A focus on abnormal uterine bleeding

Prof Dr Hamida Begum

By the age of 10-14 years, when a girl gradually becomes an adolescent, various physical and mental changes take place. One of the most important manifestations of these changes is 'menarche' or starting of menstruation. Usually, menstruation takes place for 3-7 days and the amount of bleeding varies anywhere from 30-80 ml. But this menstruation can have various aberrations from normal when it occurs irregularly or multiple times in a single month and the amount of bleeding varies from scanty to very heavy. When no demonstrable or definite organic cause of this abnormal bleeding is found, it is called dysfunctional or abnormal uterine bleeding (DUB or AUB).

For menses to occur regularly, some external and internal factors are intimately related. Among external factors, body weight, nutritional status and climate play a dominant role. Among internal, there is an intimate and rhythmic balance between secretions of different hormones from endocrine glands such as from the ovary, adrenal and thyroid glands. Abnormal uterine bleeding is categorised into 3 types.

Puberty menorrhagia: This may persist once it started for 3-6 months with heavy amounts of bleeding, putting girls and



their parents under tremendous pressure. Sometimes excess or continuous blood loss leads to absenteeism in educational institutions and workplaces or anaemic heart failure leading to hospitalisation for frequent blood transfusions. Most of the time their body build is either skinny or too obese with a high body mass index (BMI).

Reproductive age: These groups of women either suffer from cyclical heavy bleeding or periods every 10-12 days interval (polymenorrhoea or

polymenorrhagia) or small amount of bleeding throughout the whole month (metrotaxis).

Premenopausal menorrhagia: Before established menopause, these groups of women with an age range of 45-50 years suffer from excess bleeding most of the time

Normally there is an intricate system of balance between blood supply and stoppage of bleeding in the uterus. 2 types of prostaglandins are playing together to maintain haemostasis as thromboxane causes vasoconstriction and platelet

aggregation whereas the reverse is done by prostacyclin. Whenever there is an imbalance between these 2 types of prostaglandins, which may occur in case of sorrows, anxiety, any kind of stress, sexual disharmony of a couple or abnormal secretions from adrenal or thyroids can lead to abnormal uterine bleeding.

Appropriate history, proper examination and relevant investigations to rule out known causes are paramount to diagnose a case of AUB. Relevant investigations may include complete blood count,

thyroid function tests and ultrasonography to exclude tumours of the uterus or ovary and to see the thickness of the inner lining of the uterus (endometrium).

The treatment for AUB depends on a few factors. Agerelated appropriate counselling to a greater extent is needed to get relief from anxiety, tension, mood fluctuation and sexual dissatisfactions. Those who are obese need to lose weight. Underweight women will need a nutrition-rich balanced diet. Anaemic individuals need their anaemia corrected.

Some medications like Nonsteroidal anti-inflammatory drugs (NSAID) or antifibrinolytics may prove to be beneficial. Combined oral contraceptives as prescribed by a physician may bring comfort to the patient. Hysteroscopy can be done for both diagnosis and treatment. When different medications can not relieve a patient of her symptoms, they may require surgical intervention.

Abnormal uterine bleeding is common and is rarely a reason to be worried. But if one experiences other symptoms in addition to irregular bleeding, she must consult with a doctor as soon as possible.

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DISEASE FACTS

What is sarcopenia?

Dr Golam Nabi

Many ageing people are facing thinning out of their arms and thighs including hip muscles along with a bulging belly, and they look like an



orange on a stick. Medically it is called sarcopenia. Sarcopenia is the loss of both muscle mass and function that occurs with advancing age. It is associated with multiple adverse outcomes, including frailty, disability and death. Older age,

female gender and muscle disuse caused by low

levels of physical activity or immobility is a well-

defined risk factor, less use or no use of muscle result in a decrease in the size of muscle fibres and

their total number.

Age related oxidative damage, low-grade chronic inflammation, nutritional factors, changes in the hormonal system are all responsible for the decrease in the size and number of muscle fibres. Sometimes sarcopenia is associated with coexisting diseases like diabetes, muscle diseases (myopathy), thyroid problems, low protein intake, prolonged fastings and overzealous dieting.

Anthropometric measures such as midarm circumference and skinfold thickness can help diagnose sarcopenia. Dual-energy x-ray absorptiometry (DEXA Scanning) can also be done. CT scan and MRI are gold standards for estimating muscle mass

You can prevent sarcopenia by regular physical exercise. Exercise has an impact on both cardiovascular fitness and increasing muscle mass and promoting muscle protein synthesis. Treatment to lower ammonia, hormonal treatment (testosterone), micronutrient supplementation including Vitamin D can also help prevent sarcopenia. Myostatin antagonists have been proven to increased muscle mass. Furthermore, the effect of behavioural and psychological support from the family is also important.

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HEALT H bulletin



Tai chi helps the waistline a little

Tai chi is the slow-motion exercise sometimes called "meditation in motion." Tai chi is popular for its dignified pace and low impact, but its claimed medical benefits have been difficult to pin down. In this assessor-blinded, three-way randomised trial, researchers compared regular tai chi practice, standard aerobic exercise, and usual care for reducing central obesity among adults older than 50.

The participants were mostly women, mean age was early 60s, mean body-mass index (BMI) was 25.6 kg/m2, and mean waist circumference was about 92 cm. About half of participants had dyslipidemia or hypertension.

After 38 weeks of thrice-weekly 1-hour tai chi or aerobic-exercise sessions, mean waist circumference in both groups had declined by 1 to 2 cm. In contrast, that measurement in a control group had increased by almost 3 cm. Mean values for weight, BMI, HDL cholesterol levels, and triglyceride levels were all slightly better in the tai chi group than in controls and were indistinguishable from those metrics in the aerobic-exercise group. At week 38, 10% to 15% of each exercise group no longer had formal diagnoses of central obesity, in contrast to 4% of the control group.

This rigorous study suggests that the modest metabolic benefits of regular tai chi practice approximate those of light aerobic exercise.

Magnesium: the astounding mineral

Dr Tauhida Rahman Ereen

Magnesium is an essential mineral in all living organisms, with 99% of the mineral residing within the tissue cells. It is a nutrient that the body needs to stay healthy. Over the past few years, I have learnt a lot about precious minerals for total wellness. I would like to share with you the importance of the marvellous mineral magnesium.

How does magnesium improve health function? Magnesium is an essential macromineral that helps the body inside and out because of its involvement in many significant processes within tissues throughout the human body. Naturally occurring alkaline mineral magnesium may play a role in nerve, muscle function and more. Adequate magnesium may also play a part in keeping our bones strong and staying energised.

Magnesium promotes vitamin D metabolism. It is a key macromineral for boosting immunity. It also contributes to constipation relief. Amazing mineral magnesium may prevent and manage hypertension and stabilise blood pressure. Magnesium deficiency may worsen insulinresistant diabetes. Inflammation fighter magnesium helps with relaxing and opening your airways and relieves asthma symptoms. Some research has shown magnesium can reduce Premenstrual syndrome (PMS) symptoms. Doctors prescribe magnesium supplements for migraine sufferers, as it is a potential remedy for headaches.



How does magnesium affect the skin? Experts say that magnesium can be a big boost to your antiageing regime. it helps to repair, rejuvenate and regenerate cells. Additionally, this major mineral lessens stress and anxiety by reducing the stress hormone cortisol. One review concluded that supplementing with magnesium can improve sleep quality. A good night's sleep promotes the production of collagen and elastin in your skin. Miracle mineral magnesium is a fitness performance enhancer. Foods high in magnesium: Diets high in magnesium-rich foods appear to be protective against chronic disease, and low magnesium status is increasingly being linked to disease risk and impaired disease management. Men should aim for at least 400-420 mg and while women only need 310-320 mg per day. Add magnesium-rich food to your diet

and you will be amazed by what happens next to your body and mind. Best foods with magnesium to enhance your well-being are whole wheat bread, brown rice, oatmeal, dark green vegetables, spinach, broccoli, cabbage, banana, sweet potato with skin, avocado, raspberries, low-fat yoghurt, almonds and beans. Supplementing is an effective way to meet your magnesium demand, especially if you are magnesium deficient.

After decades of research, it has become increasingly evident that magnesium, the fourth most abundant mineral in the human body, is absolutely essential for regulating hundreds of biochemical processes and several physiological systems that maintain metabolic and cardiovascular health. So do not ignore this vital mineral and enhance your healthy lifestyle with magnesium.

Carotenaemia: does the skin tell us a story?

PROF M KARIM KHAN

A couple of weeks ago I saw two patients having similar problems. Both the patients were around two years old, had deep yellow colouration of palms and soles. There were no other complaints. Their parents thought that their baby has been suffering from jaundice. On examination other than deep yellow colouration of palms and soles, there was no yellow coloration of eyes but urine was a bit more yellow. Their appetite was good and both of them were playful. Their livers were not enlarged, no itching and other findings were normal.

Feeding history revealed that both the mother used to give carrots and pumpkins every day in their food. Carrots and pumpkins contain carotenoid, excess consumption of which developed this deep yellow colour of the palms and soles of their child. This condition is called carotenaemia.

Foods high in carotene are carrots, pumpkins, sweet potatoes, egg yolks and other orange-coloured foods. Carotenaemia is a harmless condition in which the palms and soles become deep yellow due to excess consumption of carotene-containing foods regularly.

The treatment for this condition is very simple. Just withdraw carotene-containing food for three to four weeks. The yellow discolouration will gradually disappear and no medication is needed.

Excess of anything is not good, rather it creates problems. Thus avoid excess consumption of any food whatever it may be.

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