**INTRODUCTION**

Prošek is traditional Croatian dessert wine produced by fermentation of dried grapes. It results with wine of distinctive organoleptic properties, high alcohols and unfermented sugars. In comparison to standard wines, biological effects of dessert wines are scarcely investigated. Our aim was to analyze and compare biochemical, antioxidant and direct vasodilatory activity of Prošek produced from Plavac mali with the corresponding standard red wine.

**METHODS**

Three vintages of Prošek (2007, 2008 and 2009) were compared with standard wine from 2007. All wines were analyzed spectrophotometrically for the content of total phenolics, flavonoids, non-flavonoids and anthocyanins and by HPLC for the content of selected flavanols and phenolic acids. The antioxidant activity was determined by Ferric Reducing Antioxidant Power (FRAP). The vasodilatory activity was determined in the isolated rat aortic rings (N=24 rats) precontracted by noradrenaline (10^{-5} M). Wines were applied in cumulative concentrations from 1:1000 to 5:1000.

**RESULTS**

The direct maximal vasodilatory effect of Prošek relative to the standard wine was 20 - 30% lower. Similarly, Prošek had lower antioxidant capacity than corresponding standard wine. While total phenolic and flavonoid content was higher in standard red wine, anthocyanins content did not differ between the wines. Prošek had higher content of flavonoids, epicatechin and epicatechin gallate and non-flavonoids, 4-dihydroxybenzoic acid.

**CONCLUSION**

Prošek proved inferior to standard red wine in direct vasodilatory and antioxidant activity despite of higher content of individual flavonoid and non-flavonoid compounds.