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VISION

To emerge as one of the premier pharmacy colleges in the country and produce pharmacy professional of global Standards. MISSION

- To deliver quality academic programs in Pharmacy and empower the students to meet industrial standards.
- To build student community with high ethical standards to undertake R&D in thrust areas of national and international standards.
- To extend viable outreach programs for the health care need of the society.

• To develop industry institute interaction and foster entrepreneurial spirit among the gradutes

BIPOLAR DISORDER

D.DHARANI SAI K.ROJA Pharm D IInd Year



Bipolar disorder: A mental health condition that affects mood and behavior

Bipolar disorder, also known as manic depression, is a mental health condition that causes extreme mood swings that include emotional highs (mania or hypomania) and lows (depression). These mood swings can affect how a person thinks, feels, and acts, and can interfere with their daily life.

Bipolar disorder is not a rare condition. According to the World Health Organization, it affects about 1-3% of the global population¹. It usually starts in late adolescence or early adulthood, but it can also occur in children and older adults. It affects men and women equally, and it can run in families.

The exact causes of bipolar disorder are not fully understood, but they are likely to involve a combination of genetic and environmental factors. Some of the risk factors that may contribute to the development of bipolar disorder include:

- Having a family history of bipolar disorder or other mental illnesses
- Experiencing childhood abuse, trauma, or stress
- Having a brain injury or infection that affects the brain
- Using drugs or alcohol that alter the brain chemistry
- Having hormonal imbalances or thyroid problems

Bipolar disorder is classified into different types, depending on the severity and frequency of the mood episodes. The main types are:

Bipolar I disorder: This type is characterized by at least one manic episode, which is a period of abnormally elevated mood that lasts for at least a week and may cause psychosis (a loss of touch with reality). A person with bipolar I disorder may also have depressive episodes, which are periods of low mood that last for at least two weeks, or hypomanic episodes, which are less severe than manic episodes and last for at least four days.

Bipolar II disorder: This type is characterized by at least one major depressive episode and at least one hypomanic episode, but no manic episodes. A person with bipolar II disorder may experience more frequent and longer depressive episodes than a person with bipolar I disorder.

Cyclothymic disorder: This type is characterized by many periods of mild depression and mild hypomania that last for at least two years in adults or one year in children and adolescents. The symptoms are not severe enough to meet the criteria for a major depressive episode or a hypomanic episode, but they cause significant distress and impairment in functioning.

- Other specified and unspecified bipolar and related disorders: These types are used when the symptoms do not fit into any of the above categories, but still cause significant problems for the person.

The symptoms of bipolar disorder vary from person to person, and they may change over time. Some of the common symptoms of bipolar disorder are:

Manic or hypomanic symptoms: These include feeling very happy, excited, energetic, confident, or irritable; talking very fast or loudly; having racing thoughts or ideas; being easily distracted or restless; having a reduced need for sleep; being more impulsive, reckless, or aggressive; having an increased interest in sex, spending, or risky activities; having grandiose or unrealistic plans or beliefs; or experiencing hallucinations or delusions.

Depressive symptoms: These include feeling very sad, hopeless, guilty, or worthless; losing interest or pleasure in things that used to be enjoyable; having trouble concentrating, remembering, or making decisions; feeling tired or sluggish; having changes in appetite or weight; sleeping too much or too little; having physical aches or pains; or having thoughts of death or suicide.

The diagnosis of bipolar disorder is based on the person's self-reported symptoms, the observation of their behavior by others, and the ruling out of other possible causes. There is no specific test or scan that can confirm bipolar disorder, but sometimes blood tests, urine tests, or brain imaging may be done to check for other medical conditions that may affect the mood.

The treatment of bipolar disorder aims to stabilize the mood, reduce the severity and frequency of the episodes, and improve the quality of life of the person. The treatment usually involves a combination of medication and psychotherapy, as well as lifestyle changes and support from family and friends.

The medication for bipolar disorder may include:

Mood stabilizers: These are drugs that help control the mood swings and prevent manic or depressive episodes. The most commonly used mood stabilizer is lithium, which has been shown to reduce the risk of suicide in people with bipolar disorder. Other mood stabilizers include anticonvulsants, such as valproate, carbamazepine, and lamotrigine, and some antipsychotics, such as olanzapine, quetiapine, and lurasidone.

Antidepressants: These are drugs that help treat the depressive symptoms of bipolar disorder. However, they may also trigger or worsen manic or hypomanic symptoms in some people, so they are usually prescribed with a mood stabilizer or an antipsychotic. Some of the commonly used antidepressants for bipolar disorder are selective serotonin reuptake inhibitors (SSRIs), such as sertraline, fluoxetine, and citalopram, and serotonin and norepinephrine reuptake inhibitors (SNRIs), such as desvenlafaxine, duloxetine, levomilnacipran, and venlafaxine.

Antianxiety drugs: These are drugs that help reduce anxiety, agitation, or insomnia that may accompany bipolar disorder. They are usually used for short-term relief, as they may be addictive or cause withdrawal symptoms if stopped abruptly. Some of the commonly used antianxiety drugs for bipolar disorder are benzodiazepines, such as alprazolam, clonazepam, diazepam, and lorazepam.

The psychotherapy for bipolar disorder may include:

Cognitive behavioral therapy (CBT): This is a type of therapy that helps the person identify and challenge the negative thoughts and beliefs that may contribute to their mood swings and behavior. It also teaches the person coping skills and strategies to manage their emotions and stress.

Interpersonal and social rhythm therapy (IPSRT): This is a type of therapy that focuses on the relationship between the person's mood and their daily routines, such as sleep, diet, exercise, and social interactions. It helps the person establish and maintain a regular and healthy lifestyle that can prevent mood episodes and improve their functioning. **Family-focused therapy (FFT):** This is a type of therapy that involves the person's family members or close friends in the treatment process. It helps the person and their loved ones understand bipolar disorder, communicate better, resolve conflicts, and support each other. Psychoeducation: This is a type of therapy that provides the person and their family with information and education about bipolar disorder, its causes, symptoms, treatment, and prognosis. It helps the person and their family cope with the condition and adhere to the treatment plan.

The lifestyle changes for bipolar disorder may include:

Keeping a mood diary: This is a tool that helps the person track their mood, symptoms, medication, and other factors that may affect their mood, such as stress, sleep, or alcohol. It helps the person recognize their mood patterns, triggers, and warning signs, and take action accordingly.

Following a regular schedule: This is a strategy that helps the person maintain a consistent and predictable routine for their sleep, meals, activities, and medication. It helps the person avoid disruptions that may destabilize their mood and cause episodes.

Avoiding drugs and alcohol: This is a recommendation that helps the person avoid substances that may worsen their mood swings, interfere with their medication, or increase their risk of suicide or other problems.

Exercising regularly: This is a habit that helps the person improve their physical and mental health, as exercise can boost their mood, energy, self-esteem, and sleep quality. It can also reduce their stress, anxiety, and depression.

Seeking support: This is a step that helps the person connect with others who can provide them with emotional, practical, or professional help. This may include joining a support group, reaching out to friends or family, or contacting a helpline or a therapist.

Bipolar disorder is a serious but treatable condition that can affect anyone. With proper diagnosis, treatment, and support, people with bipolar disorder can lead fulfilling and productive lives. If you or someone you know may have bipolar disorder, do not hesitate to seek help from a qualified mental health professional. There is hope and help available. Source:

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Understanding the Risks: How Bodybuilding Supplements Can Contribute to IgA Nephropathy and Kidney Damage

S. KUMARAVEL Pharm D IIIrd year

What is IgA nephropathy?

IgA nephropathy, also called Berger's disease, happens when a certain kind of antibody, called immunoglobulin A (IgA), gathers in the kidneys and causes swelling. This swelling can harm the kidney tissues and make it hard for them to clean out waste and water from the blood. If this continues for a long time, it can turn into chronic kidney disease, which might lead to kidney failure, needing treatments like dialysis or a kidney transplant. Although the precise cause of IgA nephropathy is unknown, potential causes include genetics, infections, immune system issues, and environmental factors. While some individuals with IgA nephropathy may not experience any symptoms, others might experience symptoms such as high blood pressure, swelling, fatigue, blood or foam in the urine, or kidney pain.

How bodybuilder taking supplements develops IgA nephropathy?

Bodybuilders often adopt a regimen of heightened protein consumption to facilitate muscle growth, potentially placing strain on the kidneys. The kidneys, responsible for filtering waste from the blood, face increased workloads due to elevated protein-derived waste products. This heightened demand could stress renal function over time, especially when protein intake exceeds the body's capacity for efficient filtration.

Moreover, the quality of supplements is paramount. Low-quality supplements might harbour contaminants that can initiate immune responses or inflict direct damage on kidney tissues. These contaminants may exacerbate the stress on the kidneys and potentially contribute to the development or progression of kidney conditions such as IgA nephropathy. The uncertainty lies in the varied nature of contaminants and the specific immune responses they may elicit, making it challenging to pinpoint precise cause-and-effect relationships.

Creatine supplements, widely embraced in bodybuilding, can pose additional challenges. Dehydration, a potential side effect of creatine use, places an extra burden on the kidneys. Creatine supplements, widely embraced in bodybuilding, can pose additional challenges. Dehydration, a potential side effect of creatine use, places an extra burden on the kidneys. The kidneys require sufficient fluid intake to function optimally, and dehydration can intensify their workload, potentially impacting overall kidney health.

While these factors present plausible mechanisms for the hypothetical contribution of supplement use to IgA nephropathy, it's vital to recognize that individual responses can vary.



The intricate interplay of genetic predispositions, environmental factors, and other influences necessitates caution and personalized health assessments for those engaged in intense bodybuilding practices.

How do supplements impact the kidneys and IgA nephropathy? Certain supplements commonly used by bodybuilders may have adverse effects on the kidneys and exacerbate IgA nephropathy. These supplements include:

Protein supplements: Protein supplements, vital for muscle growth and repair, pose risks when consumed excessively. The kidneys play a crucial role in processing protein waste, and an overload from high protein intake can strain them, elevating waste products in the bloodstream. This strain may exacerbate kidney dysfunction and contribute to the progression of IgA nephropathy. Furthermore, certain protein supplements may harbor contaminants or additives that, upon ingestion, can potentially damage renal tissues. Additionally, some supplements may incite an immune response, leading to the deposition of immunoglobulin A (IgA) in the kidneys. This immune reaction can contribute to the development or worsening of IgA nephropathy, a condition characterized by IgA deposits in the kidney, potentially impairing renal function and exacerbating the overall health risks associated with excessive protein supplementation.

Creatine supplements: Creatine, essential for high-intensity exercise energy, becomes concerning in supplement form due to potential kidney-related issues. Creatine supplements can increase creatinine levels, a waste product that kidneys filter. Elevated creatinine levels serve as indicators of potential kidney damage and compromised function. Moreover, creatine supplements may interact negatively with medications, posing risks to renal health. Additionally, these supplements have a dehydrating effect, potentially amplifying kidney stress. Dehydration can impact the kidneys' ability to effectively filter and eliminate waste. Steroid supplements: Steroid supplements, despite their muscle-enhancing benefits, carry significant risks for kidney health and can worsen IgA nephropathy. The synthetic hormones in steroids may lead to high blood pressure, causing damage to blood vessels and kidneys. Elevated protein intake and increased creatinine levels resulting from steroid use can overload the kidneys, exacerbating dysfunction. Furthermore, steroids may compromise the immune system, heightening vulnerability to infections and autoimmune reactions. This immunological impact raises the risk of triggering or exacerbating IgA nephropathy, a condition characterized by immunoglobulin A deposits in the kidneys.

Oat supplements: Oat supplements, known for their soluble fiber content, can positively impact kidney health by reducing cholesterol and blood sugar levels. The soluble fiber in oats supports cardiovascular health and glycemic control, indirectly benefiting the kidneys. However, caution is warranted as some oat supplements may contain gluten, a protein triggering allergic reactions in susceptible individuals. Gluten can stimulate the immune system, potentially leading to increased production of immunoglobulin A (IgA). Excess IgA may deposit in the kidneys, contributing to the development or exacerbation of IgA nephropathy.

Individuals with gluten sensitivity or a history of IgA nephropathy should exercise prudence when considering oat supplements, opting for gluten-free alternatives to mitigate the risk of immune system activation and potential adverse effects on kidney health.

How can you prevent or manage IgA nephropathy as a bodybuilder?

Preventing or managing IgA nephropathy as a bodybuilder requires a comprehensive approach that encompasses dietary choices, hydration, exercise, lifestyle changes, and adherence to medical advice. Here are some guidelines to help you prevent or manage IgA nephropathy.

Consult with the doctor: Before making any changes to your lifestyle or taking supplements, consult with your doctor. They can provide personalized advice based on your health status and the severity of IgA nephropathy.

Balanced Diet: Follow a balanced diet that is low in protein, salt, and cholesterol. Prioritize fruits, vegetables, and whole grains to maintain a healthy weight and reduce inflammation. Hydration: Drink plenty of water to stay hydrated and help flush out toxins from your body. Avoid excessive consumption of alcohol, caffeine, and sugary drinks, as they can contribute to dehydration.

Exercise in Moderation: Engage in regular exercise to improve blood circulation, muscle strength, and immune function. Avoid overexertion and stay mindful of hydration during workouts to prevent dehydration.

Manage Stress: Incorporate stress management techniques, such as meditation, yoga, or deep breathing exercises, to promote overall well-being.

Regular Check-ups: Schedule regular check-ups with your healthcare provider to monitor kidney function, blood pressure, and IgA levels. Report any unusual symptoms promptly to address potential issues early.

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AKEEGA FOR TREATMENT OF PROSTATE CANCER G.SRAVANI D.M.GNANA SUDHA

Pharm D Ist year



Approved date : August 11,2023 Dosage : Tablets Brand Name : Zytiga . Adult : 200 mg/ 1000 mg Generic name : Niraparib, Abirateron acetate . > = 12 years : 100 mg/ 500 mg Class : Anti androgens, Anti neoplastic, PARP inhibitors . < 12 years : 50 mg/ 500mg Manufacturing Company : Jassen Biotech, Inc Dosage Form : Tablets Indications: Molecular Formula : C19H20N40



Dosage Form : Tablets **Storage :** Store between room temp 680 F to 770 F **Dosage :**

- Adult: 200 mg/ 1000 mg
- > = 12 years : 100 mg/ 500 mg
- < 12 years : 50 mg/ 500mg

Mechanism of Action : Niraparib is an inhibitor of PARP enzymes, including PARP-1 and PARP-2 ,(Poly ADP-ribose polymerase) that plays a major role in DNA repair. The combination of Niraparib and abiraterone acetate offers a dual action approach to target tumours with BRCA1/2 mutations in mcrpc.

PHARMACOKINETICS Adverse drug reactions :

Absorption : For optimal absorption, Akeega tablets must be swallowed whole with water, they must not be broken/crushed/chewed. Bio-availability of Akeega-73%

Maximum concentration {plasma}: 831 ng/ml

Distribution : Niraparib and Abirateron acetate both can crosses the Blood Brain Barrier to some extent i.e 50%

Vd : Niraparib is 83% bound to human plasma proteins,

albumin and alpha-1 acid glycoprotein

Metabolism : Niraparib is by carboxylesterases ,Abiraterone acetate is rapidly converted invivo to abirateron. Abirateron acetate undergoes metabolism including sulphation, hydroxylation and oxidation primarly in LIVER via entero hepatic circulation through CYP3A4

Elimination : t 1/2 niraparib - 62 hours

abiraterone acetate - 20 hours

Excretion : Niraparib - urine - 48% ; feces - 39 %

Abiraterone acetate - urine - 5% ; feces - 88

Adverse Drug Reaction :

Anaemia {4.4%}, Pneumonia {3.5%}

Blood time :1.5 hours- Abiraterone ;3 hours - Niraparib Hemorrhage {3.5%},Musclo skeletal pain{ 44% } Insomnia {12%},Edema{17%}, {>10%} including fatigue, decreased platelets,covid-19,headache.

Contraindications: Hypersensitivity crisis [or] other severe cardiovascular adverse reactions. Hepatotoxicity in patients. Akeega plus prednisone or prednisolone is contraindicated in combination with Ra-223 treatment.

DEPARTMENTAL ACTIVITIES IN DECEMBER - 2023 PERFECT CLICKS



Awareness Programme on "World AIDS Day 2023".



Fresher's Orientation programme



Dr. M. Niranjan Babu has received "Best Principal Award 2023" & Prof. K. Saravanakumar has received "Best Teacher Award 2023" under JNTUA Ananthapuramu



Ist Graduation Day Ceremony for the M.Pharmacy 2020 admitted batch students.