Scientific papers: Endocrine updates

Updates on the management of Turner syndrome

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Abstract

The latest clinical practice guidelines for Turner syndrome (TS), developed by an international collaboration and discussed at the Aarhus International Turner Syndrome Meeting (2023), focus on a comprehensive, multidisciplinary approach, addressing key aspects such as, puberty and sex hormone treatment, cardiovascular health, growth and development, and reproductive issues. The guideline emphasizes timely referral for fertility preservation and early initiation of low-dose estrogen. A major highlight of the updated guidelines is the refined approach to manage cardiovascular risks, as congenital and acquired heart diseases are prevalent in TS patients. The guidelines also emphasize optimizing growth through the early use of growth hormone therapy and addressing infertility with improved assisted reproductive technologies. Additional updates include recommendations for lifelong monitoring of hormone replacement therapy and managing neurocognitive challenges as well as transitioning from pediatric to adult care. Neurocognitive/neuropsychological evaluations and behavioral/social/emotional screenings be integrated into the care of individuals with TS. An intentional, defined, individualized pathway to transition from pediatric to adult care for adolescents with TS beginning in early adolescence is recommended.*[J Assoc Clin Endocrinol Diabetol Bangladesh, 2024;3(Suppl 1): S19]*

Keywords: Turner syndrome, Growth hormone therapy, Hormone replacement therapy

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Changing nomenclature and the current management of metabolic dysfunction-associated steatotic liver disease

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Abstract

A multi-society Delphi consensus has changed the term 'NAFLD' to 'MASLD' the abbreviation of metabolic dysfunction-associated steatotic liver disease. The new terminology indicates the core pathogenesis of the disease as well as removing the stigma word 'fatty'. The diagnostic criteria have been updated to include metabolic syndrome. MASLD can be diagnosed even in patients taking alcohol. An algorithm with a referral pathway has been created to identify MASH (previously NASH) in the primary care setting including the endocrinology clinic. Weight loss is the most effective treatment for MASLD. Several trials are ongoing to improve both inflammation and fibrosis together. Currently, the only FDA-approved drug for the treatment of MASH is a thyroid receptor agonist beta (THR-β)- resmetirom. The field of MASLD is rapidly evolving. Endocrinologists should keep them updated on this information as the primary specialists for diagnosing MASLD with appropriate referrals. *[J Assoc Clin Endocrinol Diabetol Bangladesh, 2024;3(Suppl 1): S20]*

Keywords: Metabolic dysfunction-associated steatotic liver disease, Metabolic-dysfunction-associated steatohepatitis, Resmetirom

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Semaglutide: A magical response in weight loss journey; Do side effects matter?

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Abstract

Semaglutide is a US FDA-approved drug for the management of type 2 diabetes as well as obesity. One study reported using once-weekly subcutaneous semaglutide, which was associated with 5.9% mean weight loss at 3 months and 10.9% at 6 months. It reduces cardiovascular mortality and slows the progression of diabetic kidney disease. However, side effects are the main barrier to dose optimization. The majority of the side effects are gastrointestinal (GI) origin. A study reported that 40-85% of side effects are GI origin, and most of them are minor and reversible within a few weeks of continuation of treatment. Semaglutide dose interruption occurred due to side effects reported in up to 12% of the patients and permanent cessation of the drug was reported in 1.6%-6.0%. Common GIT side effects are anorexia, nausea, vomiting, diarrhea, constipation, belching, and acid reflux. Increased risk of pancreatitis and cholelithiasis were reported in different studies. Other than GI side effects, renal, neuropsychiatric, and musculoskeletal side effects have also been reported at varying degrees. Careful monitoring of potentially serious side effects with slow dose escalation should be practiced in clinical settings to minimize drug-related complications and get the maximum benefit of the drug. *[J Assoc Clin Endocrinol Diabetol Bangladesh, 2024; 3(Suppl 1): S21]*

Keywords: Semaglutide, Cholelithiasis, Pancreatitis

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Management of dyslipidemia during reproductive years in female

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Abstract

Cardiovascular disease (CVD) is the leading cause of death, particularly among younger women. Improving cardiovascular health in reproductive-aged women is crucial for the well-being of the mother and her offspring. Optimizing dyslipidemia diagnosis and management in women of reproductive potential can play a large role in mitigating CV risk in pregnancy and beyond. The most important way to manage dyslipidemia is to practice a healthful lifestyle throughout the lifespan, including consuming a cardioprotective dietary pattern and physical activity. Pharmacologically, omega-3 fatty acids would be the first line in therapy, with fibrates also being classified as safe after the first trimester. The PCSK9 monoclonal antibodies, alirocumab, and evolocumab, as well as the small interfering RNA drug targeting PCSK9 (inclisiran), have not been evaluated for safety during pregnancy. Bile acid sequestrants are safe to take during pregnancy and lactation. Lipoprotein apheresis may be used for pregnant and lactating women with HoFH with or without ASCVD. A patient-clinician discussion and shared decision-making are essential for determining appropriate lifestyle interventions and pharmacotherapy for women with dyslipidemia. *[J Assoc Clin Endocrinol Diabetol Bangladesh, 2024;3(Suppl 1): S22]*

Keywords: Dyslipidemia, Pregnancy, Statins

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Benefits of vitamin D beyond the musculoskeletal system

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Abstract

Vitamin D is a fat-soluble prohormone that can be taken by dietary supplements or is produced endogenously in reaction to sunshine. Given that vitamin D receptors can be found in the majority of bodily tissues and cells, our growing understanding of vitamin D's functions in humans suggests that it serves a variety of critical functions outside of the musculoskeletal system. To gain insight into the role of vitamin D in diabetes, cardiovascular diseases, malignancies, autoimmune illnesses, infectious diseases, and many other conditions, several observational studies, RCTs, and meta-analyses with systemic reviews were carried out. There is still debate over the advantages of vitamin D despite mounting data linking vitamin D insufficiency to mental and physical illnesses as well as the benefits of vitamin D for maintaining good health and preventing disease. Recently Endocrine Society released its clinical practice guideline regarding the prudent use of vitamin D for the prevention of diseases. *[J Assoc Clin Endocrinol Diabetol Bangladesh, 2024;3(Suppl 1): S23]*

Keywords: Vitamin D, Musculoskeletal system, Vitamin D deficiency

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Medical management of Cushing syndrome: An update

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Abstract

Cushing syndrome is characterized by chronic glucocorticoid excess that leads to multiple co-morbidities that impair quality of life and increase mortality. Pituitary surgery is the first-line therapy in reducing glucocorticoid excess but is non-curative in one-third of patients. Among second-line treatments, medical therapy is gradually gaining importance over pre-existing options of pituitary radiotherapy or re-surgery. Current medical therapy with sub-optimal efficacy and safety profile is not enough to meet the therapeutic demands of Cushing syndrome. Therefore, the availability of newer agents has expanded significantly over the last 10 years. The novel agents in phase 3 clinical trials, such as osilodrostat and levoketoconazole have shown promising effects in regards to safety and efficacy. R-roscovitine, retinoic acid, epidermal growth factor receptor inhibitors, and somatostatin-dopamine chimeric compounds are being studied for future clinical utility. *[J Assoc Clin Endocrinol Diabetol Bangladesh, 2024;3(Suppl 1): S24]*

Keywords: Cushing syndrome, Osilodrostat, Levoketoconazole

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