

MEDITIME

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'We can. I can.'

WORLD CANCER DAY

4th Feb 2018

**Cancer Prevention
in Our Hands**

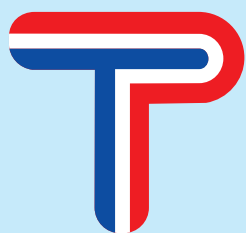
क्यान्सर रोगबारे थाहा
पाउनु पर्ने कुराहरू

**Bipolar
Disorder**



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A Medical Bulletin from TIME Pharmaceuticals (P.) Ltd.

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Editorial



Cancer is the second leading cause of death globally. Every year, it is believed that more than 14 million new cases of cancer are reported whereas 8.8 million people die from cancer worldwide. Approximately, 70% of deaths occur in developing and under developed countries due to cancer. In Nepal, 30,000 new cases reported every year whereas 14000 deaths were reported in a year due to cancer (2014 WHO data). Around one third of deaths from cancer are due to 5 leading behavioral and dietary risks: high body mass index, low fruit and vegetable intake, lack of physical activity, tobacco use and alcohol use. As per WHO data, worldwide common causes of cancers are in lung, liver, colorectal, stomach and breasts. Four common cases of cancer seen in Nepal are lung cancer, breast cancer, cervix and abdomen.

To raise the awareness and work to make it a global health priority, World Cancer Day is marked on 4th February of every year. Since this disease brings big impact in the quality of life as well as economic burden, it is a responsibility of all people to make awareness about reducing the incidence of this disease. It not only creates economic burden to patient but also to whole Nation as the medicines and laboratory facilities need to be imported. So, I request all to join hands in creating awareness about early diagnosis as well as prevention of cancer.

In this issue, we are supported with articles related to cancer disease along with other articles like bipolar disorder, hemophilia, glomerulonephritis, vascular disease, atopic dermatitis and vitamin D. We feel honor to share the information from our valued doctors with our readers. I thankfully acknowledge all medical fraternities for your continuous support to our MEDITIME and wish similar support with valuable feedback and suggestion for improvement.

With Best Regards,

Sudarshan Lal Shrestha
Editor in Chief

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Family Meals Serve Up Better Behaved Kids

Children whose families regularly eat meals together tend to have better social skills and fitness levels, researchers report. Family meals yield multiple physical and mental health benefits, according to the long-term Canadian study.

"The presence of parents during mealtimes likely provides young children with firsthand social interaction, discussions of social issues and day-to-day concerns," explained study author Linda Pagani, a professor of psycho education at the University of Montreal.



At the family table, kids are learning prosocial interactions in a familiar and emotionally secure setting, added Pagani. "Experiencing positive forms of communication may likely help the child engage in better communication skills with people outside of the family unit," she said.

The researchers used data which followed children from the age of 5 months. The kids were born in 1997 and 1998, and parents started reporting on family meals at age 6. At age 10, information on the children's lifestyle habits and their well-being was provided by parents, teachers and the youngsters themselves.

Compared to children who did not have regular family meals at age 6, those who did had higher levels of fitness, lower soft-drink consumption and more social skills at age 10, the researchers found. They also were less likely to have behavioral problems.

"Our findings suggest that family meals are not solely markers of home environment quality, but are also easy targets for parent education about improving children's well-being," Pagani said.

Prostate Cancer Symptoms Aren't Always Obvious

Although about 1 in 7 men will be eventually be diagnosed with prostate cancer in his lifetime, the warning signs of the disease are often vague and may be confused with other conditions.

Prostate cancer can be serious but it's often not fatal. Men should talk to their doctor about the risks and benefits of getting screened for the disease, advised Dr. Alexander Kutikov, chief of the division of urologic oncology at Fox Chase in Philadelphia.

Symptoms of prostate cancer may include: Trouble starting to urinate, Weak or interrupted flow of urine, Urinating more often, particularly during the night, Trouble emptying the bladder, Pain or burning during urination, Bloody urine or semen, Painful ejaculation, Chronic pain in the back, hips or pelvis.

Prostate cancer is rare in men younger than 40 years old but once they reach 50, the risk increases. Nearly 6 out of 10 men with prostate cancer are older than 65 years old, the Fox Chase specialists said.

Black men are more likely than men of other races and ethnicities to be diagnosed with prostate cancer and die from the disease, Kutikov said. Genetics may also play a role in why some men develop prostate cancer, Kutikov added. Men whose father or brother have the disease are more than twice as likely to also be diagnosed, he said. The risk increases if several family members are affected and if these men were diagnosed at a younger age.

Breast Cancer Radiation 'Less Scary' Than Thought

Radiation therapy for breast cancer is actually "less scary" than anticipated, 9 out of 10 patients say after treatment.

"The word radiation itself sounds frightening and is associated with many negative news stories," said lead researcher Dr. Narek Shaverdian, University of California, Los Angeles (UCLA). But over the last 20 years, significant advances have been made, said Shaverdian. "These changes allow us to spare critical organs, create an individual radiation plan for each patient, and also deliver radiation in more convenient schedules," he explained.

Shaverdian and his team surveyed patients who had received radiation while treated at a UCLA breast cancer clinic between 2012 and 2016. "The vast majority of patients agreed that if future patients knew the real truth about radiation therapy, they would be less scared about treatment," he added.

Recent studies have shown better survival and quality of life in patients treated with breast-conserving surgery and radiation rather than breast removal (mastectomy), Shaverdian noted.

Also the course of radiation in many cases has been cut from six weeks to barely three weeks, said Dr. Jed Pollack, chairman of radiation medicine at Lenox Hill Hospital, New York.

Modern radiation therapy also results in less damage to the skin or other body organs, Pollack said. "Those things added up make radiation a lot more convenient and a lot more tolerable" than it was in the past, Pollack explained.

Questionnaires were completed between 6 months and 5 years after radiation therapy. The women underwent either standard whole-breast radiation that did or did not include the lymph nodes, or short-course radiation after mastectomy, or partial breast radiation.

Nearly 50% of the patients said they'd heard horror stories of patients having serious radiation side effects. And 94% said they had feared radiation. Their greatest concerns were damage to internal organs, skin burning and, for a small number, becoming radioactive. When patients compared their experience to their expectations, between 80% and 90% found their actual side effects were less than or as expected, Shaverdian said.

In addition, the majority of breast-conservation patients and mastectomy patients agreed with the statement, "After treatment, I now realize that radiation therapy is not as bad as they say it is."



Fracture Risk Higher for Seniors With Diabetes

Seniors with type 2 diabetes may be at increased risk for fractures. "Fracture in older adults with type 2 diabetes is a highly important public health problem and will only increase with the aging of the population and growing epidemic of diabetes," said study author Dr. Elizabeth Samelson. Samelson and her colleagues used special medical scans to assess more than 1,000 people over a 3-year study period. The investigators found that older adults with type 2 diabetes had bone weakness that cannot be measured by standard bone density testing. "Our findings identify skeletal deficits that may contribute to excess fracture risk in older adults with diabetes and may ultimately lead to new approaches to improve prevention and treatment," said Samelson. Fractures among seniors with osteoporosis (the age related bone thinning disease) are a major concern. Such fractures can lead to decreased quality of life, disability and even death, as well as significant health care costs.

Even those with normal or higher bone density than their peers appeared to have a higher fracture risk if they had type 2 diabetes, the researchers said. Specifically, these people had a 40 to 50% increased risk of hip fracture. This is considered the most serious type of osteoporosis-related fracture.



Cancer Prevention in Our Hands

Dr. Nutan Sharma
Const. Obstetrician & Gynaecologist
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When ever we hear that some one has cancer we hold our breath, because we all know that cancer is a killing disease, and we all are scared of it. So today I will discuss about cancer prevention. It is suprising to know that at least one-third of all cancer cases are preventable. Prevention offers the most cost-effective long-term strategy for the control of cancer. The common cancers which affects our nepali women are cervical cancer, breast cancer, endometrial cancer & ovarian cancer. So here are some simple tip, do's and don't's which can prevent cancer in women.

Cervical Cancer

This is the most common type of cancer which affects our nepali population. There are few simple measures, which can prevent it. And if detected in time, it is 100% curable. Some important points to be considered are:

1. **Limit the amount of sexual partners** - Studies have shown women who have many sexual partners increase their risk for cervical cancer. They also are increasing their risk of developing HPV (Human Papillomavirus Virus) a virus which is known to cause cervical cancer.
2. **If you are sexually active, use a condom**- Having unprotected sex puts you at risk for HIV and other STD's which can increase your risk factor for developing cervical cancer.
3. **Quit smoking or avoid secondhand smoke**- Smoking cigarettes increases your risk of developing many cancers. Smoking combined with an HPV infection can actually accelerate cervical dysplasia (precursor of cancer). Best is to kick the habit.
4. **Get a regular Pap smear**- The Pap smear can be the greatest defenses for cervical cancer. It is a simple test where sample of cells are taken from a woman's cervix. The Pap smear can detect cervical changes early before they turn into cancer. In an attempt to get an paps test done you land up having a complete checkup too, thus ruling out other diseases.
5. **Follow up on abnormal Pap smears**- If you have an abnormal Pap smear, it is important to follow you with regular Pap smears or colposcopies, whatever your doctor has decided for you. If you have been treated for cervical dysplasia, you still need to follow up with Pap

smears or colposcopies. Dysplasia can return and when undetected, can turn into cervical cancer.

6. **Get the HPV vaccine**- If you are under 27, you may be eligible to receive the HPV vaccine, which prevents high risk strains of HPV in women. The HPV vaccine, Gardasil, was approved by the FDA to give to young girls as the vaccine is most effective when given to young women before they become sexually active.

Breast Cancer

Certain measures can prevent us from breast cancer, these are:

1. **Maintain a healthy body weight (BMI - Body Mass Index less than 25) throughout your life**- Weight gain in midlife, independent of BMI, has been shown to significantly increase breast cancer risk. Additionally, an elevated BMI has been conclusively shown to increase the risk of post-menopausal breast cancer.
2. **Minimize or avoid alcohol**- Alcohol use is the most well established dietary risk factor for breast cancer. The Harvard Nurses' Health study, along with several others, has shown consuming more than one alcholic beverage a day can increase breast cancer risk by as much as 20-25 %.
3. **Consume as many fruits and vegetables as possible**- The vegetables which are known to prevent breast cancer are cabbage, sprouts, cauliflower, dark leafy greens, carrots and tomatoes. Fruits include citrus, berries and cherries. It is best to eat vegetables raw or lightly cooked, as some of the phytochemicals, believed to offer protection against breast cancer are destroyed by heat.
4. **Exercise regularly** - Many studies have shown that exercise provides powerful protection against breast cancer. Aim for 30 minutes or more of moderate aerobic activity (brisk walking) five or more days a week. Consistency and duration, not intensity, are key!
5. **Do your fats right**- The type of fat in your diet can affect your breast cancer risk. Minimize consumption of omega-6 fats (sunflower, safflower, corn and cottonseed oils), saturated fats and trans fats. Maximize your intake of omega-3 fats, especially from oily fish (salmon, tuna). Consume

monounsaturated oils (olive oil, nuts/seeds) as your primary fat source, as these foods have potential anticancer properties. Minimize consumption of white flour, white rice, white potatoes, sugar and products containing them. These foods trigger hormonal changes that promote cellular growth in breast tissue.

6. **Minimize exposure to pharmacologic estrogens and xeno-estrogens**- Do not take prescription estrogens unless medically indicated. Lifetime exposure to estrogen plays a fundamental role in the development of breast cancer. Also avoid estrogen like compounds found in environmental pollutants, such as pesticides and industrial chemicals. Buy organic products if you can afford it; otherwise, thoroughly wash all non-organic products.

Endometrial Cancer

The high risk factors which can lead to endometrial cancer and which should be taken care of are obesity, diabetes and hypertension. Thus preventing these factors will help you to some extent to prevent endometrial cancer. Women with late menopause, women receiving radiations and women on hormone replacement therapy should be under regular evaluation.

Ovarian Cancer

This is one cancer which is difficult to predict, diagnose and treat. The only way to prevent its complications is early diagnosis, and treatment in time. Thus a routine checkup and a ultrasound scan yearly or if possible every 6 months is a must. Ultimately all comes up to awareness regarding diseases, our life style and our means to prevent it.

So in a nutshell if we maintain healthy eating habits, good exercise, healthy sexual behavior and a routine body check up, we will certainly be away from cancer. Take care.



बाइपोलर डिसअर्डर (एक संक्षिप्त परिचय)

डा. सुरेश थपलिया

मानसिक स्वास्थ्य विशेषज्ञ
लेक्चरर, नेशनल मेडिकल कलेज, बिरगंज



बाइपोलर डिसअर्डर के हो ?

बाइपोलर डिसअर्डर (Bipolar disorder) एक प्रकारको मानसिक समस्या हो जसलाई अंग्रेजीमा Mood disorder पनि भनिन्छ। यो रोगमा एकै व्यक्तिको मूडमा केही हप्ता वा महिना सम्म निरन्तर उदासी (Depressive phase) र केही समयको लागि अस्वाभाविक चञ्चलता, खुशी वा चिढिचिढापन अर्थात् म्यानिया (euphoric or irritable mania phase) का लक्षणहरू देखिने गर्दछ भने बिचमा मूड सामान्य अवस्था (euthymic phase) मा फर्किने गर्दछ। यस्ता लक्षणहरू देखिएर दैनिक व्यक्तिगत र सामाजिक जीवनमा खलल् पुग्नु बाइपोलर डिसअर्डरको लक्षण हुन सक्छ। कतिपय पीडितमा भने मात्र म्यानियाको लक्षण देखिने गर्दछ जसलाई Recurrent unipolar mania भनिन्छ। बाइपोलर डिसअर्डर एउटा 'मूड' को मनोरोग मात्रै नभएर मस्तिष्कका रासायनिक परिवर्तनहरूको कारणले निम्त्याउने मनोवैज्ञानिक (Neurobiological) रोग पनि हो। त्यसैले यसमा देखिने लक्षणहरू व्यक्तिको नियन्त्रणमा हुँदैन र 'मूड' लाई सामान्य राख्न नियमित औषधी सेवन अत्यावश्यक हुन्छ।

बाइपोलर डिसअर्डरका लक्षणहरू के के हुन् ?

यो मानसिक रोगले पीडित व्यक्तिको व्यक्तित्व, जीवन शैली र व्यवहारमा अस्वाभाविक परिवर्तनहरू ल्याउने गर्दछ जस्तै मन भारी हुने, उदास र नरमाइलो लाग्ने, एकलै बस्न मन लाग्ने, पहिले रमाइलो लाग्ने गतिविधिहरूमा पनि सहभागी हुन मन नलाग्ने, रुन मन लाग्ने, अत्याधिक थकावट महसुस हुने, जीवन अर्थहीन लाग्ने, भविष्य निराशाजनक लाग्ने, मनमा आफुलाई नोक्सान गर्ने र जिन्दगी समाप्त गर्ने विचार आउने या प्रयास गर्ने, आफ्नो बारेमा हिनभावनाहरू खेल्ने, भोक, निद्रा कम वा बढी लाग्ने, आफ्नो सरसफाइ गर्न मन नलाग्ने। यी सबै डिप्रेसन (Depression phase) का लक्षण हुन्। बाइपोलर डीप्रेसनमा आत्महत्या र आत्मनोक्सानको अत्यधिक सम्भावना रहने हुनाले माथि उल्लिखित लक्षणहरूलाई सावधानीपूर्वक लिन जरुरी हुन्छ।

अत्यधिक मन खुशी, चञ्चलता र चिढिचिढापन हुने, निद्रा कम लागेपनि शरीरमा अत्यधिक फुर्ती महसुस हुने, आफ्नो क्षमताभन्दा धेरै काम गर्ने जाँगर चल्ने, भविष्यका बारेमा अचानक ठुला ठुला योजनाहरू गर्ने, धेरै बोल्ने र रिसाउने, गाली गलौज गर्ने, सामाजिक परिस्थितीको ख्याल नगर्ने, आफ्नोबारे ठुलठुलो कुरो गर्ने, आलौकिक शक्तिहरूको भ्रम हुने, पैसा धेरै खर्च गर्ने। यी म्यानिया (Mania Phase) का लक्षण हुन्। म्यानिया रोगको लक्षण देखिएपछि आकस्मिक मानसिक स्वास्थ्य सेवाको जरुरी हुन्छ किनभने रोगले च्याप्दै जाँदा दैनिक व्यक्तिगत र सामाजिक जीवनमा उपयुक्त निर्णय लिने क्षमतामा उल्लेख्य कमी आउन सक्छ

र पीडित व्यक्ति क्रमश आफ्नो स्वाभाविक स्वाभावबाट टाढिदै जान्छ।

पहिले नै पीडित विरामी र तीनका आफन्तहरूले यी लक्षणहरू तुरुन्तै चिनेर उचित उपचार पाएमा रोगको नयाँ भट्टका (Relapse) लाई समयमै रोकथाम गर्न सकिन्छ। विशेषगरि जीवनका महत्वपूर्ण घटनाक्रम वा समस्याहरू (Life events) ले पैदा गर्ने तनाव (stress) ले पनि रोगका लक्षणहरू देखिन थाल्दछन्। अतः यस्तो परिस्थितिमा अझ चनाखो रहन जरुरी हुन्छ।

बाइपोलर डिसअर्डरको औषधोपचार कस्तो हुन्छ?

बाइपोलर रोग बारम्बार लक्षणहरू आइरहने एउटा दिर्घ मानसिक रोग भएको हुनाले यसलाई नियन्त्रणमा राख्न नियमित औषधी सेवन गर्नु अत्यावश्यक हुन्छ। यस रोगको उपचारका दुई चरण हुन्छन्, नयाँ लक्षणहरूलाई चाँडै नियन्त्रण लिन गरिने आकस्मिक उपचार (acute phase) र रोगलाई फेरी फेरी हुन नदिन गरिने दिर्घकालिन उपचार (maintenance phase)। यसरी 'मूड' लाई सामान्य अवस्थामा राख्ने ओखतीलाई मूड स्टाबिलाइजर (Mood Stabilizer) भनिन्छ जसमा लिथियम (Lithium), भाल्प्रोयट (Valproate), ल्यामोट्रिजिन (Lamotrigine), कार्बामाजेपिन (Carbamazepine) तथा एन्टी साइकोटिक औषधीहरू (Antipsychotic drugs) पर्दछन्। यस रोगलाई नियन्त्रणमा नलिए बारम्बार लक्षणहरू देखा परिरहने हुन्छ। विशेषगरी मस्तिष्कका रासायनिक पदार्थहरूमा दिर्घकालीन असर गरेर बि.डि.एन.एफ (BDNF) जस्ता मस्तिष्कका तन्तुहरूको विकासमा अत्यावश्यक रसायनहरूको कमीले स्मरणशक्ति सम्बन्धी विभिन्न समस्याहरू निम्त्याउन सक्छ।

यी ओखतीहरूको सही मात्रामा सेवन र विशेषगरी लिथियम (Lithium), भाल्प्रोयट (Valproate)

को लागि नियमित रगत जाँच (serum level) गराउनु र नकारात्मक असरहरूको बारेमा आफ्नो मानसिक रोग विशेषज्ञलाई जानकारी गराउनु जरुरी हुन्छ। ध्यान दिनु पर्ने कुरा के छ भने, यी ओखतीहरू जथाभावी आफैले चलाउने वा छोड्ने गर्नु हुँदैन। बाइपोलर डीप्रेसनको हकमा जान्नुपर्ने महत्वपूर्ण कुरा के हो भने यसको उपचारको लागि बिना कुनै मूड स्टाबिलाइजर मात्रै एन्टिडिप्रेसन्ट (antidepressant monotherapy) प्रयोग गर्नु हुँदैन। यसले म्यानिया (mania) को लक्षण निम्त्याउन सक्छ। लामो समयसम्म लिनाले त भन्नु रोग बिगार्न सक्छ।

के बाइपोलर डिसअर्डरको मनोसामाजिक उपचार सम्भव छ ?

बाइपोलर डिसअर्डरको उपचारको लागि विभिन्न मनोवैज्ञानिक पद्धतीहरूको विकास, अध्ययन र प्रयोग भएको छ जस्तै कग्निटीव बिहेवियरल थेरापी (Cognitive Behavioural Therapy), सोसल रिदम थेरापी (Social Rhythm Therapy), इन्टरपर्सनल थेरापी (Interpersonal Therapy) इत्यादी। तर यी सबै पद्धतीको मुख्य अङ्ग र उद्देश्य बाइपोलर रोगको बारेमा उचित जानकारी अर्थात् मनोशिक्षा नै हो। यसबाहेक नियमित निद्रा र खानपिन, व्यायाम, दैनिक जीवनशैली, स्वास्थ्य, अन्तर व्यक्तिगत र सामाजिक सम्बन्धको अभ्यास, तनाव व्यवस्थापन जस्ता जीवनशैलीमा सकारात्मक परिवर्तन गर्न सके रोग नियन्त्रणमा फाईदा पुग्दछ। तर नियमित र उचित औषधी सेवनले मात्र दिर्घकालिन रूपमा रोग मुक्त रहन सकिन्छ। अर्को महत्वपूर्ण पक्ष भनेको नशा सेवनबाट टाढा रहनु हो। मदिरा, गाँजा जस्ता नशाजन्य पदार्थको प्रयोगले रोगका लक्षणहरूलाई बढाउने र लिइरहेको औषधीलाई समेत प्रभावित बनाउन सक्छन्। त्यसैले बाइपोलर डिसअर्डरमा पीडितहरूले नशा मुक्त रहनु जरुरी हुन्छ।

When "H & D" are the major concern,

Halodol

Haloperidol 0.25mg Tablets

GENESIS

When Mind is Never Euphoric

ECT

Escitalopram 5mg, 10mg Tablets

GENESIS

Hemophilia A or B Clotting Factor Disorder

Dr. Disuja Shakya
Asst. Professor, Pediatrician
Chitwan Medical College

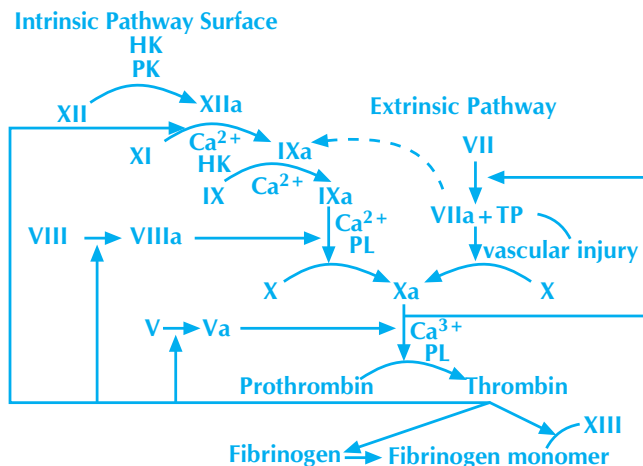


Hemophilia A (factor VIII deficiency) is more common and affects 1 in 5000 while Hemophilia B (factor IX deficiency) affects 1 in 30,000 boys or men at birth. Other types include Hemophilia C, which occurs due to inadequate factor XI, parahemophilia, which occurs due to inadequate factor V and acquired hemophilia is associated with cancer, autoimmune disorders, and pregnancy.

Pathophysiology:

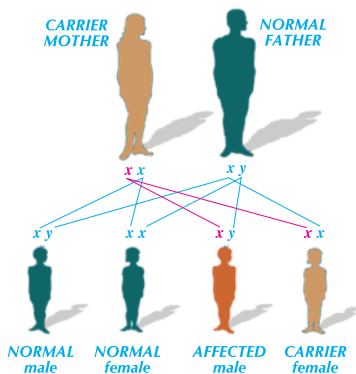
After injury, there is vasoconstriction and formation of platelet plug, together with the generation of the fibrin clot that prevents further hemorrhage.

Secondary hemostasis, there is activation of clotting factors. Factor VIII and IX is required for the activation of factor X and in extrinsic pathway, the complex of tissue factor and factor VII is required for activation of factor X. Hence, in the laboratory, prothrombin time (PT) measures the activation of factor X by factor VII and is therefore normal in patients with factor VIII or factor IX deficiency. And, significant prolongation of activated partial thromboplastin time in factor VIII or XI deficiencies.



Genetics:

- X linked recessive hereditary disorder.
- If a boy gets the X chromosome that carries the hemophilia gene, he will become affected.
- If a girl gets the gene, she will become carrier.
- Affected father can produce carrier daughters but normal sons.
- Carrier mother has a 50% chance of producing affected sons and carrier daughter.



Screening:

- Boys born to carrier mother should be tested at birth, by sending cord blood for aPTT and factor VIII or factor IX assay.
- Girls born to carrier mother or affected father may be tested with factor VIII or factor IX assays. DNA mutation analysis is the most accurate test for carrier detection.

Candidates for genetic testing include:

- Males with a diagnosis of hemophilia A or B
- At-risk females, who are related to males with hemophilia A or B
- Female carriers seeking antenatal diagnosis.

History and clinical presentation:

- A family history of hemophilia, usually positive from the maternal side.
- Male gender.
- Prolonged bleeding from heel prick
- 30% infants bleed following circumcision
- Bleeding longer after an injury than normal
- Easy Bruising
- Recurrent bleeding
- Hemarthrosis: generally affects one joint at the time; most commonly the knees.
- Hematomas: Subcutaneous and muscular hematomas
- Pseudo tumors: Dangerous and rare complication; Blood filled cysts that are gradually expanding; Occur in soft tissues or bones; Most commonly in the thigh; as they increase in size they erode contiguous structures.
- Intracranial hemorrhage: In moderate to severe hemophilia
- Other clinical manifestations: GI Bleeding is more common; Mucous Bleeding - Epistaxis, gum bleeding, Genitourinary Bleeding; Menorrhagia and bleeding following surgical procedures in girls.

Severity of hemophilia depends on the F VIII or IX levels

Severity	F VIII or IX activity	Clinical manifestations
Severe	< 1%	Spontaneous hemorrhage from early infancy Frequent spontaneous hemarthrosis
Moderate	1-5%	Hemorrhage secondary to trauma or surgery Occasional spontaneous hemarthrosis
Mild	> 5%	Hemorrhage secondary to trauma or surgery Rare spontaneous bleeding

- The hemostatic level for F VIII is > 30-40% and F IX is > 25-30%. The lower limit in normal individual is approx. 50% limit

Lab diagnosis:

APTT: prolonged → a mixing study is done.

- If mixing study is correctable after mixing patient plasma and normal plasma, the bleeding disorder is probably due to factor deficiency. But, if is uncorrectable, then the bleeding disorder is probably due to Factor inhibitor
- The specific assay for F VIII and IX will confirm the diagnosis of hemophilia.
- If F VIII and IX are normal, then factors XI and XII assays

PT: is normal; if the PT is prolonged → factor VII assay

CBC: To rule out thrombocytopenia as a cause of bleeding and to diagnose anemia.

Von Willebrand factor studies: To rule out von Willebrand disease

Platelet aggregation studies: To evaluate platelet function.

Liver amino transferase (AST and ALT): To evaluate liver dysfunction that can contribute to prolongation of PT and APTT.

Management:

- First aid with rest, ice, compression and elevation known as RICE
- Avoid toys with sharp or hard edges.

- Avoid sports or other out-side activities that may lead to injuries.
- The patients will most likely want to clean their teeth properly so diseases that can lead to bleeding in the gums will not occur.

Sources of F VIII

- FFP – can raise F VIII to 20% only, by giving many liters
- Cryoprecipitate - 1 unit of FFP prepared by cryoprecipitate contains 50-120 U of VIII
- Plasma Derived FVIII prepared by monoclonal antibodies.

Intranasal DESMOPRESSIN acetate “dDAVP” (analog of vasopressin) for mild hemophilia A. It increases F VIII activity. The dose is 150 µg (1 puff) for children <50kg and 2 puffs for >50kg.

Recombinant Factor Dose calculation

FVIII dose (IU) = % desired rise in FVIII × body weight (kg) × 0.5

F IX dose (IU) = % desired rise in F IX × body weight (kg) × 1.4

For mild to moderate bleeding, values of FVIII or F IX must be raised to 35-50%.

For life threatening hemorrhage, the level should be raised to 100%

Treatment of common types of hemorrhage

Hemorrhage	Hemophilia A	Hemophilia B
Hemarthrosis	50-60 IU/kg F VIII on day 1 then 20-30 IU/kg on days 2, 3, 5 until joint function is normal. Alternate day treatment for 7-10 days. Then prophylaxis.	80-100 IU/kg on day 1 then 40 IU/kg on days 2, 4. Alternate day treatment for 7-10 days. Then prophylaxis.
Hematoma	50 IU/kg F VIII; 20 IU/kg alternate day treatment until resolved	80 IU/kg F IX; then treatment every 2-3 days until resolved
Dental procedures	20 IU/kg F VIII + antifibrinolytic therapy	40IU/kg F IX + antifibrinolytic therapy
Epistaxis	20 IU/kg F VIII + antifibrinolytic therapy	30IU/kg F IX + antifibrinolytic therapy
Major surgery, life threatening hemorrhage	50-75 IU/kg F VIII, then 25 IU/kg q8-12h to maintain trough level > 50 IU/dl for 5-7 days, then 50 IU/kg q24h to maintain trough > 25 IU/dl for 7 days.	120 IU/kg F IX, then 50-60 IU/kg q12-24h to maintain trough level > 40 IU/dl for 5-7 days, then at > 30 IU/kg for 7 days.
Iliopsoas hemorrhage	50 IU/kg F VIII then 25 IU/kg 12 hourly until asymptomatic then 20 IU/kg alternate day treatment for 10-14 days.	120 IU/kg F IX then 50-60 IU/kg q12-24h to maintain at > 40 IU/dl until asymptomatic then 40-50 IU/kg alternate day treatment for 10-14 days.
Hematuria	1.5 X maintenance fluid + bed rest. If not controlled in 1-2 days then 20 IU/kg F VIII if not controlled then give prednisone.	1.5 X maintenance fluid + bed rest. if not controlled in 1-2 days then 40 IU/kg F IX. If not controlled then give, prednisone.
Prophylaxis	20-40 IU/kg FVIII alternate day to achieve a trough level ≥ 1%	30-50 IU/kg FIX every 2-3 days to achieve a trough level ≥ 1%

Course and prognosis:

- Permanent joint damage and disfigurement.
- Infections.
- Bleeding in the brain can result in long term headaches, seizures, or a decreased level of consciousness.
- HIV and hepatitis B and C.



क्यान्सर रोगबारे थाहा पाउनु पर्ने कुराहरु

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हाम्रो शरीर स-साना कोशीकाहरुबाट बनेको हुन्छ। यी कोशीकाहरु नियमित रुपमा विभाजन भइ नयाँ कोशीकाहरु बन्दै जान्छन् र पुरानो कोशीकाहरु नष्ट हुँदै जान्छन्। यी कोशीकाहरु विभाजन हुने र बढ्ने प्रकृया नियमित रुपमा भइ रहेको हुन्छ। यी कोशीकाहरुको विभाजन अनियमित तरिकाबाट हुन गएमा अथवा कोशीकाहरुलाई नियन्त्रण गर्ने क्षमता हाम्रो शरीरमा कम हुँदै गएमा क्यान्सर रोग लाग्ने सम्भावना बढी हुन्छ। हाम्रो शरीरमा रहेका ती कोशीकाहरुको विभाजनलाई नियन्त्रण गर्ने एक प्रकारको जीन हुन्छ। जब जीनले आफ्नो काम गर्दा कुनै प्रकारको रोकबाट भएमा हाम्रो शरीर भित्र भएको कोशीकाहरु अनियन्त्रित हुन गइ शरीरको कुनै पिन भागमा ट्युमर (गाँठो) देखा पर्दछ। ट्युमर दुई किसिमका हुन्छन् :

क. सामान्य ट्युमर :

शरीरको अन्य भागमा सरेर नजाने अर्थात एकै ठाउँमा रहने, छिटो नबढ्ने तथा शरीरको अंग भित्र छिरेर नजाने र शल्यक्रिया पछि पुनः पलाएर नआउने गाँठोलाई सामान्य ट्युमर (Benign tumor) भनिन्छ। यस प्रकारको ट्युमर एकदमै कम खतरा युक्त हुन्छ।

ख. हानिकारक ट्युमर :

शरीरको अन्य भागमा सरेर जाने, एकै ठाउँमा नबस्ने, छिटो छिटो बढ्ने, शरीरको अंग भित्र छिरेर जाने र शल्यक्रिया पछि पुनः पलाएर आउने तथा अस्वाभाविक तरिकाबाट वृद्धि भई शरीरलाई हानी पुर्याएमा त्यस्तो ट्युमर अर्थात गाँठोलाई हानिकारक ट्युमर (Malignant tumor) अर्थात क्यान्सर रोग लागेको भनिन्छ।

•क्यान्सर रोग के कति कारणले हुन सक्छ ?

क्यान्सर रोग यही कारणबाट हुन्छ भनेर यकिनका साथ भन्न सकिँदैन तर पनि कार्सिनोजेन्स नामक विशेष पदार्थबाट मानिसमा क्यान्सर रोग लाग्न सक्ने सम्भावना अवश्य नै बढी हुन्छ। उदाहरणको लागि धुम्रपान तथा सुर्तिजन्य वस्तु धेरै सेवन गर्ने व्यक्तिलाई मुख, घाँटी तथा फोक्सोको क्यान्सर हुने सम्भावना बढी हुन्छ। जंक फुड, बोसो युक्त मासु खानाले स्तन, आन्दा तथा पित्ताशयको क्यान्सर हुन सक्छ। त्यसैले ५०% क्यान्सर रोग हामीले खाने बानीमा भर पर्दछ।

•क्यान्सर रोग सरुवा रोग हो ?

क्यान्सर रोग कुनै सरुवा तथा संक्रामक रोग होइन। एक व्यक्तिबाट अर्को व्यक्तिमा सरेर खालको रोग होइन। यद्यपि क्यान्सरको कोशीकाहरु रक्त प्रवाह द्वारा शरीरको अन्य भागमा भने फैलिन सक्छ। हाल सम्म भेटिएका सर्वेक्षणलाई लिएर हेर्दा परिवारमा आमालाई स्तन क्यान्सर भएको छ भने ५०% छोरीहरुमा पनि स्तन क्यान्सर हुने गरेको पाइन्छ।

परिवारमा आमा, दिदि, बहिनी कसैलाई स्तन क्यान्सर भएको छ भने नियमित रुपमा वर्षको कम्तिमा १ पटक स्तन क्यान्सर विशेषज्ञलाई जचाएर ४० वर्ष नाघेका महिलाहरुले हरेक २ वर्षको एक पटक मेमोग्राम गर्ने गर्नु पर्दछ।

•क्यान्सर कसरी फैलिन्छ ?

क. क्यान्सरका कोशीका रक्त नली या रगत वाहक नशाको माध्यमबाट बढ्दै बढ्दै जान्छ र रक्त प्रवाहद्वारा शरीरको अन्य अंग वा हिस्सामा फैलिन सक्छ।

ख. ती नोड्सहरु रक्त प्रवाहमा जान्छन् र लसिका ग्रन्थिहरुमा प्रवेश गर्दछन्।

ग. ती नोड्सहरु एउटा टिस्यु सम्म फैलिन जान्छन्।

•क्यान्सर कति छिटो फैलिन्छ ?

क्यान्सरका सेलहरुको वृद्धिको निश्चित अवधि हुँदैन। केहि क्यान्सर यस्तो प्रकारका हुन्छन् जो केहि हप्तामा नै अत्याधिक फैलिन्छन्। केहि क्यान्सर यस्ता प्रकारका हुन्छन् जसको वृद्धि फैलावट हुनमा धेरै वर्ष लाग्दछ।

•तपाईंलाई क्यान्सर रोग छ कि छैन, कसरी थाहा पाउने ?

क्यान्सरको बारेमा सबैभन्दा चिन्ताको विषय के हो भने सुरुमा यस रोगको अत्यन्त कम लक्षण देखा पर्दछ। यस कारण तपाईंलाई क्यान्सर हुँदा हुँदै पनि तपाईंलाई थाहा नै हुँदैन। क्यान्सर रोगको पत्ता लगाउन सबैभन्दा उपयुक्त तरिका भनेको नियमित रुपले वर्षमा एक पटक आफ्नो जाँच या चेकअप क्यान्सर विशेषज्ञबाट गराउनुहोस्।

•तपाइको शरीरमा आएको गिर्खा क्यान्सर हो या होइन भन्ने कुरा कसरी थाहा पाउन सक्छन् ?

वायप्सी गरेर। अर्थात सुक्ष्मदर्शक यन्त्र (माइक्रो स्कोप) बाट शरीरको तन्तु निकाली त्यसको सानो टुक्रा या हिस्साको जाँच गरेर।

•तपाईंलाई क्यान्सर रोग हुने सम्भावना कति छ ?

प्रत्येक आठ जना नेपाली मध्य एक जनालाई क्यान्सर हुन सक्दछ। अर्को शब्दमा नेपालमा क्यान्सर रोगीहरु वर्षेनी ५० हजार भन्दा बढी रहेको पाइन्छ। यद्यपि क्यान्सर कुनै पनि अवस्थामा हुन सक्दछ। तापनि ४०/४५ वर्ष उमेर पछि क्यान्सर रोग लाग्ने सम्भावना धेरै हुने गरेको पाइन्छ।

•क्यान्सर के बाट हुन्छ ?

कुनै खास कारण भन्न गाह्रो छ तथापि कार्सिनोजेन्स नामक विशेष पदार्थहरुबाट तपाईंलाई क्यान्सर रोग लाग्न सक्ने सम्भावना अवश्य नै बढी हुन्छ। उदाहरणको लागि जुन मानिसले धुम्रपान तथा सुर्ति सेवन गर्दछ, उसलाई मुख, घाँटी (गला) तथा फोक्सोको क्यान्सर हुने

सम्भावना धेरै हुन्छ। चुरोट भन्दा बिडी खानाले दुई गुणा बढी हानिकारक छ। पर्यावरण प्रदूषण, बासी या निम्न स्तरको खाना, बोसो या चिल्लो पदार्थ धेरै खानाले, अत्याधिक मसालायुक्त खाना, डिब्बा बन्द (कैन्ड) खाद्यवस्तुहरुले क्यान्सर हुने सम्भावना बढी देखिन्छ। अरु थाहा भएका कारणहरुमा एस्वेस्टस, आर्सेनिक, पित्त, अलकत्रा, अल्ट्राभायोलेट किरणहरु पर्दछन्। गलामा लगातार खस खस लाग्नाले पनि क्यान्सर हुन सक्दछ। बढी भाइरस जस्तै: ई, बी, वीए, एच् पी वी हेपाटाइटिस बी बाट पनि क्यान्सर हुन सक्दछ।

•भोजन या खानासंग क्यान्सरको के सम्बन्ध छ ?

धेरै चिल्लो र कम रेशावाला (फाइबर) खाद्य पदार्थले आन्द्राको क्यान्सर हुन सक्छ। धेरै बोसोयुक्त खानाले स्तन आन्द्रा तथा पित्ताशयको समस्या हुन सक्दछ। भिटामिन बि, सी, र क्यारोटेनोइड्सको कमीबाट टिस्युहरुमा परिवर्तन हुन्छ। विशेषतया मुख तथा ओठमा, जसको परिणाम स्वरूप क्यान्सर हुन सक्दछ। सामान्यतया कुनै खाना अथवा मिश्रित खानाबाट क्यान्सर हुने अथवा क्यान्सरको उपचारमा कुनै असर पर्दैन, तर पोलेको, नुनयुक्त र धेरै घ्यू तेलमा तारेको खाना र रातोमासु (Red meat) बाट क्यान्सर हुन सक्ने आशंका गरिन्छ। हरियो सागपात, बन्दागोभीले क्यान्सर हुनबाट बच्न मद्दत गर्दछ। अदुवा तथा गोलभेडा पनि क्यान्सर हुनबाट बचाउने राम्रो खाना मानिन्छ।

•के तातो खानाले क्यान्सर हुन्छ ?

हो, धेरै तातो पेय पदार्थले मुख तथा खानानलीको क्यान्सर हुन सक्दछ। उपलब्ध तथ्याङ्क अनुसार धेरै मसालेदार खानाले पेटको क्यान्सर हुन सक्दछ।

•के मदिरा सेवन गर्नाले पेटको क्यान्सर हुन्छ ?

हो, मदिरा सेवनले पेटको क्यान्सर हुने बढी डर हुन्छ। मदिरा सेवनले खाना खाने नली, स्वरयन्त्र पेट र फोक्सोको क्यान्सर हुन पूर्वस्थितिलाई आमन्त्रण गर्दछ।

•के क्यान्सर वंशाणुगत रोग हो ?

सम्भवतः केही वंशाणुगत प्रवृत्तिहरु हुन्छन् जसको कारण विभिन्न प्रकारको क्यान्सर हुन सक्दछ। आमा बाबु मध्ये कुनै एक अथवा दुवैलाई क्यान्सर भएको छ भने, छोरा छोरीहरु त्यस रोगप्रति बढी सतर्क हुनुपर्दछ र शंकास्पद लक्षणहरुको जानकारी राख्नुपर्दछ। रेटिनोब्लाष्ट नाम आँखाको क्यान्सर एउटा किसिमको अतिरिक्त क्यान्सर रोग वंशाणुगत हुँदैन। ५% क्यान्सर वंशाणुगत मानिन्छ। जस्तो स्तन क्यान्सर भएमा छोरीहरुमा पनि हुने गरेको पाइन्छ।

•के विकिरण तथा सेलफोन प्रयोगबाट क्यान्सर हुन सक्दछ ?

एक्स-रे अत्याधिक प्रयोग गरिँदा यसबाट हुने विकिरणबाट क्यान्सर हुने सम्भावना ज्यादा

हुन्छ । ल्युकेमिया तथा मस्तिष्कको ट्युमर धेरैजसो सेलफोन प्रयोगकर्ताहरूमा भेटिन्छ तर यस कुरामा पनि अझ अनुसन्धान हुनु जरुरी छ ।

• क्यान्सरका चरणहरू:

पहिलो चरण (First Stage)

पहिलो चरणमा क्यान्सर रोगलाई पत्ता लगाउन सकियो भने शत प्रतिशत निको पार्न सकिन्छ ।

दोस्रो चरण (Second Stage)

दोस्रो चरणमा पत्ता लाग्यो भने निको पार्न सकिन्छ तर धेरै खर्चिलो, लामो समय सम्म उपचार गराउनु पर्ने हुन्छ ।

तेस्रो चरण (Third Stage)

तेस्रो चरणमा पत्ता लाग्यो भने क्यान्सर रोग निको पार्न सकिदैन तर विरामीको जीवनलाई केहि हदसम्म लम्ब्याउन सकिन्छ ।

चौथो चरण (Fourth State)

चौथो चरणको क्यान्सर रोगलाई केहि गर्न सकिदैन तर रोगको कारणले उत्पन्न अन्य समस्याहरूलाई व्यवस्थापन गर्न सकिन्छ ।

• क्यान्सरबाट बच्ने उपाय:

उपचार भन्दा यो रोगको बचाव राम्रो कुरा हो । करिव ६०% क्यान्सरबाट बच्न या जोगिन सकिन्छ । केहि निम्न केहि सरल सावधानीहरू अपनाउन सकिन्छ :

- शरीरको कुनै अंगमा धेरै समय सम्म चिलाउने भएमा यथासम्भव चाँडो रोक्ने उपाय गर्ने ।
- घाम या बढी हावामा धेरै बेर नबस्ने ।
- बच्चा जन्मदा भएको गर्भाशयको चोट या घाउको तत्काल उपचार गरि निको पार्ने ।
- स्तनहरूको जाँच नियमित रुपमा आफै गरिरहने ।
- बाङ्गो टेढो दाँतहरूको उपचार गर्ने र ठीक ठाउँमा नबसेको नक्कलि दाँत मिलाइ उपचार गर्ने ।

• के शरीरमा हुने सबै किसिमको कोठी (तील) हटाउनु पर्छ ?

हल्का रंग भएको, समतल कोठी हानिकारक हुँदैन । निलो अथवा कालो रंगको रौ नभएको विशेषता चिलाउने कोठी भएमा त्यसलाई तुरुन्त निकाल्नु पर्दछ र त्यस टिस्युको परिक्षण प्रयोगशालामा गराइ क्यान्सर भए नभएको निदान गराउनु पर्दछ ।

• हामी क्यान्सर रोगलाई कसरी नियन्त्रित गर्न सक्दछौ ?

- शंकास्पद कुनै लक्षण देख्ना साथ तुरुन्त क्यान्सर रोग विशेषज्ञसंग सम्पर्क गर्ने । सतर्कता तथा समझदारीबाट व्यक्तिले आफ्नो ज्यान बचाउन सक्दछ ।
- नियमित रुपमा क्यान्सर विशेषज्ञद्वारा वर्षको १ पटक शरीरको परिक्षण गराउने । ४० वर्ष पुगेका महिलाहरूले हरेक दुई-दुई वर्षमा

मेमोग्राफी गराउनु पर्दछ ।

ग. रोगको शंका भएमा यथाशिघ्र क्यान्सर विशेषज्ञद्वारा परिक्षण गराई आवश्यक अन्य जाँचहरू गराउने ।

• चिकित्सक संग सम्पर्क नगरी आफुलाई क्यान्सर भएको छ कि भनेर कसरी थाहा पाउने ?

चिकित्सक संग जाँच नगरी क्यान्सर भएको छ भनेर यसै भन्न सकिन्न । क्यान्सर रोगबाट बच्नाका लागि नियमित रुपले शरीरको सम्पूर्ण जाँच गराउने र यदि रोगका लक्षण देखिएमा पुनः त्यस सम्बन्धि आवश्यक जाँचहरू गराउने । क्यान्सर रोगको विरुद्धमा सर्वप्रथम तपाई सचेत हुन पर्दछ । यस रोगका चेतावनीका संकेतहरू निम्न प्रकारका रहेका छन्:

- निको नहुने खोकी वा धोक्रो स्वर भएमा,
- नदुख्ने गिर्खा स्तन या अरु ठाउँमा आएमा,
- कोठीको आकार परिवर्तन भएमा, ठुलो हुँदै गएमा,
- निको नहुने घाउ भएमा,
- अत्याधिक रक्तस्राप या पीप आएमा,
- दिशा वा पिसाबको बानीमा फरक परेमा,
- अपच वा निल्न गाह्रो भएमा
- अस्वभाविक रुपमा शरीरको तौल घट्दै गएमा ।

माथिका लक्षणहरू देखा परेमा सम्बन्धित विशेषज्ञलाई देखाएर आवश्यक जाँचहरू गराइ उपचार गराइ हाल्नु पर्दछ । समयमा नै उपचार गराएमा क्यान्सर रोग पनि निको हुन सक्छ ।

• क्यान्सरको उपचार विधि

- शल्यक्रिया
- रेडियोथेरापी
- केमोथेरापी

• तपाईंलाई क्यान्सर रोग निको हुने सम्भावना कतिको छ ?

प्रारम्भिक अवस्थामा पर्याप्त उपचार भएमा ८०% भन्दा बढी रोगी ठीक हुन सक्दछन् । क्यान्सर हुने वित्तिकै यदि तपाइ उपयुक्त ठाउँमा गइ उपचार गराउनु भयो भने तपाईंको रोग ठीक हुने सम्भावना प्रशस्त छ ।

• क्यान्सर रोग ठीक भएपछि तपाई एउटा सामान्य जीवन जीउन सक्नुहुन्छ ?

जति चाँडो तपाई उपचार गर्न जानुहुन्छ रोग ठीक भएपछि जीवन उत्तिकै राम्रो हुन्छ । अधिकांश क्यान्सर उपचारको क्रममा नै सामान्य जीवन जीउन थाल्दछन् ।

• के क्यान्सर डरलाग्दो रोग हो ?

तब मात्र यो रोग डर लाग्दो हुन्छ जब तपाई त्यसप्रति लापरवाहि गर्नुहुन्छ । आज धेरै भन्दा धेरै व्यक्तिहरू न केवल क्यान्सर रोगसंग संघर्ष गरिरहेका छन्, उनीहरू सामान्य एवं सफल जीवन बिताउन पनि समर्थ भए छन् । क्यान्सर रोग हुनु कुनै लाज लाग्ने कुरा होइन तर रोगको उचित समय र प्रक्रियाबाट उपचार गराउन ढिलो गर्नु हुँदैन ।

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Rapidly Progressive Glomerulonephritis (Crescentic Glomerulonephritis)

Dr. Amrit KC
Nephrologists, Parkland Hospital



Rapidly progressive glomerulonephritis is a medical emergency and is defined as rapid decline in renal function over days or weeks with crescent formation in more than 50% of glomeruli.

A crescent is an area of extracapillary cell accumulation within Bowman's space, associated with severely damaged glomerular tufts. It is so-named because of its appearance on renal biopsy.

Classification

Pathologically, crescentic glomerulonephritis has been classified according to the pattern of IgG and complement deposition in the glomerulus, determined by immunofluorescence.

Three patterns have been described:

1. Linear capillary loop deposition (anti-GBM disease)
2. Granular capillary and/or mesangial deposition, (associated with immune complex deposition (e.g. SLE or postinfectious GN));
3. Little or no deposition (pauci-immune) mostly due to Antineutrophil Cytoplasm Antibody (ANCA)-associated

Pathogenesis:

Crescents form following severe damage to the glomerular tuft by activated leukocytes, resulting in rupture of the GBM.

This releases cells and soluble mediators into Bowman's space where they stimulate proliferation of epithelial

cells, as well as recruitment of further leukocytes from the circulation along chemotactic gradients.

Fibrin may be deposited and fibroblasts may be recruited and activated leading to the production of fibrocellular or fibrous crescents.

Causes of CGN:

- ♦ Pauci-immune CGN
- ♦ Immune complex CGN including: SLE; cryoglobulinemia; IgA disease
- ♦ Henoch-Schönlein purpura;
- ♦ Postinfectious glomerulonephritis;
- ♦ Mesangiocapillary glomerulonephritis;
- ♦ Membranous glomerulopathy;
- ♦ Fibrillary glomerulonephritis.
- ♦ Anti-GBM disease-associated CGN

Investigations

- ♦ Renal biopsy: to assess the degree of glomerular involvement, and determine the degree of renal scarring.
- ♦ Immunohisto chemistry for IgG, IgA, IgM, C3 and C4, and C1q.

Serological investigations

- ♦ Anti-GBM antibodies,
- ♦ ANCA,
- ♦ Antinuclear antibodies (ANA),
- ♦ Anti-dsDNA antibodies,
- ♦ Complement components C3, C4, CH50.
- ♦ Antistreptolysin-O titre (ASOT).
- ♦ IgG, IgA and IgM.
- ♦ Serum protein electrophoresis or

free light chain assay.

- ♦ Urine protein electrophoresis for Bence-Jones protein
- ♦ Cryoglobulins. C-reactive protein (CRP).

Other Investigations

- ♦ Blood cultures: for evidence of infection-related immune complex disease.
- ♦ FBC and blood film for evidence of thrombotic microangiopathy.
- ♦ Biochemistry profile
- ♦ CXR, pulmonary function tests (with KCO), and/or bronchoscopy for evidence of pulmonary involvement (hemorrhage).

General Management Principles

Treat the underlying condition. The degree of crescentic change and the rate of decline in renal function will influence the choice of therapeutic options.

In certain severe aggressive forms of CGN early immunosuppressive therapy prevents further renal function decline.

Treatment protocols are dependent on disease severity.

Approximately 50% of patients presenting with dialysis dependent renal failure will regain independent renal function if treated aggressively.

Treatment options

Steroids, cyclophosphamide, mycophenolate mofetil, rituximab, plasma exchange depending upon the underlying cause and disease severity.

**When Excess Fluid
Is The Major Concern**



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Frusenide 20mg + Spironolactone 50mg Tablets



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Atopic Dermatitis

Dr. Padma Tuladhar

MBBS, DD

Fellowship (Laser & Cutaneous Surgery)

DI Skin Hospital & Research Center



One of the most common chronic skin diseases affecting 10-20% of children. AD has increased during the past 3 to 4 decades from 2-3% to 10-20%.

Atopic March

Begins atopic dermatitis → asthma → allergic rhinitis.

Atopic eczema is usually the first manifestation of the atopic disposition, so treating atopic eczema early in life may also down the march to atopy.

Etiology

- ◆ Unclear
- ◆ Possibility - Genetic
 - Environmental
 - Immunological

Genetic and environmental triggers

- ◆ Chromosome 5q 31 - 33
- ◆ Autosomal dominant inheritance
- ◆ If one parent has atopic diathesis 60% chance of child being atopic.
- ◆ If both parents are affected increase to 80%
- ◆ High prevalence 70% of atopy in family history.

Presenting History

- ◆ 50% of patients develop rash by first year of life
- ◆ 30% develop rash by 1-5 years
- ◆ 20% develop rash by >5 years

Diagnosis criteris of AD

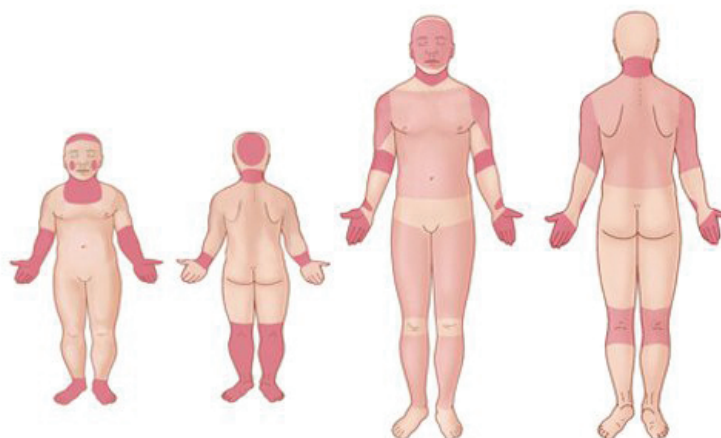
(Major Criteria)

1. Pruritus – Facial and extensor in children
– Flexor lichenification in adult
2. Chronic relapsing course
3. Personal or family history of atopy

(Minor Criteria)

- ◆ Xerosis
- ◆ Ichthyosis
- ◆ Immediate type I reaction to skin
- ◆ Elevated serum IgE
- ◆ Early age onset
- ◆ Cutaneous Infection (*S. aureus*, *HSV*)
- ◆ Non specific hand foot dermatitis
- ◆ Cheilitis
- ◆ Recurrent conjunctivitis
- ◆ Dennie morgan (infraorbital fold)
- ◆ Keratoconus
- ◆ Cutaneous subscapular cataracts
- ◆ Facial pallor
- ◆ *P. alba*
- ◆ Itchy when sweating
- ◆ Food intolerance
- ◆ Anterior neck fold
- ◆ Influence by enviromental factors

Common Sites of Eczema Outbreaks



- ◆ Intolerance to garment
- ◆ Perifollicular accentuation
- ◆ White dermographism

Management of AD

1. Hydration of skin by emollient therapy. It is very effective as first line therapy.
2. Control itch scratch cycle by oral antihistamine.
3. Avoid aggravating factors like detergent, harsh soap, wool, nylon
 - food (egg, cow milk, peanuts sea food)
 - Animal dander, molds
 - Humidity
 - Stress, anxiety
4. Reduce inflammation by topical steroids
 - ◆ mild potency 1% HC
 - ◆ mid potency 0.01% TA
 - ◆ high potency - desoximethasone
 - ◆ super potency- clobetasol propionate
5. Treat secondary infection
 - Bacterial (*Strep*, *S. aureus*)
 - Viral - Herpes Simplex
 - Warts
 - Molluscum contagiosum
 - Fungal

6. Key to successful therapy is education to the patients and family.

Prognosis of AD

- ◆ 50% of infantile onset clear by 2-3 years
- ◆ 75% of AD improve by 10-14 years
- ◆ 25% of AD continue to persist in adulthood
- ◆ 80% of AD patients develop allergic rhinitis

JOKE

Major Rohan: Dude EGGS are extra salty today, Tooo much Salt..why?

Waiter:
Sir, hen is suffering from **high blood pressure**

Doctor: You should take at least 10 Glasses of water every day.

Patient: It is Impossible.

Doctor: Why ?

Patient: I have only 4 Glasses at home..!

This Attitude Rocks..?

Teeth Said To Tongue:
"If I Just Press You Little, You Will Get Cut.."

Tongue Replied:
"If I Misuse One Word, All 32 of You Will Come Out..."

Triple Action
to Control Infection

Clobsol-GM

Clobetasol Propionate 0.05% w/w + Gentamicin Sulphate 0.1% w/w + Miconazole Nitrate 2% w/w Cream

Vitamin "D"

को कमी एक महामारी

Dr. Ram Krishna Baral
Consultant Physician
Nepal APF Hospital, Kathmandu



Vitamin D लाई सौर्य भिटामिन पनि भन्ने गरिन्छ । यसको कमी प्राय संसारभरका मानिसमा पाईन्छ र आजकल यो एक महामारीको रूपमा फैलिरहेको छ । तर धेरै थोरै मानिसहरूलाई मात्र यसको समस्याको बारेमा ज्ञान छ । Vitamin D को कमी जुनसुकै उमेर समुहका मानिसहरूमा पाईने गर्छ । गर्भवती महिला र तिनका नावालक शिशु, स्कुले बच्चा, युवा युवती र वृद्धवृद्धाहरूमा यसको असर हुने गर्दछ । यसको प्रभाव गाउँ वा शहर दुवै ठाउँमा उत्तिकै ब्याप्त छ । सूर्यको किरणको प्रभावले छालामा हुन सक्ने क्यान्सरको बढ्दो चिन्ताको कारणले गर्दा सूर्यबाट उत्पादन हुने Vitamin D को कमीको कारण खानामा पाईने Vitamin D का साथै चक्कीको प्रयोग बढि हुने गरेको छ । स्वस्थ हड्डीको लागि Vitamin D को जति जरूरत पर्दछ त्यतिनै आजकल अरु रोगहरूमा (Diabetes, Autoimmune Disorder, Cardiovascular Health र क्यान्सर) यसको महत्व पाइएको छ । यो संसारभरमा फैलिनुको कारण भएको यो रोगको बारेमा ज्ञान नहुनु, Vitamin D को फाईदा र कमी भएको अवस्थाको पहिचान र उपचार नहुनुनै हुन् ।

Vitamin D को कमीका कारण

- छालामा सूर्यको प्रकाशको कमीबाट Vitamin D कम बन्नु ।
- खानामा Vitamin D को मात्रा कम हुनु।
- बिभिन्न कारणबाट Vitamin D को पाचनमा कमी आउनु ।
- शरीरबाट Vitamin D छिटो नोक्सानी हुनु।
- अरु औषधीको प्रयोगले (जस्तै Rifampicin, Phenytoin आदि)
- कलेजोका रोगी, मृगौलाका रोगी, पेट, आन्द्राको समस्या भएका बिरामी ।
- अस्पतालमा बिभिन्न रोगको लागि भर्ना गरिएका बिरामी ।

Vitamin D को स्रोत

- प्राकृतिक रूपमा धेरै थोरै खाद्य पदार्थमा मात्र Vitamin D पाईने गर्दछ ।
- सूर्यको प्रकाशद्वारा छालामा बन्ने Vitamin D ।
- अण्डाको पहेलो भाग ।
- घाममा सुकाईएको च्याउ ।
- Cod Liver Oil
- Salmon माछा ।

लक्षण

सामान्यतया Vitamin D को हल्का कमीमा कुनै पनि लक्षणहरू नदेखिन सक्दछ । तर लामो समय सम्म Vitamin D को कमी भएमा आन्द्रामा Calcium, Phosphorus को पाचनमा कमी आउदछ । यसका कारण शरीरमा Calcium को कमी र Secondary Hyperparathyroidism हुन्छ । जसले गर्दा Phosphaturia, हड्डीमा मिनरलको कमी हुने र हड्डी कमजोर हुने गर्दछ । बच्चाहरूमा हुने यस्तो समस्यालाई Rickets भनिन्छ । अरु लक्षण जस्तै मांशपेसि कमजोर हुनु, शरीर दुख्नु र हड्डी दुख्नु पर्दछन् । Vitamin D को कमिको कारणले गर्दा मुटु सम्बन्धि रोग लाग्ने र शरीरमा रोग प्रतिरोधात्मक शक्तिको समेत कमी हुन सक्दछ ।

रोगको पहिचान

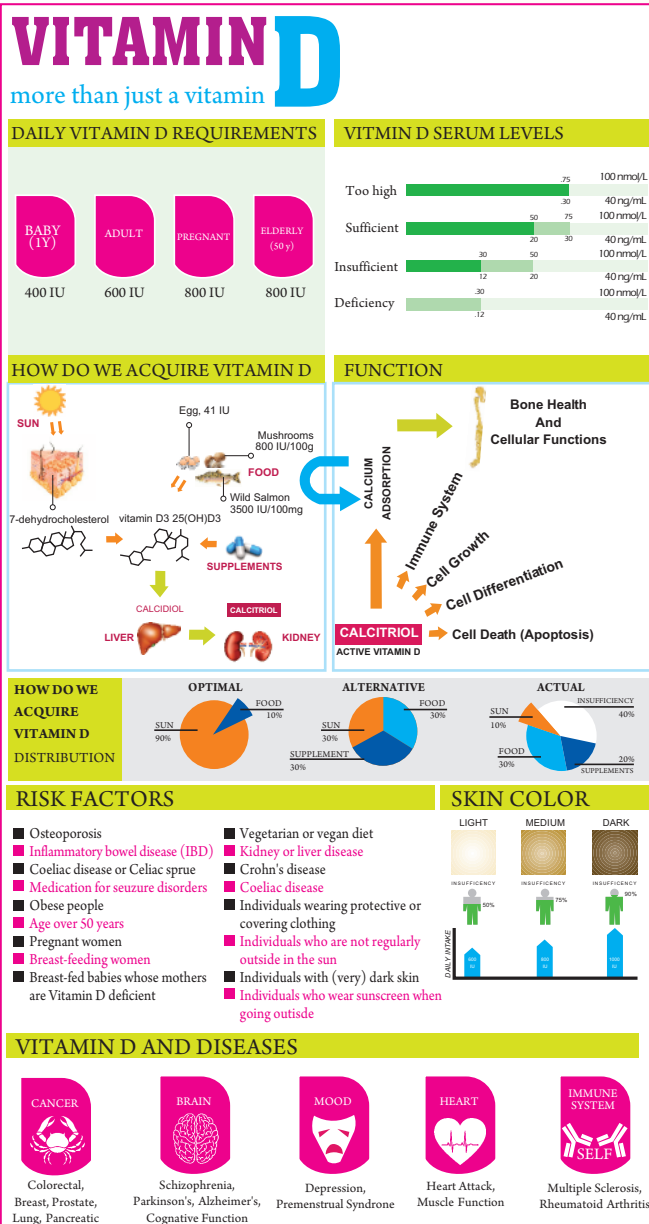
- रगतमा 25 (OH) D Level जाँच गर्ने ।
- यदि Vitamin D को Level 10-20 छ भने अरु थप जाँच गर्नु

पर्दैन ।

- यदि Vitamin D को Level <10 छ भने हड्डी कमजोर (Osteomalacia) हुने खतरा भएको कारणले Calcium, Parathyroid Hormone, Phosphorus समेत जाँच गर्नुपर्दछ ।

उपचार

- यदि Vitamin D को मात्रा शरीरमा निकै नै कम छ भने Vitamin D3 60000 IU हप्ताको एक पटक 8-12 हप्ता सम्म र त्यसपछि दैनिक रूपमा 1000 IU दिने।
- यदि Vitamin D Level 10-20 सम्म छ भने दैनिक 1000 IU 2-3 महिना सम्म दिएर ३ महिना पछि Vitamin D पूनः चेक गर्ने र कम आएमा High Dose मा जाने।
- यदि Vitamin D Level 20-30 छ भने दैनिक 600-800IU Vitamin D दिने ।



Cold Makes Vascular Disease Worse

Dr. Sandep Raj Pandey
Consultant Vascular Specialist
Annapurna Neurological Institute/
Norvic Hospital



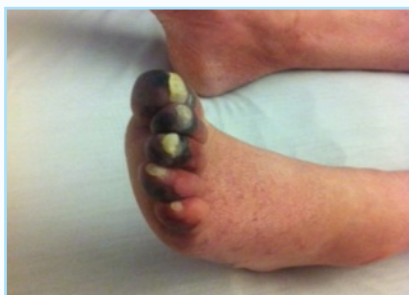
Cold weather brings out a lot of interesting vascular disease. When exposed to cold, blood vessels in the skin constrict. This results in blood shunting from the skin to the brain and internal organs. This is obviously a normal and positive vascular reaction to cold. However the reality is that cold weather induces many vascular diseases that result form unhealthy reaction of the vessels or their contents with the temperature. Cold induced vascular disease is more common in colder climates. This does not mean it is not seen in temperate regions of the world. In any case, cold induced vascular disease has many faces. It ranges from mild to irritating to severe and potentially limb threatening.

Blue toes and blue fingers

There are many reasons for blue toes. Most are not related to cold at all. Causes for blue toes range from benign to limb threatening. But most cold induced vascular disease results in blue toes. And many reasons for blue toes and blue fingers are actually related to temperature:

♦ **Raynaud's phenomena:** Raynaud's phenomena are more prevalent in cold

weather as cold exposure exacerbates the vasospastic disorder.



♦ **Pernio:** It's a disorder that results in small purple vesicles at the tip of toes and fingers. Pernio is also known as chilblains. It is related to cold and recurrent. This means that it can be seen with every cold season. Pernio is often mistaken for other causes of blue toes.

♦ **Frostbite :** No discussion of cold induced vascular injury is complete without frostbite. It's when exposure to cold temperatures causes freezing to the skin or other tissues. The initial symptom is typically numbness. This may be followed by clumsiness with a white or bluish color to the skin.

Swelling or blistering may occur following treatment. The hands, feet, and face are most commonly affected. Complications may include hypothermia or compartment syndrome.

♦ **Acrocynosis :** It's another cold induced disease which results in blue toes & can be primary or secondary. It becomes worse with cold exposure & better with rewarming.

♦ **Cryoglobulinemia :** Its's a disorder that results in immune complex deposition in cold tissues which is often located in the extremities. It's worse when exposed to cold.

SMART Choice for Common Cold

★ Star Anticold Tablet

Sinex

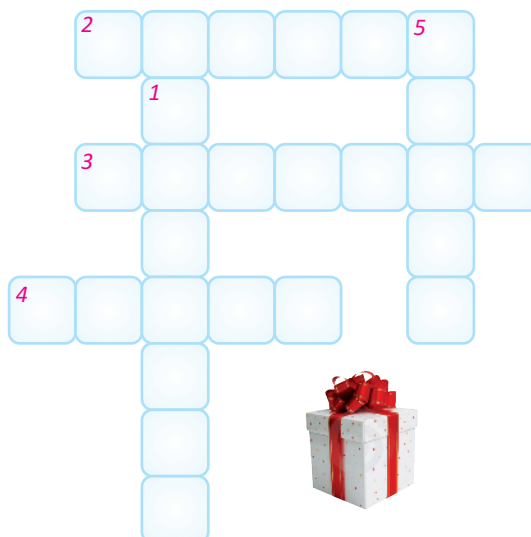
Phenylephrine HCL 10mg + Paracetamol 500mg + CPM 4mg Tablets
(Phenylephrine HCL 2.5mg + Paracetamol 125mg + CPM 1mg) /5ml Suspension




Racecar, Liplov, Rabepira, Queue, Words

BRAIN TEASER

1. What 7 letter word is spelled the same way backwards and forewords?
2. Atorvastatin of GENESIS Division.
3. Enteric coated pellets filled capsules of NEXUS Division.
4. What English word retains the same pronunciation, even after you take away four of its five letters?
5. We hurt without moving. We poison without touching. We bear the truth and the lies. We are not to be judged by our size. What are we?



Lucky winner will Get
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TIME Pharmaceuticals (P) Ltd. welcomes your comments/suggestions/inputs for coming issue of this bulletin.

Last date of "Brain Teaser" answers Submission : 23rd March 2018

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Celebrating World Diabetes Day, 2017 at MEDICITI Hospital



Celebrating World Diabetes Day, 2017 at MEDICITI Hospital



Participation at GPAN, 2017



Participation at GPAN, 2017



Participation at DEAN Conference, 2017



Congratulations to our CMD G. Narayan Bd. Chettri for being elected as Senior Vice President of APPON Nepal



Celebrating World Diabetes Day, 2017 at Madhyapur Hospital



Participation at MINI SIMON, 2017

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for Excellent PPI**



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