Titanium toxicity - A reality often disregarded

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Introduction: Titanium is considered the material of choice for intra-osseous use in dentistry owing to its excellent biocompatibility, its ability to form a passive oxide film, good mechanical properties and high resistance to corrosion. Questioning this general belief, there have been reports in literature suggesting such body responses to titanium, which put the suitability of this material under scanner. Allergic reactions and toxicity potential of titanium have not been thoroughly studied or even considered by dentists.

Summary: The prevalence might be low, but there is enough evidence to suggest a thorough history taking and diagnostic assessment for allergies before placing Titanium implants in patients. Symptoms of allergy, soft tissue hyperplastic lesions, peri-implantitis, unexplained implant failures and bone loss cannot be disregarded.

Conclusion: Clinicians need to be aware of the toxic possibilities that may arise due to Titanium use- immediate as well as long term. They should be able to diagnose them, in spite of its rare occurrence. Also it would be wise to use implants made of some alternative material. This presentation thus aims to provide an overview of the risks associated with titanium materials and to suggest alternative biomaterials as a practical solution.

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