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## SHORT COMMUNICATION

# *IN VITRO* EFFECTS OF SOME ANESTHETIC DRUGS ON ENZYMATIC ACTIVITY OF HUMAN RED BLOOD CELL GLUCOSE 6-PHOSPHATE DEHYDROGENASE

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*In vitro effects of some anesthetic drugs on enzymatic activity of human red blood cell glucose 6-phosphate dehydrogenase.* S. ALTIKAT, M. ÇİFTÇİ, M.E. BÜYÜKOKUROĞLU. Pol. J. Pharmacol., 2002, 54, 67–71.

The study investigated *in vitro* effects of halothane, isoflurane, ketamine, sevoflurane, prilocaine, diazepam, and midazolam on enzymatic activity of human red blood cell glucose-6-phosphate dehydrogenase (G6PD; E.C. 1.1.1.49). G6PD was purified from human red blood cells by 2',5'-ADP-sepharose 4B affinity gel. Enzymatic activity was spectrophotometrically measured at 340 nm according to the method of Beutler. $I_{50}$ values were determined from drug activity (%) – drug concentration curves. $I_{50}$ values were as follows: 0.72 mM for isoflurane, 1.82 mM for sevoflurane, 0.38 mM for diazepam, and 0.0019 mM for midazolam. But halothane, ketamine and prilocaine had no inhibitory effect on the G6PD activity in *in vitro*.

***Key words:*** *glucose-6-phosphate dehydrogenase, human red blood cell, general anesthetics, in vitro*

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