



Vaidya Bala

ISLHD,
Australia

Biography

Vaidya Bala, is a Medical Co-Director for Population and Public Health at the Illawarra and Shoalhaven Local Health District Hospitals and a Senior Staff Specialist in Rehabilitation Medicine at The Wollongong Hospital, Wollongong, NSW, Australia. He is pursuing a Population Health Doctorate at Campbell University, NC, USA. He has published 12 papers in international peer-reviewed journals and presented at various international conferences since 2005. He is currently an examiner with the Royal Australasian College of Physicians for the Faculty of Rehabilitation Medicine and a Senior lecturer at the University of Wollongong.

Cobalt Syndrome Following Joint Replacement Surgeries And Dermatological Manifestations

Abstract:

Cobalt poisoning following hip replacement surgery is not widely reported in the Australian literature. However, there have been notable cases of patients experiencing cobalt toxicity in Australia, particularly with the DePuy ASR (articular surface replacement) XL Acetabular Hip System prosthesis containing cobalt and chromium. This prosthesis has been recalled due to these issues. Cobalt toxicity is a potential complication of metal-on-metal (MoM) hip replacement surgeries. Cobalt toxicity has been identified as an emerging clinical problem in patients with metal-on-metal hip prostheses. This issue has been documented in several Australian patients. Cobalt toxicity can lead to various health problems, including cardiomyopathy, hypothyroidism, lassitude, neuropathy (loss of taste, smell, and hearing), focal and diffuse weakness, and rashes. The Therapeutic Goods Administration (TGA) in Australia has provided guidance and resources for patients with MoM hip implants.

Case presentations: The author presents the first reported case in the Illawarra and Shoalhaven districts of Wollongong, NSW, Australia. The patient is a 71-year-old male who underwent a Stryker ABGII modular hip prosthesis in 2011. Following his surgery, he continued to experience pain and instability, resulting in prosthetic loosening. The prosthesis was recalled in 2012, following which his cobalt levels were checked regularly every two years. The patient had a recurrent left hip dislocation and, in 2021, underwent a revision surgery, following which he gradually improved with hip stability, but his symptoms remained unresolved.

Conclusions: Despite reported cases in Australia, there remains a lack of literature to support the extensiveness of Cobalt-related toxicity. The author would like to propose a new terminology, "Cobalt Syndrome," instead of using Metallosis and Cobaltism due to the lack of scientific validation of those terminologies and to raise awareness within the Australian community on the potential harm secondary to metal-on-metal hip replacement surgeries done in the last two to three decades.