

عنوان مقاله:

Study of vitamin D3 and cortisol variation in patients treated with 200 mCi radioactive Technetium

محل انتشار:

اولین کنفرانس ملی یافته های نوین زیست شناسی (سال: 1395)

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خلاصه مقاله:

Introduction: Side effects of radioactive Technetium on tissues and organs is a major concern in today's nuclear medicine. The aim of the present study is the analysis of vitamin D3, and cortisol variation in patients treated with 200 mCi radioactive Technetium. **Materials and Methods:** 32 patients in the range of 18 to 60 years old in the nuclear medicine department have been studied in two stages: Before treatment with Technetium and 48 hours after ingestion (5CC venous blood was taken). The time gap between surgery and therapy was two months and the first patients were admitted for treatment with radioactive Technetium. In this period, changes in levels of vitamin D3 and cortisol were record-ed. Each patient was compared to itself but the entire community were compared using a paired test results. **Dependent T-Test, lightweight box plot Box-Plot, and Q-Q plot Results:** The results from the test dependent T-Test showed that the levels of vitamin D3 in patients after receiving Technetium decreased significantly (about 3.62 ± 2.78). On the other hand, radioactive Technetium induced increment ($p < 0.05$) in the levels of cortisol (4.91 ± 3.72). **Conclusion:** Increased in cortisol content by suppressing the body immune system, and the deficiency of vitamin D3 by reducing the calcium deposition in bones can be considered as risk factors for secondary cancers and osteoporosis in long-term exposure of radioactive Technetium

کلمات کلیدی:

Nuclear medicine, Vitamin D3, Cortisol, Technetium

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