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## Electron paramagnetic resonance study of tumor affected bone marrow

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### Abstract

To study the mechanism of interaction of tumor cells with bone marrow cells continuous wave electron paramagnetic resonance (EPR) experiments at 9 GHz including a spin trapping of superoxide were carried out. The common features of the EPR spectra in healthy and tumor affected tissues of donors and rats as well as their difference are presented and discussed. It is proposed that labile iron pool plays a significant role in mechanisms of tumor invasion. We hope that the observed EPR features could be used to study the mechanisms of invasion and progression of tumor in different organs. © 2013 Springer Science+Business Media Dordrecht.

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### Keywords

Bone marrow, Electron spin resonance spectroscopy, Iron metabolism disorders, Medical oncology