PA-A-30

RELIABILITY OF THE 2017 ACR TI-RADS CLASSIFICATION SYSTEM IN DETECTING MALIGNANT THYROID NODULES

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INTRODUCTION
In 2017, the American College of Radiology (ACR) proposed a new point-based reporting system, the ACR Thyroid imaging reporting and data system (ACR TI-RADS) consisting of 5 categories ranging from TR1 to TR5, stratifying thyroid malignancy risk based on ultrasound features and a predetermined size cut off for fine needle aspiration cytology (FNAC) or follow up. Since the introduction of ACR TI-RADS, this system has been validated in other countries. We aim to evaluate the reliability and practicality of the ACR TIRADS scoring system in our centre.

METHODOLOGY
A cross-sectional observational study of 592 adult patients (716 thyroid nodules) from 2019-2021 in Hospital Queen Elizabeth and Hospital Queen Elizabeth II, Kota Kinabalu who had thyroid ultrasound and available FNAC and/or histopathological examination (HPE) results. The ACR TI-RADS system was applied to categorize thyroid nodules. The performance and diagnostic accuracy of the ACR TIRADS scoring system, the risk of malignancy in each TR category and the percentage of unnecessary FNAC rates were determined.

RESULTS
The ACR TI-RADS performance showed a specificity, sensitivity, positive predictive value (PPV), negative predictive value (NPV) of 94.6%, 41.8%, 26.4%, 97.2%. The diagnostic accuracy was 51.5%. The ROC curve analysis showed AUC 0.794 (95% CI: 0.753-0.834). The risk of malignancy was 0% for TR 1 and 2, 4.1% for TR3, 17.2 % for TR4, and 52.9% for TR5. The unnecessary FNAC rate was 32.5%.

CONCLUSION
The ACR TI-RADS system applied in our centre is synonymous with other validated studies and is a reliable system to differentiate malignant from benign thyroid nodules. The high unnecessary FNAC rates inform that FNAC should be deferred in patients with TR 1 and 2 nodules.

PA-A-31

DIABETIC KETOACIDOSIS IN A NEW ONSET ELDERLY TYPE 1 DIABETES AFTER SARS-CoV-2 VACCINATION: ASSOCIATION OR COINCIDENCE?

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INTRODUCTION
In the era of the COVID-19 pandemic, several cases of new onset diabetes associated with COVID-19 have been reoprted. Additionally, patients with diabetes, a high-risk population, are prioritised for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) vaccination. The vaccine against the (SARS-CoV-2) could represent a new environmental trigger for autoimmune disorders such as Graves' disease, immune thrombotic thrombocytopenia, autoimmune liver diseases, Guillain-Barré syndrome, systemic lupus erythematosus and type 1 diabetes.

CASE
We report a case of diabetic ketoacidosis in a new onset Type 1 diabetes in an elderly female following SARS-CoV-2 vaccination. A 69-year-old female with a history of treated TB abdomen in 2015 with no history of diabetes received her second dose of SARS-CoV-2 vaccination (COMIRNATY) on 21st August 2021. Two weeks following vaccination, she developed osmotic symptoms, reduce appetite and lethargy. Her random blood glucose (RBS) was 41 mmol/L, serum ketone 4.4 mmol/L, pH of 7.29 mmHg, bicarbonate 12.5 mmol/L and serum osmolarity of 298 mOsm/kg. She was treated for DKA with intravenous insulin infusion and hydration with resolution of DKA within 12 hours. Anti-Glutamic Acid Decarboxylase and anti-Islet Cells antibodies were positive with low fasting C-peptide of 102 pmol/L. She was discharged well with basal bolus insulin. Four months later, HbA1c reduced from 15.6% to 7.7% with a random C-peptide of 152 pmol/L.

CONCLUSION
The occurrence of hyperglycaemia crisis following SARS-CoV-2 vaccine in patients with pre-existing diabetes is known but the occurrence of new onset autoimmune diabetes following vaccination is rare. Further studies are needed to better understand the underlying pathogenesis of autoimmune diabetes following SARS-CoV-2 vaccine.