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Theme

**Intertwining Foundation With Innovation**

**ABSTRACT BOOK**

The design of the cover page was inspired by the seamless blending of state of the art imaging modalities and techniques with traditional Malay art to signify the theme chosen for the Malaysian Congress of Radiology 2023.

# Foreword

We stand at the crossroads of medical progress, where the intricate tapestry of tradition intertwines seamlessly with the boundless realms of innovation. The Malaysian Congress of Radiology 2023, held from 21-23rd July 2023 in the vibrant city of Kuala Lumpur, serves as a beacon for the convergence of foundational knowledge and cutting-edge advancements in the field of radiology.

Within the pages of this abstract book, we present the culmination of intellectual pursuit and scientific rigor, showcasing the top 100 abstracts carefully curated from a pool of brilliant minds. The theme of "Intertwining Foundation with Innovation" encapsulates the essence of this congress, as radiologists, radiology trainees, and allied health professionals come together to explore the harmonious interplay between time-honoured practices and pioneering technologies.

I commend the dedication and expertise of all those who have contributed to this abstract book. May it inspire fruitful discussions, ignite fresh insights, and foster collaborations that will shape the future of radiology, ensuring the highest standards of patient care and medical excellence.

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Malaysian Congress of Radiology 2023

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## A RETROSPECTIVE STUDY OF CT IMAGING OF PULMONARY EMBOLISM IN PATIENTS WITH COVID-19 PNEUMONIA USING DUAL ENERGY CT

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**Keywords:** CT pulmonary angiography (CTPA), dual energy computed tomography (DECT), Pulmonary embolism (PE)

### Background

Pulmonary Embolism (PE) is a known complication of COVID-19, and CT pulmonary angiography (CTPA) is commonly recommended for its detection. DECT offers additional value in diagnosing COVID-19 and its complications, particularly in detecting small pulmonary emboli. The aimed of this study is to assess the presence of PE, to determine the location of the thrombus and assess the utility of iodine density mapping in evaluating embolism with DECT.

### Methodology

Retrospective study from May until September 2021 conducted on 163 patients with COVID-19 infection (positive PCR) and suspected PE.

### Results

163 patients PE suspicions with confirmed COVID-19 underwent CTPA. 19 patients were diagnosed with PE with a predominant segmental distribution. All the PE positive patients showed increased in D-Dimer value. Interestingly, four cases initially interpreted as PE negative by the previous radiologist were later found to be PE positive. The study found no significant difference in detecting pulmonary embolism between the conventional algorithm and dual-source energy reconstruction. However, DECT demonstrated practical advantages over conventional CTPA in detecting acute PE.

### Conclusion

Currently, DECT is not considered a routine diagnostic procedure for evaluating PE according to guidelines. However, with increasing familiarity among radiologists and adjustments in image acquisition and post-processing methods, the application of DECT for PE evaluation could expand. This could lead to the recognition of its benefits and the potential to enhance the detection and confident diagnosis of pulmonary embolism.