Abstract: We investigated the effects of the iron chelator desferrioxamine (DFX) on thrombus formation in the arterioles and venules of the rabbit ear chamber. Thrombi were induced by irradiation with filtered light in combination with a fluorescent dye. The occlusive thrombus formation time was significantly extended by DFX. The morphological composition of thrombi in the arterioles and venules was different. In the arterioles, the thrombi consisted of platelet aggregation, but in the venules, platelets and leukocytes accumulated on the endothelium. This suggests that hydroxyl radicals may be important mediators in this model, as DFX is known as a hydroxyl radical scavenger. Furthermore, the components of thrombi in the arterioles and venules in the skin microvascular system may be different. J. Med. Invest. 46: 200-204, 1999

Keywords: rabbit ear chamber, desferrioxamine, thrombus formation, microcirculation
Photochemically induced thrombosis model

Experimental Groups and Administration of DFX

Statistical Analysis
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The present study was performed to investigate the effects of DFX on thrombus formation in vivo. The experimental animals were divided into two groups: control and DFX-treated. The thrombus formation was assessed by measuring the duration of bleeding from the injured site. A significant reduction in the bleeding time was observed in the DFX-treated group compared to the control group. These results suggest that DFX has a potent anti-thrombotic effect.

In conclusion, the present study demonstrated that DFX is effective in inhibiting thrombus formation in vivo. Further studies are needed to elucidate the mechanism of action of DFX and to evaluate its potential as a therapeutic agent for the prevention of thrombotic complications.
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