In renal scintigraphy one of the most widely used pharmaceuticals is technetium-99m (99mTc) dimercaptosuccinic acid (DMSA). 99mTc DMSA is the best radiopharmaceutical substance that displays renal cortex. In this study, oxidative stress was investigated pose of 99mTc DMSA in rats. For this purpose, total antioxidant capacity (TAC), total oxidant capacity (TOC) and oxidative stress index (OSI) was investigated DMSA injected 8 Sprague Dawley rats' in blood. In addition, the kidney tissues of rats with SOD, CAT, GSH-Px and MDA levels are also calculated. 8 rats were evaluated as a control group without application of 99mTc DMSA.

End of the study, compared with the control group, rats with 99mTc DMSA applied to the OSI, and high levels of MDA, SOD, CAT and GSH-Px levels were found to be low. Conclusion: These results indicate a negative impact on the activities of antioxidant enzymes of rats with 99mTc DMSA application.