

caregivers and healthcare providers to develop a tailored plan based on individual needs and triggers [1, 2].

Conclusions

Cyanotic and pallid breath-holding spells are common benign conditions in children, with cyanotic spells characterized by bluish skin discoloration due to decreased oxygen levels and pallid spells associated with transient decreased blood flow to the brain; these episodes vary in duration, frequency, associated symptoms, seizure-like activity, postictal symptoms, risk factors, age of onset, emotional triggers, diagnosis, treatment, and prevention strategies, with cyanotic spells often lasting seconds to minutes and pallid spells potentially having a longer duration, occurring more frequently in children aged 6 months to 2 years and triggered by emotional factors such as frustration or sudden fright, while a family history of similar episodes may suggest a genetic predisposition, diagnosis is typically based on clinical evaluation and observation, and management involves reassurance, trigger management, and caregiver education to ensure a safe and supportive environment, highlighting the importance of tailored prevention plans focusing on promoting healthy coping mechanisms, maintaining routine, teaching relaxation techniques, and fostering open communication with healthcare providers to effectively address the individual needs and triggers of each child experiencing these spells.

LITERATURE

1. Breath-Holding Spells in Pediatrics: A Narrative Review of the Current Evidence / A. K. C. Leung [et al.] // Current pediatric reviews. – 2019 – №15(1). – P. 22–29.
2. Flodine TE, Shah M, Mendez MD. Breath-Holding Spells. [Updated 2023 Aug 17]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing. – 2024.
3. *Goldman, R. D.* Breath-holding spells in infants. Canadian family physician / R. D. Goldman // Medecin de famillecanadien. – 2019. – № 61(2). – P. 149–150.

УДК 616-053.2

S. K. Rodrigo, S. A. N. L Dias

Scientific Guide: Senior Lecturer L. S. Sergeichik

Educational Establishment

“Gomel State Medical University”

Gomel, Republic of Belarus

MEDICATION-INDUCED WEIGHT GAIN AND MANAGEMENT IN PEDIATRICS

Introduction

Medication related weight gain is a common yet an overlooked issue among pediatric patients. Excessive weight gain can lead to several long-term health issues such as obesity, diabetes, cardiovascular diseases & mental health related issues.

Goal

Being proactive in addressing medication related weight gain in pediatric patients in order to promote healthy growth & development both physically and mentally to prevent short- & long-term health complications.

Material and methods of research

Relevant data and statistics were referred from Obesity Medicine Association (OMA), Obesity Action Coalition (OAC), American Academy of Child & Adolescent Psychiatry and also from one-on-one discussions with several patients from Pediatrics Department No. 2 (Cardiology) in Gomel Regional Children’s Clinical Hospital while on duty.

The results of the research and their discussion

Table 1 – Medications that will cause an increase in weight (1,2)

DRUG CLASS	EXAMPLES
Corticosteroids	Prednisolone, Hydrocortisone
Anti-Diabetes Medication	Injectable Insulin, Sulfonylureas
Anti-Depressants	Mirtazapine, Paroxetine
Beta Blockers	Atenolol, Propranolol
Antihistamines	Cyproheptadine, Cetirizine
Antiepileptic drugs	Valproate, Carbamazepine
Antipsychotic	Olanzapine, Clozapine

Pharmacotherapy administered for any clinical indication can produce known, or unknown/ unintended side effects. Potential effects on weight status are weight promoting, weight neutral, and weight sparing. Ideally, clinicians will prescribe weight neutral medications and monitor for the desired effect to the prescribed condition (3). In a clinical setting Corticosteroid have been the drug that is mostly associated with weight gain as it is used as a primary long-term managing drug of different diseases in different systems. For an example in Rheumatology for Juvenile Arteritis, Pulmonology for Bronchial Asthma, Autoimmunology for SLE and list goes on and on. As we all can agree drugs that are mentioned in Table 1 are essential to manage certain diseases as there are no alternatives therefore let’s take a look at how to manage and optimize our pharmacotherapy in order to help our patients not go into a weight gaining vicious cycle.

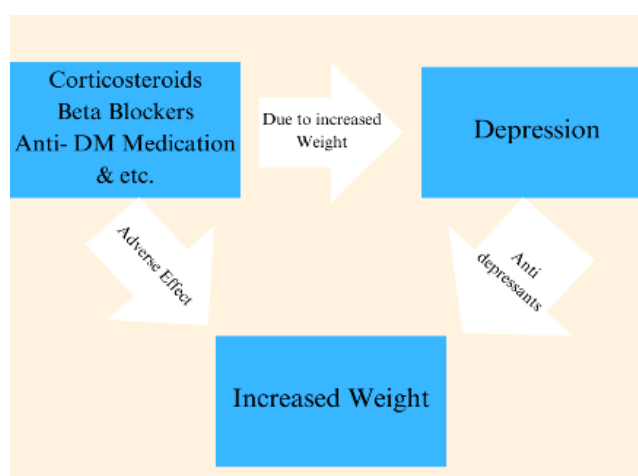


Figure 1 – Medication Induced Weight Gaining Vicious Cycle

Above medications can induce weight gain either by creating a certain biochemical disbalance in the body or simply just by increasing the appetite nevertheless it is important to educate our patient about these facts. First consideration in order to minimize the weight gain should be diet and physical activities, in the management plan of patients who have been prescribed for long term with medications that are known to increase weight it is better to have an input of nutritionist and encourage the child to engage in sports and other physical activities. Then as physicians we should not broadly prescribe higher dosages of these medications, instead it is better to understand the minimal effective dose of these medications if there is no alternative. If the child is above a certain age and in case of other steps are ineffective of managing weight there are certain medications that can help with managing weight such

as Phentermine (for children above 12 years), Liraglutide (between 12–17 years) & Orlistat (12 years & older). Once again keep in mind these medications should only be prescribed if weight management by diet and physical activity is ineffective and if the gaining weight poses a risk of, developing health issues and also the side effects of these medications also should be kept in mind. In critical cases where BMI \geq 120% of the 95th percentile with an obesity driven disease or BMI \geq 140% of the 95th percentile regardless of the comorbidities Metabolic and Bariatric Surgery (MBS) can be considered (3). Just like the physical aspect it is also essential to look after child's psychological well-being parents and close acquaintances should be asked to monitor child in that aspect and counseling should be carried out if any sort of psychological issues starts to occur.

Conclusions

Medication induced weight gain should not be overlooked and in order to children to reach their full potential in physically, mentally and socially.

LITERATURE

1. Kimbely Goad (2022) 8 Common Medications that can cause weight gain. <https://www.aarp.org/health/drugs-supplements/info-2022/medication-weight-gain.html>
2. AACAP (2017) Weight gain from Medication: Prevention and Management https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/Preventing-and-Managing-Medication-Related-Weight-094.aspx
3. Medication-induced weight gain and advanced therapies for the child with overweight and obesity: An Obesity Medicine Association (OMA) / S. Cuda [et al.] // Clinical Practice Statement. – 2022, Obesity Pillars, Vol. 4.

УДК 618.3:616.131-007.271-008.331.1-053.31

Yashaswini Salvi, Ankit Gupta

Scientific supervisor: Senior lecturer of the Department of Pediatrics L. S. Sergeichik

*Educational Establishment
“Gomel State Medical University”
Gomel, Republic of Belarus*

EXPLORING THE ROLE OF MATERNAL HEALTH AND COMPLICATIONS IN THE DEVELOPMENT OF PERSISTENT PULMONARY HYPERTENSION IN NEWBORNS

Introduction

Persistent pulmonary hypertension of the newborn (PPHN) is a complex condition that can be influenced by both maternal and fetal health factors. It occurs when the fetal circulation fails to transition to normal newborn circulation after birth characterized by high blood pressure in the blood vessels of the lungs, as blood vessels in the lungs do not properly relax after birth. This leads to high blood pressure in the lungs, which can result in inadequate oxygen supply to the body. It can lead to respiratory distress and potential long-term complications if not managed promptly. It can lead to significant morbidity and mortality in infants. Here are some key points to consider:

1. Maternal health factors:

– Maternal conditions: Certain maternal health conditions can increase the risk of PPHN in newborns. These include diabetes, hypertension, obesity, thyroid disorders, and certain autoimmune diseases.

– Medications: Some medications taken during pregnancy, such as selective serotonin reuptake inhibitors (SSRIs) and nonsteroidal anti-inflammatory drugs (NSAIDs), have been associated with an increased risk of PPHN.