thank Prof. Dr. Özsoylu for his question concerning our letter that was written due to the non-existent information on oseltamivir usage in glucose-6-phosphate dehydrogenase (G6PD)-deficient individuals [1]. Dr. Özsoylu wondered about the possible mechanism of oseltamivir that may be responsible for the hemolysis in G6PD-deficient individuals.

Following oral administration of oseltamivir, after de-esterification of the compound, primarily the active

metabolite oseltamivir carboxylate is produced. Other metabolites-oseltamivir phosphate, D3-oseltamivir phosphate, and D3-oseltamivir carboxylate - have since been detected [2,3]. There is at present no information on the possible effects of these compounds on the G6PD pathway. As a result, G6PD-deficient individuals have been excluded during the pharmacokinetic studies of oseltamivir [2].

As we stated previously, further studies are needed on this subject.

Sincerely,

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References

1. Akar N. A note on oseltamivir treatment in a boy with G6PD deficiency. Turk J Hematol 2010;27:48.
2. Holodniy M, Penzak SR, Straight TM, Davey RT, Lee KK, Goetz MB, Raisch DW, Cunningham F, Lin ET, Olivo N, Deyton LR. Pharmacokinetics and tolerability of oseltamivir combined with probenecid. Antimicrob Agents Chemother 2008;52:3013-21.
3. Doucette KE, Aoki FY. Oseltamivir: a clinical and pharmacological perspective. Expert Opin Pharmacother 2001;2:1671-83.