

Usage Of Cholecalciferol Among Adult Patients in Putrajaya Hospital (HPJ)

Farahiyah binti Abraham Peintkowsky, Bachelor of Pharmacy¹, Nurhazira binti Alang, Master of Pharmacy (Pharm Practice)², Nur Izzaty binti Radzi, Bachelor of Pharmacy³, Ahmad Ridzuan bin Mohd Hijazi, Bachelor of Pharmacy⁴, Rosalind Sia Guen Lin, Bachelor of Pharmacy⁵, Lim Jie Shi, Master of Pharmacy⁶, Fadhilah Najwa binti Ismail, Bachelor of Pharmacy⁷, Harkiren Kaur, Master of Pharmacy⁸

¹Department of Pharmacy (Production) Hospital Putrajaya, Putrajaya, Malaysia, ²Pejabat Kesihatan Daerah Putrajaya, Putrajaya, Malaysia, ³Department of Pharmacy (Ward Supply), Hospital Putrajaya, Putrajaya, Malaysia, ⁴Department of Pharmacy (Logistics), Hospital Putrajaya, Putrajaya, Malaysia, ⁵Department of Pharmacy (Clinical Pharmacy) Hospital Putrajaya, Putrajaya, Malaysia, ⁶Mundipharma Pharmaceuticals, Selangor, Malaysia, ⁷Department of Pharmacy, Hospital Tanah Merah, Kelantan, Malaysia, ⁸Bio Care Pharmaceutical, Selangor, Malaysia

ABSTRACT

Introduction: Vitamin D Deficiency is common in Southeast Asia and South Asia countries despite the abundance of sunshine which is essential for the Cholecalciferol production. In Malaysia, increase usage of Cholecalciferol is reported. The purpose of this study was to investigate the secondary causes of Vitamin D deficiency or insufficiency as well as its efficacy in improving vitamin D level and possible association with gender and ethnic populations. **Methods:** An observational study design using retrospective clinical data was performed among adult patients treated with Cholecalciferol in Hospital Putrajaya, Malaysia. A total of 138 patients were treated with Cholecalciferol from January 2011 until December 2017 with baseline and post administration Vitamin D level were included in this study. **Results:** Most of the patients were females (n = 123, 89.1%) and Malays (66.7%, n= 92). The main secondary causes of vitamin D deficiency are thyroid disease (n=43, 31.1%), chronic inflammatory polyarthropathies (n=37, 26.8%), post-menopausal osteoporosis (n=17, 12.3%) and obesity (n=16, 11.6%). The number of patients with Vitamin D deficiency was significantly reduced (p<0.001) after treatment with Cholecalciferol by comparing the pre and post vitamin D level. There were no association between gender (p=0.096) and ethnicity (p=0.584) towards Cholecalciferol supplementation. **Conclusion:** Cholecalciferol is the treatment of choice in Vitamin D deficiency as it has significant effect in raising serum Vitamin D levels in adults with Vitamin D deficiency in Putrajaya Hospital.

Demographic and Clinical Characteristics of Mortality Among Children with Tuberculosis in Malaysia

Maria Kamal, MB BCh BAO (Ire)¹, Lui Sze Chiang, MOHRE¹, Then Moli Othayamoorthy, MD (UNPAD)¹, Mohd Ihsani Mahmood, DRPH (UKM)¹, Asiah Kassim, M. PAED (Mal)^{1,3}

¹Clinical Research Centre, Hospital Tunku Azizah, Kuala Lumpur, ²Section for Tuberculosis and Leprosy, Disease Control Division, Ministry of Health Malaysia, ³Department of Paediatric, Hospital Tunku Azizah, Kuala Lumpur

ABSTRACT

Introduction: Diagnosing tuberculosis (TB) in children is challenging; detection of Microbacterium tuberculosis in sputum is difficult, x-ray evidence is often non-specific, and tuberculin skin test is less sensitive than in adults. Early recognition enables timely diagnosis and treatment of TB among children and prevent mortality. Our objective was to describe the characteristics of children who succumbed to TB in Malaysia. **Methods:** This is a retrospective study. Cases were identified through TB Surveillance System Malaysia (TBSS). This study includes children aged 16 years old and below who died from TB from 1st January 2018 to 31st December 2020. **Results:** Eighty-five children succumbed to TB. Fifty-six percent were females and 42.4% were non-Malaysian. Twenty-five of them were less than 5 years old. Fifty-six had BCG vaccination. Fifty-four children had chest x-ray; all were abnormal. Forty-five children had direct smear for acid-fast bacilli done from respiratory secretions; 31 were positive. Children aged less than 5 years old predominantly had extra-pulmonary TB with/without smear negative pulmonary TB. Fifty-eight percent of children who succumbed from TB had extra-pulmonary disease. The cause of death for a majority of them (25.9%) were recorded as septicaemia with multi-organ failure, followed by disseminated TB (18.8%). Median duration between diagnosis to death was 8.5 days (1- 280 days). **Conclusion:** In this study more than half of children succumbed had extra-pulmonary TB involvement suggestive of extensive TB disease. Early detection is important to prevent progression of the disease and mortality. This study highlighted the importance of early TB diagnosis and treatment among children in Malaysia.