JOURNAL OF CLINICAL AND HEALTH SCIENCES

JCHS

SUPPLEMENTARY ISSUE

**MARCH 2026**
**VOLUME 11 ISSUE 1 (SUPPLEMENTARY)**


Official Journal of
Faculty of Medicine
Universiti Teknologi
MARA

UNIVERSITI TEKNOLOGI MARA



eISSN-0127-984X

Journal of Clinical and Health Sciences, Vol 11 Issue 1(Supplementary) 2026
Emerging Trends in Medical Imaging: From Patients to Pixels Symposium, 19 June 2025
https://doi.org/10.24191/jchs.v11i1.10839

**ADD004**

## Comparative Evaluation of Computed Tomography Severity Score and Quantitative Computed Tomography in Covid-19 Pneumonia Assessment

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**Introduction:** At the end of 2019, Coronavirus disease 2019 (COVID-19), caused by the novel SARS-CoV-2 virus, emerged as a global health crisis, prompting the urgent need for effective tools to assess disease severity. High-resolution computed tomography (HRCT) has played a pivotal role in evaluating pulmonary involvement, traditionally interpreted using the radiologist-dependent Computed Tomography Severity Score (CTSS). However, CTSS is subjective and time-consuming. Quantitative computed tomography (QCT), utilizing automated software, offers a faster and potentially more objective alternative. **Methodology:** This retrospective study was conducted at a Covid-19 centre in Klang Valley, on patients with confirmed category 4 or 5 COVID-19 who underwent HRCT between June 4 and September 30, 2021. **Results:** The relationship between CTSS and QCT was evaluated using Spearman's correlation coefficient, revealing a strong positive correlation. Cohen's Kappa demonstrated substantial agreement, reinforcing QCT's reliability. Statistical analysis using SPSS version 27.0 further examined associations with comorbidities and demographic factors. Diabetes showed a significant association with increased lung severity, while hypertension and heart disease did not. These findings suggest that QCT not only correlates well with CTSS but also enhances efficiency by providing quicker, consistent assessments of lung involvement. **Conclusions:** In pandemic conditions where rapid triaging is essential, QCT proves to be a valuable tool in clinical decision-making. Thus, QCT may serve as a reliable and efficient alternative to CTSS in evaluating lung severity among COVID-19 patients.

**Keywords**: Covid-19, quantitative computed tomography, Computed Tomography Severity Score, high-resolution computed tomography.

**ADD005**