

REVIEW ARTICLE

Obesity management in the Saudi population

Aldubikhi summarizes the population-specific causes and area-specific causes that could have lead to obesity in Saudi Arabia and dietary interventions, exercise, pharmacotherapy, and surgical interventions to manage obesity. This study also throws light on the effect of COVID-19 on obesity and future actions for controlling it. Lack of measures to address obesity can lead to amplifying public health concerns in the coming years. With the increasing upward trend of childhood obesity, Saudi Arabia is expected to face an increased economic burden with an insurmountable effect on the health system. The basic treatment modalities for obesity are lifestyle management, pharmacotherapy, and surgical interventions.

see page 725

ORIGINAL ARTICLES

Autoimmune diseases and their prevalence in Saudi Arabian patients with type 1 diabetes mellitus

Mohammedsaeed and Alghamdi evaluate the prevalence of autoimmune disorders among young and adult populations diagnosed with type 1 diabetes mellitus (T1DM) in Al-Madinah Al-Munawarah, Saudi Arabia, and assess the potential impact of these conditions on other comorbidities. A total of 2258 verified T1DMs were tested. Analyzed hospital and laboratory data. Autoimmune T1DM was investigated clinically and laboratory. Children and adolescents have greater rates of celiac disease than adults of both genders. Adrenal insufficiency was more frequent in adults. Adult males had 28.5% polyglandular autoimmune diseases, and women had 19.7%. Older individuals in the region have been observed to exhibit a greater incidence of adrenal failure and polyglandular autoimmune disorders. Autoimmune diseases that result in nephropathy, CVD, and hypoglycemia are highly prevalent based on biomarker levels.

see page 751

Establishing local diagnostic reference levels for computed tomography examinations using size-specific dose estimates

Alrehily et al establish local DRL (LDRL) for computed tomography (CT) examinations based on size-specific dose estimates (SSDEs), which consider patient size. Data were collected from CT examinations of 30 adult patients at Madinah General Hospital, Al Madinah Al Munawwarah, Saudi Arabia from January and March 2023. The LDRLs of the brain, cervical spine, chest, thoracic spine and kidneys, ureters, and bladder examinations were 118 mGy, 12 mGy, 8 mGy, 17 mGy, and 7 mGy, respectively. A strong correlation was observed between SSDEs and the volume computed tomography dose index ($CTDI_{vol}$) for all examinations except chest scans ($p < 0.05$). Size-specific dose estimates were higher than the $CTDI_{vol}$, with a greater difference for patients with smaller $Deff$ ($p < 0.05$). The use of SSDE has the potential to provide more accurate and relevant data for radiation safety practices; however, widespread adoption of SSDE in new CT scanners is necessary for promoting consistency and standardization methodologies.

see page 761