

DMSA in lowering blood Pb cancerogenic level

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INTRODUCTION: DMSA – 2,3-dimercaptosuccinic acid is a dietary supplement (and drug) used mainly in acute Pb and Hg poisoning. It acts as a heavy metal chelator. Our previous studies showed that increased Pb levels are carcinogenic. We decided to use DMSA as a potential anti-carcinogenic agent.

AIM OF THE STUDY: Efficiency of DMSA in lowering of blood Pb concentration

STUDY GROUPS

1. healthy women BRCA1(-) and Pb concentration > 7,5 µg/L
2. healthy women BRCA1(+) and Pb concentration > 8,0 µg/L
3. healthy men and Pb concentration > 13,5 µg/L

RESULTS: The average Pb blood concentration after 4 weeks of DMSA supplementation decreased: from 17,0 to 6,2 µg/L in BRCA1(+) group, from 14,3 to 4,6 µg/L in BRCA1(-) group and from 32,83 to 9,3 µg/L in men group. These values indicate drop of average Pb concentration by 61,1%, 66,0% and 69,3% in BRCA1(-), BRCA1(+) and men group, respectively.

CONCLUSIONS: DMSA may be used for effective lowering of Pb blood concentration and does not cause serious adverse effects.