EDITORIAL

ADVANCE DIAGNOSTICS TO RESOLVE INTRICATE AND NEGLECTED HEALTH PROBLEMS IN INDONESIA

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We are proud to present the first full English edition of Berkala Ilmiah Kedokteran Duta Wacana (BIKDW) starting from this fifth volume in 2020. In this issue, we present articles on the utilisation of medical technology for daily clinical practice, and research on preventive medicine.

Medical technology has gradually replaced human ability in the medical field, including the diagnostic approach. Computed tomography (CT) scan and Magnetic resonance imaging (MRI) has more widely available in Indonesia, especially outside Java Island. In addition, the utilisation of the polymerase chain reaction (PCR) method to detect microbial pathogens has been increasingly accessible in many major cities. Despite this advancement, health practitioners should wisely utilise those technologies in providing quality health care, especially in intricate cases with unknown aetiology, vague symptoms and endemicity. Ranuh et al. describe important disease progress of a tubercular meningitis case in children. The lack of treatment adherence in this report has caused deterioration of infection, which fortunately was captured with the brain CT scan. It adds valuable knowledge on the role of imaging in diagnosing meningeval involvement of tuberculosis, and preventing complications, especially in children.

Magnetic resonance imaging has been very well utilised for cerebrovascular imaging, including stroke. In this issue, Silalahi emphasised the importance of clinical judgement in determining the diagnosis and initiating early treatment, as diffuse weighted MRI failed to identify brain pathology in a patient with stroke symptoms. Cryptogenic stroke diagnosis in this report was based on negative laboratory and imaging findings, hence the treatment decision relies only on physical examination. This report is expected to encourage clinicians in utilising appropriate tests and imaging techniques to accurately diagnose cryptogenic stroke in daily practice.

Advanced technology, such as polymerase chain reaction (PCR), has also been widely used in laboratory diagnostics. Commonly used in bacteriology examinations, Sooai et al have explored the benefits of PCR in diagnosing helminth infections. Prior to this study, there were no specific PCR settings to optimise the diagnosis of helminthiasis. In addition, preserved specimens also posed challenges in parasite identification, while preservation might be the best transportation method, as neglected diseases are highly prevalent in the Eastern part of Indonesia and remote islands where technology is rare. The authors have successfully discovered optimum conditions for PCR analysis on preserved specimens, which hopefully support more accurate diagnosis. In terms of public health assessment, the optimal PCR setting might assist in community diagnosis and public health surveillance of neglected tropical diseases.
This issue also publishes articles related to the role of nutritional factors in common health problems, which should be considered in planning complex health intervention. Pradana et al describe the nutritional factors of measles infections, either undernutrition and overnutrition, which are usually overlooked by public health practitioners. They suggest that strategy to prevent measles should consider the community intervention of malnutrition, especially undernutrition, to reduce future cases. A similar nutritional factor was observed by Benita et al in primary dysmenorrhea cases, where either under and overnutrition is related to a higher prevalence of cases. Both studies suggest that public health authority should involve nutritional intervention to reduce the measles and dysmenorrhea cases.

The demand for advanced diagnostics is increasing, while researchers discover new modalities or re-used available technology for novel diseases. Nevertheless, the keys to optimal utilisation of modern diagnostic are detailed clinical examinations and deep understanding of diagnostic methods. These would help us in daily clinical practice and public health measures.