MEDITIME

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

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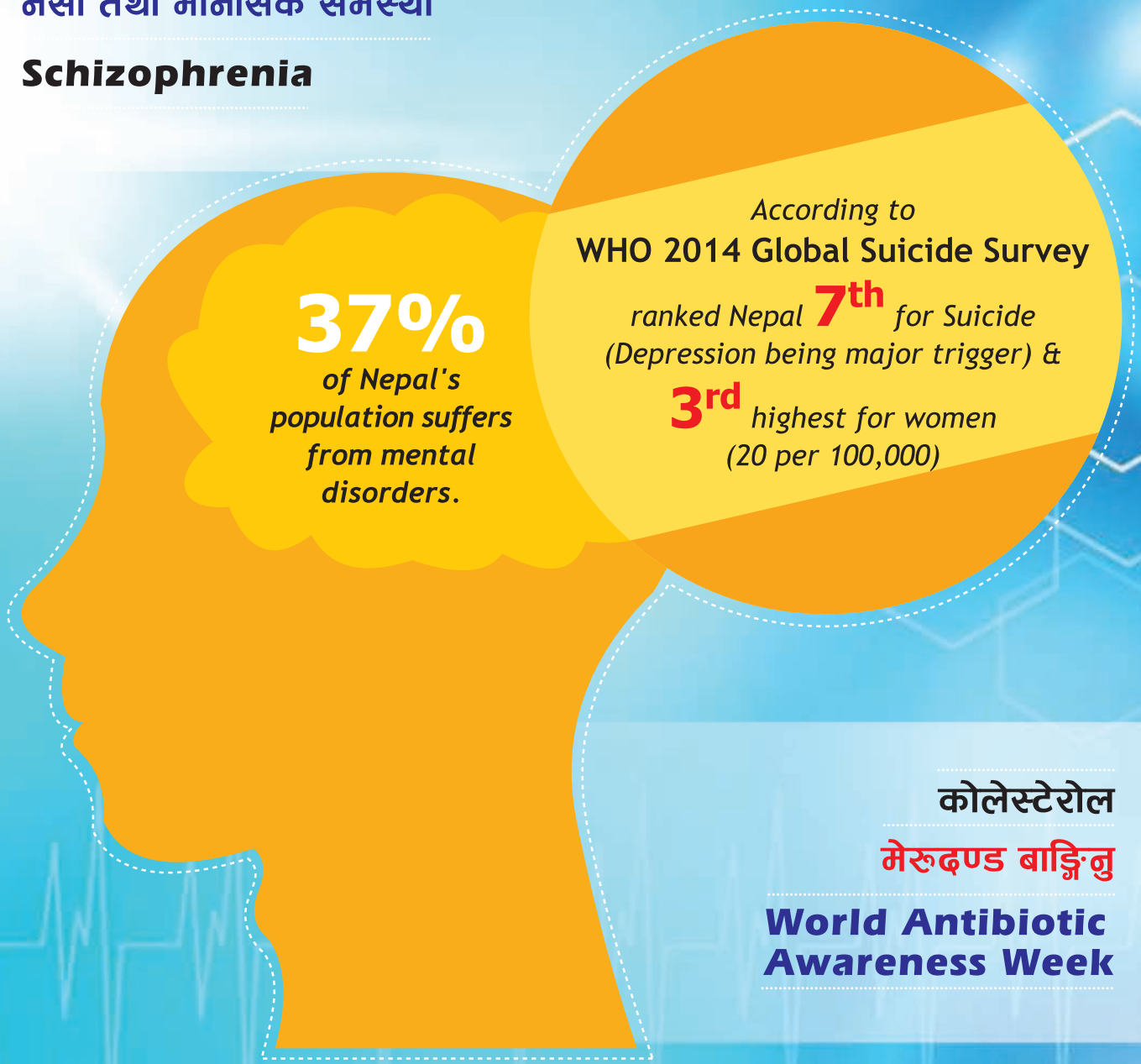
Depression In Chronic Back Pain

नसा तथा मानसिक समस्या

Schizophrenia



कोलेस्टेरोल

मेरुदण्ड बाङ्गिनु

World Antibiotic Awareness Week

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Editorial

According to WHO 2014, "37% of Nepal's population suffers from mental disorders; whereas over 90% of the population who needs mental health services has no access to treatment."

The above sentence shows that mental health is one of the least prioritized areas in the health care sector of Nepal. Besides the programs run by Nepal government and civil society organization, with a focus on awareness raising and psychosocial counseling, the majority of population seems to be still deprived of basic mental health services which impede their quality of life. The most challenging thing for many people with mental illness is that they are not accepted by family members and society, and people living with psychosocial disabilities often experience discrimination.

Mental health is one of the leading causes of disability globally, in which major depressive disorder, anxiety disorder and stress are the leading one. Different social determinants such as age, sex, ethnicity, socio-economic status, environmental events (e.g. natural disaster) etc can be the causative factors of metal health disorder. In the country like Nepal, poverty and unemployment are having detrimental effect in mental health. Beside this, in adults, the environment where he/she spents a large proportion of time such as work place can also be the factor of mental health disorder. WHO had recently celebrated World Mental Health Day 2017 with the theme of "Mental health in the workplace" with the overall objective of raising awareness of mental health issues and mobilizing efforts in support of better mental health.

In this issue, we are supported with articles related to psychiatric disorders and depression along with article on antibiotics and cholesterol. We feel honor to share the information from our valued doctors with our readers. I thank fully acknowledge all medical fraternities for your continuous support to our MEDITIME, and wish similar support with valuable feedback and suggestion for improvement in it.

With Best Regards,

Sudarshan Lal Shrestha
Editor in Chief

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Health News Line

Exercising during pregnancy is good for mother and baby- research confirms

Spanish researchers have clarified doubts over the physical activity recommended during pregnancy. Their work highlights how exercise should be taken not only by healthy, previously active women, but that it is also a good time to adopt a healthy lifestyle. There are clear advantages for both the mother and baby.

Excessive weight gain, pre-eclampsia, gestational diabetes, caesarean section, lower back pain and urinary incontinence are some of the risks of leading an unhealthy lifestyle during pregnancy.

A study carried out by experts from Camilo José Cela University (UCJC), published in the Journal of American Medicine Association (JAMA), defines the physical exercise patterns during pregnancy which have shown major physiological benefits for both mother and baby.

"The percentage of women who meet the recommendations for exercise during pregnancy is very low," says María Perales, the lead author of the study and a researcher from the department of Physical Activity and Sports Science. "This is due in part to uncertainty about what type of exercise should be recommended and which should be avoided."

However, the new study confirms that there is strong scientific evidence maintaining that moderate exercise during pregnancy is safe and beneficial for both mother and baby.

Among the confirmed benefits are: the prevention of excessive weight gain (a key factor in the intergenerational transmission of obesity) and a lower risk of fetal macrosomia (babies who are born weighing more than 4 kilograms), pre-eclampsia, gestational diabetes, caesarean section, lower back pain, pelvic pain and urinary incontinence.

Moreover, there is no risk of premature birth, low birth weight or fetal distress; provided that the mother has no medical or obstetric contraindication for physical exercise.

"The exercises recommended in our study should be performed not only by healthy pregnant women, but also by sedentary females prior to pregnancy since this is a good time to adopt a physically active lifestyle," adds Perales. "This also goes for women at risk of being overweight or obese or at risk of gestational diabetes and chronic hypertension."

Source: Plataforma SINC

Scientists discover brain area which can be targeted for treatment in patients with schizophrenia who 'hear voices'

For the first time, scientists have precisely identified and targeted an area of the brain which is involved in "hearing voices," experienced by many patients with schizophrenia. They have been able to show in a controlled trial that targeting this area with magnetic pulses can improve the condition in some patients. This early clinical work is presented at the ECNP conference in Paris on Tuesday 5th September, with later publication in Schizophrenia Bulletin*.

"This is the first controlled trial to precisely determine an anatomically defined brain area where high frequency magnetic pulses can improve the hearing of voices," said lead researcher, Professor Sonia Dollfus (University of Caen, CHU, France).

Schizophrenia is a serious long-term mental health problem. People with schizophrenia experience a range of symptoms, which may include delusions, muddled thoughts and hallucinations. One of the best-known is hearing voices, also known as Auditory Verbal Hallucination (AVH). These voices, may be 'heard' as having a variety of different characteristics, for example as internal or external, friendly or threatening, they may be continuously present or present only occasionally, and so on.

Transcranial Magnetic Stimulation (TMS) has been suggested as a possible way of treating the hearing of voices in schizophrenia. TMS uses magnetic pulses to the brain, and has been shown to be effective in several psychiatric conditions. However, there is a lack of controlled trials to show that TMS works effectively with AVH sufferers.

The French research team worked with 26 patients who received active TMS treatment, and 33 as a control group, who received placebo treatment. The researchers interviewed the patients using a standard protocol - the Auditory Hallucinations Rating Scale - which revealed most of the characteristic features of the voices which they were hearing. The treated patients received a series of 20 Hz high-frequency magnetic pulses over 2 sessions a day for 2 days. Using magnetic resonance imaging (MRI), the pulses were targeted at a specific brain area in the temporal lobe, which is associated with language (the exact area is the crossing of the projection of the ascending branch of the left lateral sulcus and the left superior temporal sulcus)

After 2 weeks, the patients were re-evaluated. The researchers found that 34.6% of the patients being treated by TMS showed a significant response, whereas only 9.1% of patients in the same group responded ('significant response' was defined as a more than 30% decrease in the Total Auditory Hallucinations Rating Scale score).

Professor Sonia Dollfus said: "Auditory Verbal Hallucinations, or "hearing voices" can be a disturbing symptom of schizophrenia, both for patients and for those close to sufferers. This is the first controlled trial to show an improvement in these patients by targeting a specific area of the brain and using high frequency TMS. This means two things; firstly it seems that we now can say with some certainty that we have found a specific anatomical area of the brain associated with auditory verbal hallucinations in schizophrenia. Secondly, we have shown that treatment with high frequency TMS makes a difference to at least some sufferers, although there is a long way to go before we will know if TMS is the best route to treat these patients in the long-term."

Commenting, Professor Andreas Meyer-Lindenberg, Central Institute of Mental Health, Mannheim and member of the ECNP executive board, said: "This work builds on previous studies that have shown a critical role of excessive activity of subregions of the temporal lobe in the generation of voice hallucinations in schizophrenia. To move this into treatment, controlled trial such as the one by Dollfus and coworkers are important. While response rates were moderate, TMS is a welcome addition to the therapeutic repertoire especially for patients who do not respond to medication."

*This work has been accepted in the peer-reviewed journal Schizophrenia Bulletin: The Journal of Psychoses and Related Disorders. The exact publication date has still to be determined.

Source: European College of Neuropsychopharmacology

Sleep positioner pillows could cause babies to suffocate, FDA warns

Officials warned infant sleep positioners could cause babies to suffocate. Infant sleep positioners are meant to help babies snooze in a safe pose, but officials are warning parents that the pillows can cause their newborns to suffocate.

often called “nests” or “anti-roll” products, can actually cause babies to sleep in a position that could cut off their oxygen while they are sleeping. Parents often use the positioners to keep their babies from moving to an unwanted position as they sleep. Several companies claim the pillows can help prevent sudden infant death syndrome, deformation and gastroesophageal reflux.

But health officials said the positioners cause the infants to end up in a face down position that impairs their breathing. Several cases reported babies initially placed on their backs and sides in sleep positioners, but parents later finding them in “dangerous positions within or next to these products.”

The FDA said parents should never use sleep positioners and babies should be placed in cribs without pillows, blankets, or any fluffy or loose items. Newborns also should always sleep on their backs.

Officials have warned expecting parents about the dangers of sleep positioners for years. In 2010, 12 babies died when they suffocated using a sleep positioner.

मनोविदलता (Schizophrenia)

Dr. Kanchan Dahal
Psychiatrist/Psychoanalyst
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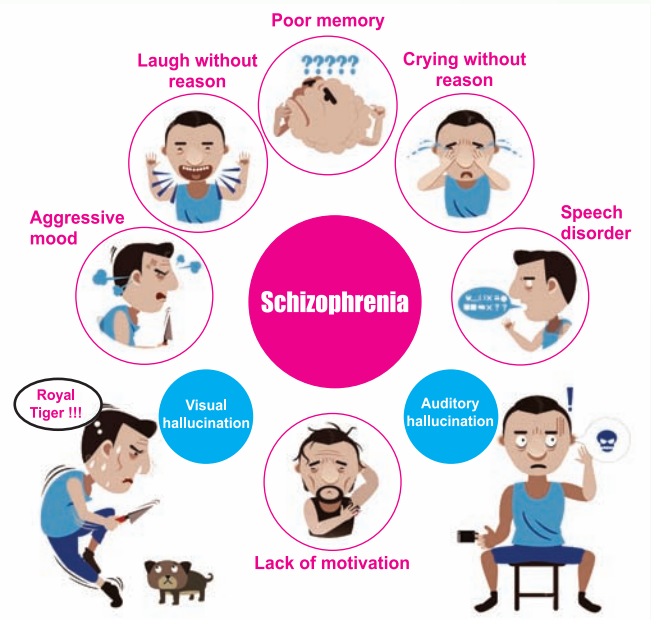
मनोविदलता एक प्रकारको कडा मनोरोग हो जसले विश्वको जनसंख्याको १ प्रतिशत मानिसलाई आक्रान्त पारेको छ। यो रोग पुरूष र महिलामा समान रूपले पाइन्छ । १६ वर्षदेखि ३० वर्ष सम्मका युवाहरू यो रोगबाट बढी प्रभावित हुने गर्दछन् । यो लेखमा मनोविदलताका लक्षणहरू कसरी विकसित हुँदै जान्छन् भन्ने जानकारी प्रस्तुत गरिएको छ ।

सरदर १६-३० वर्षको युवा असामान्य व्यवहार गर्न थाल्छन् । उसमा अपरम्परागत बानीहरू र आचरणहरू पहिले देखि नै देखिएका हुन सक्छन् तर तिनलाई सजिलै ठम्याउन नसकिएको हुन सक्छ । उसका जीवनका केही महत्वपूर्ण निर्णयहरू अनौठो हुन्छन् । उदाहरणको लागि कलेज पढ्ने विद्यार्थी अचानक कलेज छोड्न पुग्छ । त्यस्तै कुनै कार्यालयमा काम गर्ने मानिसलाई हाकिम वा अरू साथीहरूले आफुलाई अन्याय गरेजस्तो अथवा अनादर गरेजस्तो वा उसलाई बिनाकारण दु:ख दिए जस्तो वा उसलाई कुनै विशेष कारणले मन नपराएको जस्तो लाग्न थाल्छ जसले गर्दा उसले काम नै छोडिदिन्छ । प्रायजसो यी गडबडीहरू क्रमिक रूपमा देखिन थाल्छन् भने कुनै बेला रफ्तारमा केही व्यक्तिमा भ्रम, उत्तेजना र बिना कारणको रिसबाट यो रोगको सुरूवात हुन्छ । यस्तो समयमा त्यो व्यक्ती धेरै मानिसहरूसँग नजिकिन खोज्छ किनभने उसलाई संसार आफूबाट टाढा भैराखेको जस्तो भान हुन थाल्छ । आफुले पाउन नसक्ने कुराको खोजमा ऊ भौतारिन पुग्छ । कुन कुराको खोजीमा उ लागेको छ भन्ने ऊ स्वयंमलाई ज्ञान हुन छोड्छ । ऊ जति क्रियाशील बन्न खोज्छ, जति अनुभव बटुल्न खोज्छ त्यति नै उसका भ्रमहरू झाँगिदै जान्छन् । कोही आफ्नो शारीरिक बनावटमा खोट भएको कुरामा तनावग्रस्त हुन्छन् र कोही आफुलाई क्यान्सर वा एड्सबाट पिडित छु भन्ने भ्रमबाट ग्रसित हुन्छन् । आफुलाई पहिले मनपर्ने क्रियाकलापबाट ऊ टाढा हुँदै जान्छ । कुनै घटना वा वस्तुले उसको जीवनमा विशेष अर्थ राखेको जस्तो भान हुन थाल्छ । उदाहरणको लागि उसले बाटोमा कसैलाई भेट्यो भने त्यो गुप्तचर हो जस्तो लाग्छ र कुनै घटनाहरू संयोगले नभएर नियोजित छन् जस्तो लाग्न थाल्छ । उसले सोचेको कुराहरू जब संयोगवश पत्रपत्रिका, इन्टरनेट, टिभी, रेडियो अथवा सिनेमाहरूमा आउँछन्, उसका लागि ति संयोग मात्र नभएर शंकाको विषय बन्न पुग्छ । त्यसरी उसको शंका बढ्दै जान्छ, उसको खिल्ली उडाएजस्तो अनि उसको पछाडी कुरा काटेको जस्तो महशुस हुन थाल्छ, उसलाई आफु बाहिरी शक्तीहरूको (तत्त्वहरूको) नियन्त्रणमा भएजस्तो लाग्न थाल्छ । उसका सोचाइ र व्यवहारहरू ति बाहिरी तत्त्वहरूको प्रभावले भएका हुन् र तिनमा आफ्नो नियन्त्रण छैन जस्तो लाग्ने गर्छ । यी प्रभावहरूलाई प्रष्ट पार्न उसले विभिन्न कारणहरू दिने गर्छ, जस्तै दिमागमा कसैले कम्प्युटर राखिदिएको, घरमा जासुसी उपकरण राखिएको, उसका बिचारहरू रेकर्ड गर्ने यन्त्र राखिएको वा खानामा विष मिसाएको, वा कसैले टुनामुना लगाएको आदिलाई मतिभ्रम भनिन्छ । यस्तो भ्रमित अवस्थामा उसलाई लाग्छ कि मानिसहरू वा बाहिरि तत्वहरू उसको ज्यानको पछी लागेका छन् उसलाई यो पनि लाग्न थाल्छ कि कोही छ जसले उसका बिचार र कर्ममाथी नियन्त्रण गर्दैछ । समय बित्दै जाँदा उसलाई आफुले विभिन्न स्रोतबाट विभिन्न किसिमका गोप्य संकेतहरू प्राप्त भएको आभास हुन थाल्छ : ऊ आफुलाई राजा भएको, विशेष योजनामा खटिएको वा ईश्वर भएको ठान्न थाल्दछ । ब्रह्माण्ड र जीवनको सबै रहस्यहरू आफुलाई ज्ञान भएको महशुस गर्न थाल्छ । उसलाई मौसम, जलवायु, सुर्य-चन्द्रको स्थिति पनि नियन्त्रण गर्न सक्छु जस्तो लाग्न थाल्छ ।

उसलाई आफ्नो वातावरण अनौठो लाग्न थाल्छ र विभिन्न वस्तु र मानिसहरूसँगको पहिलेको सम्बन्धमा परिवर्तन भएजस्तो लाग्छ । वरपरका मानिसहरूको आकृति बदलिएको जस्तो, बनोट पनि भिन्न भएजस्तो लाग्छ । त्यसैगरी उसलाई जीवनको गती कहिले छिटो वा कहिले ढिलो भएजस्तो पनि अनुभव हुन्छ हुँदाहुँदै उसलाई यस्तो पनि लाग्न थाल्दछ की कतै नबोली, नलेखी आफ्ना मनका बिचारहरू नजिक वा टाढा बसेको मानिसहरूले वा पशुपंक्षीले थाहा पाइरहेका छन् । त्यतिमात्र होइन, उसले अरूले नसुन्ने तर आफुले मात्रै विभिन्न प्रकारका आवाजहरू सुन्ने गर्छ, जस्तै संगीतको धुन, पशुपंक्षीका आवाज वा मानिसहरूको स्वर ।

मुख्यतया उसले मान्छेहरूले उसको बारेमा राम्रा नराम्रा कुरा गरेको, यसो गर उसो गर भनी आदेश दिएको वा अब यसलाई डाम्नु पर्छ, पिट्नुपर्छ, मार्नुपर्छ भनेको आवाजहरू सुन्ने गर्छ । तर ती आवाजहरूको स्रोत भेट्टाउन नसकेपछी उ अत्यन्त भयभित हुने गर्छ । कहिलेकाहीँ त आवाजमात्र सुन्ने होइन उसले विभिन्न दृश्यहरू पनि देख्छ जुन सामान्य मानिसहरूले देख्न सक्दैन्न । यस्तो अवस्थामा उसको व्यवहार र मिजासमा पनि परिवर्तन देखा पर्छ, जस्तै डराएर कोठामा लुक्नु, बिनाकारण रूनु, हाँस्नु वा बिनाकारण रिसाउनु तथा कोही माथी जाइलाग्नु आदि । प्रायजसो मनोविदलता भएका व्यक्तिहरूमा माथी उल्लेख गरिएका परिवर्तनहरू बिस्तारै हुने गर्छन् जसले गर्दा उनीहरू सँग समय बिताउने व्यक्तिहरूलाई यी परिवर्तनहरूको बारेमा त्यति आभाष नहुन पनि सक्छ । तर, जो उनीहरूलाई केही समयपछी भेटेका हुन्छन् वा पहिलोपटक भेटेका हुन्छन, तिनले त्यस्ता व्यक्तिहरूको बदलिएको वा अनौठो व्यवहार थाहा पाउने गर्दछन् ।

मनोविदलतामा माथि उल्लेख गरिएका लक्षण बाहेक अरूपनि धेरै प्रकारका लक्षणहरू हुन्छन् । यो लेखको उद्देश्य सामान्य लक्षणहरू चिनेर, त्यस्ता लक्षण भएका व्यक्तिहरूलाई उपचार प्रक्रियामा सहभागी गराउनका लागि हो । हालसम्म यस रोगको ठोस कारण नभेटिएकोले यसको सम्पूर्ण उपचार भन्दा लक्षण न्यूनीकरण नै हालको उपचार प्रणाली हो । मनोविदलाताको उपचारमा औषधोपचार र मनोसामाजिक परामर्श विधि पनि छिट्टै प्रयोगमा आउनेछ ।

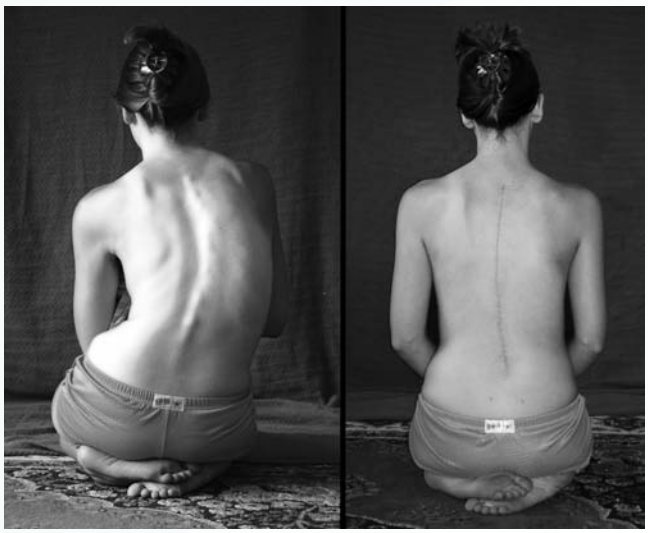


मेरुदण्ड बाङ्गिनु (Scoliosis)

Dr. Gaurav Raj Dhakal
Const. Spine Surgeon

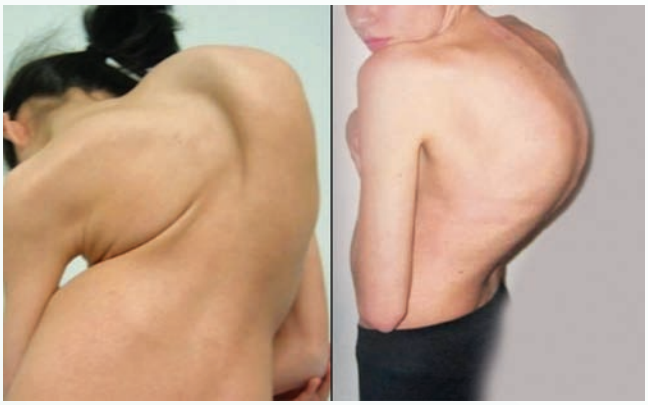
मेरुदण्ड बांङ्गिनु भनेको के हो ?

सामान्य रुपमा शरिरलाई पछाडीबाट हेर्दा मेरुदण्ड सीधा देखिन्छ तथा बाङ्गिएको मेरुदण्ड पछाडीबाट हेर्दा एकपट्टी केहि झुकाव स्पष्ट देखिन्छ । यो एक पक्ष झुकाव हो अथवा खराब आसन हो भनि भ्रमित नहुनु । यसलाई मेरुदण्ड बाङ्गिएको भनिन्छ ।



मेरुदण्ड बांङ्गिनुको संकेत के हो ?

१. एका पट्टीको काँध अर्को भन्दा उच्च हुनु ।
२. एका पट्टीको काँधको हडड्ी अर्को पट्टीको भन्दा उच्च वा ठूलो हुनु ।
३. दुवै हातका पाखुरा सिधा झुण्डाएर राख्दा, एका पट्टीको पाखुरा र शरिरको भागमा बढी दुरी वा खाली देखिनु ।
४. एकापट्टीको कम्मर अर्को भन्दा उच्च देखिनु ।
५. शीर कम्मरको हडड्ीको सिधा बिचमा नहुनु ।



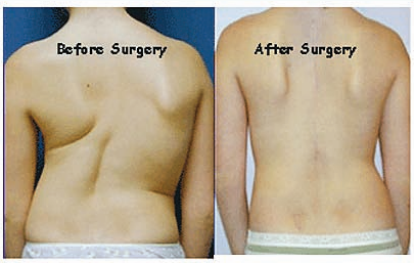
मेरुदण्ड बांङ्गिनुको कारण के हुन् ?

८५ प्रतिशत मानिसहरु जसको मेरुदण्ड बांङ्गिएको हुन्छ, त्यसको कारण अहिले सम्म पत्ता लाग्न सकेको छैन । मेरुदण्ड बांङ्गिने समस्याले बढ्दो उमेरका मानिसलाई हानि पुऱ्याएको हुन्छ, जब उनीहरुको शरिरको पूर्ण विकाश हुन लाग्छ । कारण थाहा नहुने मेरुदण्ड बांङ्गिने समस्या यस्तो परिवारमा देखिन्छ जहाँ आफूभन्दा आगाडीको पुस्तालाई पनि यस प्रकारको समस्या हुन्छ । यो समस्या सबै उमेर समूहका मानिसलाई देखिने भएपनि बडी मात्रामा १२ देखि १५ उमेर समूहका बालबालिकालाई देखिने गरेको पाईन्छ । यस उमेरका बालबालिकाले आफ्नो शरीर साथी भाई तथा परिवारका सदस्यलाई देखाउन चाहँदैनन् त्यसैले स्कोलियोसिस **(scoliosis)** अनुसन्धान समूह र अमेरिकन एकेडेमि अफ ओर्थोपेढिक सर्जनले मिलेर बालबालिकालाई विद्यालयमै स्वास्थ्य जाँच गर्ने व्यवस्था गरिएको छ, जसले गर्दा यी समस्याको समाधान समयमै गर्न सकियोस् ।

त्यसैगरी मेरुदण्ड बांङ्गिनुको अन्य कारणमा शिशुको जन्मजात मेरुदण्ड बांङ्गिएको हुनु, स्नायु प्रणालीको समस्या, मांसपेशी सम्बन्धी रोगहरु तथा अन्य समस्याहरु पर्दछन् ।

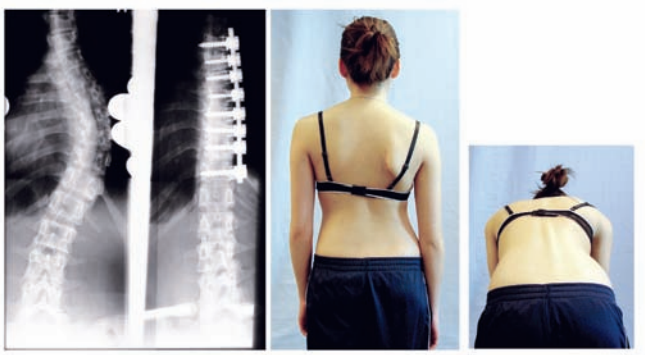
मेरुदण्ड बांङ्गिने समस्या कसलाई देखिन्छ ?

बाल्य अवस्थामा, कारण थाहा नहुने मेरुदण्ड बांङ्गिएको समस्या केटा तथा केटी दुबैमा देखिने भए पनि जब उनीहरु वयस्क समूहमा प्रेवश गर्दै जान्छन्, केटीहरुलाई ५ देखि ८ गुणा बढी प्रभाव पार्दछ र उनीहरुलाई उपचारको आवश्यकता पर्दछ ।



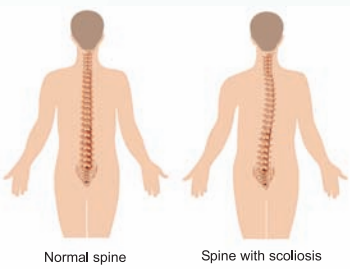
मेरुदण्ड बांङ्गिएमा के गर्न सकिन्छ ?

९० प्रतिशत समस्या सामान्य किसिमका हुन्छन् र उपचार नचाहिने हुन्छ । बढ्दो उमेरका वयस्कहरुमा बांङ्गिएको मेरुदण्डको परीक्षण गर्न X-Ray पनि गर्न सकिन्छ । मेरुदण्डमा धेरै समस्या देखिएमा spine surgeon लाई देखाएर शल्यक्रिया गर्नु पर्ने हुन सक्छ ।



उपचार गर्नु पर्ने अवस्थाहरु ?

- विरामीको उमेर
- हडड्ीको विकासको समस्या (Bone Age)
- झुकाबको डिग्री
- मेरुदण्ड बांङ्गिएको भाग
- महिनावारी र वयस्क भए नभएको अवस्था
- बिरामीको लिङ्ग
- मेरुदण्डको बिग्रिँदो झुकावको अवस्था ।



कोलेस्टेरोल

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कोलेस्टेरोल रगतमा भएको बोसो (लिपिड) को एक प्रकार हो। यो शरीरलाई निकै आवश्यक पर्ने तत्व हो जुन हाम्रो शरीरले आँफै बनाउछ। यसको उत्पादन कलेजोमा हुन्छ र रगतको माध्यमबाट कोषहरू सम्म पुग्दछ।

यसले शरीरको अधिकांश हर्मोन, भिटामिन डी, पित्त आदि बनाउन सहयोग गर्नुको साथै शरीरको कोषहरू स्वस्थ र स्थिर राख्नपनि मद्दत गर्छ। यो माछा, मासु, अण्डा, दुध आदिबाट पनि उपलब्ध हुन्छ।

ट्राइग्लीसेराइड

ट्राइग्लीसेराइड भनेको हामीले खाना खाएपछि शरीरले उत्पादन गरेको energy संग्रहीत भएर बनेको घ्रितास्स हो जुन शरीरको अंगहरु चलायमान राख्नको लागि शक्तिको रुपमा प्रयोग हुन्छ।

कोलेस्टेरोल र ट्राइग्लीसेराइडहरु शरीरको कोषमा गएर आंफुले गर्नुपर्ने काम गर्दछ। यो आवश्यक छ तर रगतमा आवश्यकता भन्दा बढी मात्रामा कोलेस्टेरोल रहेमा यसले शरीरलाई नराम्रो असर गर्दछ।

यो यदि रगतमा लामो समय सम्म बसिदियो या रगतनलीको भित्री भागमा अड्किदियो भने पत्र पत्र बनेर रगतनली नै टाली दिन्छ र रगत राम्रोसँग बग्न पाउँदैन। कोलेस्टेरोल र ट्राइग्लीसेराइड जमेर बसेको पत्र टुक्रिएर रगतनलीमा घुम्न थाल्यो भने टाउकोमा गएर मस्तिस्कघात हुने सम्भावना बढ्न सक्छ। यसरी कोलेस्ट्रोलको कारणले रगतनली बन्द हुन गएमा वा साँघुरिएमा त्यसबाट मुटु दुख्ने (ऐँठन हुने) तथा पक्षघातजस्ता समस्या देखापर्न शुरु गर्दछ।

High कोलेस्टेरोल र high ट्राइग्लीसेराइडका लक्षणहरु

शरीरमा कोलेस्टेरोल र ट्राइग्लीसेराइड धेरै हुने बित्तिकै कुनै रोग वा विशिष्ट लक्षणहरु देखिदैन। उच्चरक्तचाप, हृदयघात आदि भएपछि मात्र वर्षौं सम्म शरीरमा कोलेस्टेरोल र ट्राइग्लीसेराइड धेरै भएको रहेछ भनेर थाहा हुन्छ।

Familial hypercholesterolemia भएका बिरामीहरुमा खुट्टाको कुरकुच्चाभन्दा केहि माथि, कुहिनो, घुंडा, औंला, आँखावरिपरि आदि भागहरुमा छाला भित्र कोलेस्टेरोल जम्मा भएको देखिने गर्छ।

रगत जांच गर्दा प्रष्ट हुन्छ शरीरमा धेरै कोलेस्टेरोल र ट्राइग्लीसेराइड छन् या छैनन् भन्ने।

LDL, HDL and Total ट्राइग्लीसेराइड

LDL (Low Density Lipoprotein)

यो कोलेस्टेरोल बोकेर शरीरको अंग वा कोषमा पुऱ्याउँने protein युक्त तत्व हो। यसमा बोसो को मात्रा धेरै हुन्छ र यो रगतनलीमा अड्किएर बस्ने धेरै सम्भावना हुन्छ। त्यसैले यसलाई खराब कोलेस्टेरोल मानिन्छ।

HDL (High Density Lipoprotein)

यो पनि LDL जस्तै हो तर यसले रगतनलीमा अड्किएर बसेको LDL लाई हटाएर आँफु संगै लान्छ र कलेजोमा पुऱ्याउँछ। कलेजोमा LDL लाई थन्क्याइन्छ र पुन प्रसंस्करण गरिन्छ। HDL ले LDL को रगतमा हुने मात्रा कम गर्न र यसबाट रगतनलीमा हुने हानि न्यून गर्न सहयोग गर्छ, यस कारणले HDL लाई राम्रो कोलेस्टेरोल मानिन्छ।

Total कोलेस्टेरोल

Total कोलेस्टेरोल भनेको शरीरमा (खासगरी रगतमा) बिभिन्न रुपमा रहेका कोलेस्टेरोलहरुको कुल संख्या हो। जस्तै LDL, HDL र अन्ये।

Level of LDL, HDL and Total कोलेस्टेरोल रक्तनली सम्बन्धि रोग, मुटु रोग छ भने LDL 100mg/dl भन्दा कम हुनुपर्छ, मधुमेह लागि सकेको छ भने 70mg/dl भन्दा कम हुनु पर्छ।औषधिहरु:

atorvastatin, rosuvastatin, simvastatin, pravastatin, lovastatin, fluvastatin. यिनीहरुलाई statin औषधि पनि भनिन्छ।

अन्य औषधिमा पेटमा पित्तलाई पुन शरीरमा सोस्सिएर जान नदिने bile acid resins (cholestyramine, colespitol, colesevelam) पनि पर्दछ।

यी औषधिहरु कलेजोमा समस्या भएकोले र गर्भवतीले प्रयोग गर्न हुँदैन र प्रत्येक ६ देखि १२ महिनामा रगत जांच गर्नु पर्छ ।

HDL 60 mg/dl भन्दा माथि हुनुपर्छ। HDL कम भएमा Niacin (Vitamin B3) प्रयोग गरिन्छ। Niacin ले भन्दा नियमित शारीरिक व्यायमले HDL को मात्रा बढाई दिन सक्छ।

ट्राइग्लीसेराइड 150 mg/dl भन्दा कम हुनुपर्छ। औषधिहरु: Gemfibrozil, fenofibrate, clofibrate यिनीहरुलाई fibrate औषधि पनि भनिन्छ।

यी औषधिहरु कलेजोमा या पित्त थैली सम्बन्धि समस्या भएकाले प्रयोग गर्नु हुँदैन। statin औषधिसंग पनि सके सम्म प्रयोग गर्न हुँदैन।

यदि संगै लिने हो भने ६ देखि १२ महिनामा रगत जांच गर्नु पर्ने हुन सक्छ।

Total कोलेस्टेरोल 200 mg/dl भन्दा कम हुनुपर्छ।

Statin and fenofibrate

यसले हामीले खाएको खानाबाट निस्किएको कोलेस्टेरोललाई आन्द्राबाट सोसेर रगतसम्म जाने प्रक्रिया केहि मात्रामा बन्द गरिदिन्छ।

कोलेस्टेरोल र ट्राइग्लीसेराइड धेरै हुनेले खान नहुने : डाल्डा घिउ र यसबाट बनेका परिकारहरु, मासुको बोसो, तेल घिउमा चुर्लुम्म डुबाएर बनाएको परिकारहरु, अण्डाको पहेलो भाग आदि।

सकेसम्म कम खानु पर्ने कुराहरु : गाई भैंसीको घिउ, नरीवलको तेल, मासु, दुधको तर, चिज, केक, डोनट र क्रिम, चुरोट, रक्सि आदि।

खानहुने/खानु पर्ने कुराहरु :

अल्मोन्ड र बदाम, घरमै बनाएको फलफूलको रस, गेडागुडीको बाक्लो रस, दाल, स्टूवेरी, सबै खाले फलफूल, काँचो गोलभेंडा, हरियो तरकारी, माछा र ओमेगा-३ युक्त माछाको अन्डा आदि।

तरकारी र फलफूल काट्दा सुरुमा निस्कने चिप्लो लेउ जस्तो पदार्थ प्राय soluble fiber हुने गर्छन। चामल, जौं आदि भिजाउंदा निस्कने चौलानी वा चिप्लो वा बाक्लो पथार्थ पनि soluble fiber हुन्। Soluble fiber supplement को रुपमा किन्नपनि पाइन्छ जसले कब्जियतलाई ठिक गर्छ। Soluble fiber ले हामीले खाएको खानाबाट निस्किएको कोलेस्टेरोल लाई बाँधि दिन्छ जसले गर्दा आन्द्राले सोसेर रगत सम्म पुऱ्याउन पाउँदैन। यसरी पनि कोलेस्टेरोल कम गर्न सकिन्छ।

दिनहुँ व्यायाम गर्नुहोस, brisk walk गर्नुहोस्।

तौल ७० किलोको आसपास राख्नुस्, तनाबबाट टाढा रहनुहोस्।

खानामा के कम गर्ने ?

- धेरै चिल्लो र नुनिलो खाना
- छाला र बोसोयुक्त पोलेको/तारेको मासु, प्रोशोधित गरिएको खानेकुरा जस्तै : बिस्कूट, चाउचाउ, चिप्स, कुकिज, केक आदि
- रक्सी र चुरोट सेवन त्यागौं

खानामा के बढाउने ?

- हरियो सागपात, फलफुल, सुन्तला, कागती, गोलभेंडाको प्रयोग बढी गर्ने।
- कुखुराको मासु वा माछा खान सकिन्छ तर मासु पकाउन अघि छाला वा बोसो हटाएर कम तेलमा पकाउने
- उच्च फाइबरयुक्त खाना जस्तै गहुँ, खस्रो चामल, बोक्रा सहितको चना, भट्मास, स्याउ, त्यान्द्रो सहितको फलफुल खाने।

Anti-Oxidant (एन्टी-अक्सिडेन्ट) भन्नाले के बुझिन्छ ? के यसले मुटुलाई फाइदा गर्छ ?

Anti-Oxidant भनेको ती तत्व हुन्, जसले तपाई हाम्रो शरिरलाई free radicals बाट टाढा राख्दछ। यो free radicals हरुले हाम्रो शरिरमा भएको कोशीकालाई आक्रमण गरी हानी पुऱ्याउँछन्।

Anti-Oxidant ले हाम्रो मुटु र रक्त-नलीलाई फाइदा गर्छ। कम शारीरीक व्यायम, अस्वस्थ्य खानपान, चुरोट, तम्बाखु, रक्सी, प्रदुषित वातावरणले हाम्रो शरीरमा free radicals बढाउने काम गर्छ। अमला, ऐंसेलु, गोलभेडा, अमिलो फलफूल, हरियो तरकारी, अनाजमा Anti-Oxidant को मात्रा बढि हुन्छ।

Clavulanic Acid: Culprit for Liver Injury

Sabin Raj Shakya & Kritika Shrestha

Summary

Drug induced hepatotoxicity remains a problem that carries both clinical and post marketing regulatory decisions including drug withdrawal. Several cases have been reported with amoxicillin-clavulanic acid induced hepatic illness. Most of them had cholestatic hepatitis but there were also cases with hepatocellular or mixed type. Amoxicillin/clavulanate is responsible for 13%–23% of drug-induced hepatotoxicity cases and is the leading cause of hospitalization for adverse hepatic events. Because symptom onset is usually delayed, early diagnosis is difficult. Hepatotoxicity is clearly linked to the clavulanic acid moiety, with a 5- to 9-fold increase for the combination versus amoxicillin alone. Thus, accurate risk-benefit ratio evaluation before prescribing this combination is necessary.

Description

The liver is a major organ for metabolism of foreign substances and also functionally interposed between the site of resorption and the systemic circulation. These conditions render the liver not only the most important organ for detoxification of foreign substances but also a major target of their toxicity. Drug-induced liver injury (DILI) is the main reason for removing approved medications from the market. Moreover, drug-induced hepatotoxicity contributes to more than half of the cases of acute liver failure and is the major reason for liver transplantation.

Different group of drugs involved in liver injury are systemic antibiotics, NSAIDs, H2-receptor antagonists, anti-tuberculosis drugs, lipid lowering drugs, anxiolytics and medicinal herbs. Among antibiotics, it has the highest cases of drug induced liver injury. Amoxicillin/clavulanate ranks top among antibiotics prescribed in our country for the treatment of respiratory and cutaneous infection against bacteria that produces β-lactamase, conferring a wide spectrum against gram-positive and gram negative bacteria. Amoxicillin is narrow spectrum antibacterial agent; in fact clavulanate do not have significant antibiotic effect in combination, it is only responsible to inactivate β-lactamases. In different study performed in foreign countries, it is reported for most frequently antibiotic associated with DILI; whereas its adverse effect study is still not prioritized in our country. Reported in US and European countries, the combination is currently the most common cause of drug induced liver disease. The study reported that amoxicillin/clavulanate is responsible for 13%–23% of drug-induced hepatotoxicity cases and is the leading cause of hospitalization for adverse hepatic events. Because symptom onset is usually delayed, early diagnosis is difficult. Hepatotoxicity is clearly linked to the clavulanic acid moiety, with a 5- to 9-fold increase for the combination versus amoxicillin alone.

The cause of amoxicillin-clavulanate hepatotoxicity is unknown, but is probably immunoallergic in origin. The complete immune response is unknown, it seems likely that they represent neo-antigens produced by the beta-lactam structure of the clavulanic acid, reacting with proteins of the susceptible hosts. It is reported that such neo-antigens are formed in many people; but different factors like genetic variation, age, concomitant disease may trigger the effect. Allergic manifestations can occur and include rash, fever, arthralgias and eosinophilia. On the basis of the alanine aminotransferase (ALT) and alkaline phosphatase (ALP) levels, the liver test abnormalities are classified into hepatocellular, cholestatic, and mixed patterns. Hepatocellular injury is characterised by the marked elevation of ALT level, usually preceding increase in total bilirubin level and modest increase in ALP level. Cholestatic injury involves a predominantly increase in ALP level as a result of canalicular cholestasis or ductular injury. It is usually not as life-threatening as hepatocellular injury, but it may lead to chronic ductopenia and rarely cirrhosis. In a mixed pattern of DILI, patients present with a combination of acute hepatitis and cholestasis. Of the three patterns of liver injury, hepatitis is more commonly accompanied by acute liver failure.

A large prospective case series involving 69 patients with amoxicillin-clavulanate hepatotoxicity suggested that the type of hepatic injury observed varies according to the time from onset of therapy, where hepatocellular injury predominates at 1 week, cholestatic injury at 2–3 weeks and mixed liver injury after 3 weeks. There was a 7% probability of an unfavourable outcome (death, liver transplant or persistent liver damage) and a 3% probability of a severe (death or liver transplantation) outcome in this series.

A retrospective case analysis of 800 patients with drug-induced jaundice suggested that amoxicillin/clavulanate was responsible for 32% of cases, giving an estimated incidence rate of 9.91 cases of jaundice per 100000 prescriptions. The typical pattern of hepatotoxicity is a cholestatic reaction that develops 1–4 weeks

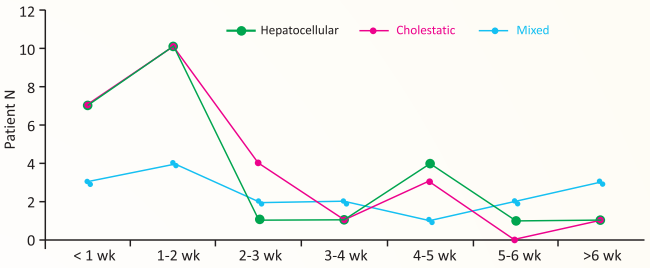


Fig: Distribution of the 69 patients with amoxicillin-clavulanate induced hepatotoxicity segregated according to time lapse between treatment initiation and the onset of hepatitis, and type of liver damage.

after cessation of therapy. However, delayed onset of symptoms can be seen up to 8 weeks following discontinuation of therapy and prolonged cholestasis with ductopenia following cessation of therapy has also been described. Some patients, however, have a protracted course that can lead to acute liver failure and death.

In a prospective study by Andrade *et.al.*, they reported that 13% (59/446) of their patients suffering from acute DILI were due to Amoxicillin/Clavulanate and 6% of them developed acute liver failure or progressed to chronic liver disease and cirrhosis.

In a prospective study conducted in Italy, the percentage of gastrointestinal, hepatic and haematological reactions was significantly higher for amoxicillin clavulanic acid (13%, 4% and 2%, respectively) than for amoxicillin (7%, 1% and 1%, respectively). Amoxicillin/ clavulanic acid seems to be associated with a higher risk of Stevens–Johnson syndrome, purpura and hepatitis than amoxicillin alone.

In summary, amoxicillin-clavulanate is the most frequent cause of idiosyncratic DILI probably throughout the world. Thus accurate risk/benefit evaluation before prescribing amoxicillin/clavulanic acid to individual patients is necessary against other safer β-lactams or cephalosporins. The economic burden that can be arose in future due to DILI should be considered specifically.

DEPRESSION IN CHRONIC BACK PAIN
Clinical Association

Dr. Sunil K. Paudel
1st BNYS of Nepal
PG Dip : Pain Management (UK),
Advance Training (USA)
Chronic Back Pain Expert
Director: Spark Health Home

Chronic low back pain (CLBP) is a major public health and socio-economic problem and a major reason for health care service utilization, disability, loss of working hours subsequently affecting the patient's social and other activities (Johnson *et. al.* 2007, Zenker *et. al.* 2006). Lloyd *et. al.* (2008) state that depression and pain both are highly prevalent health conditions irrespective of gender, age, geographical or socioeconomic backgrounds.

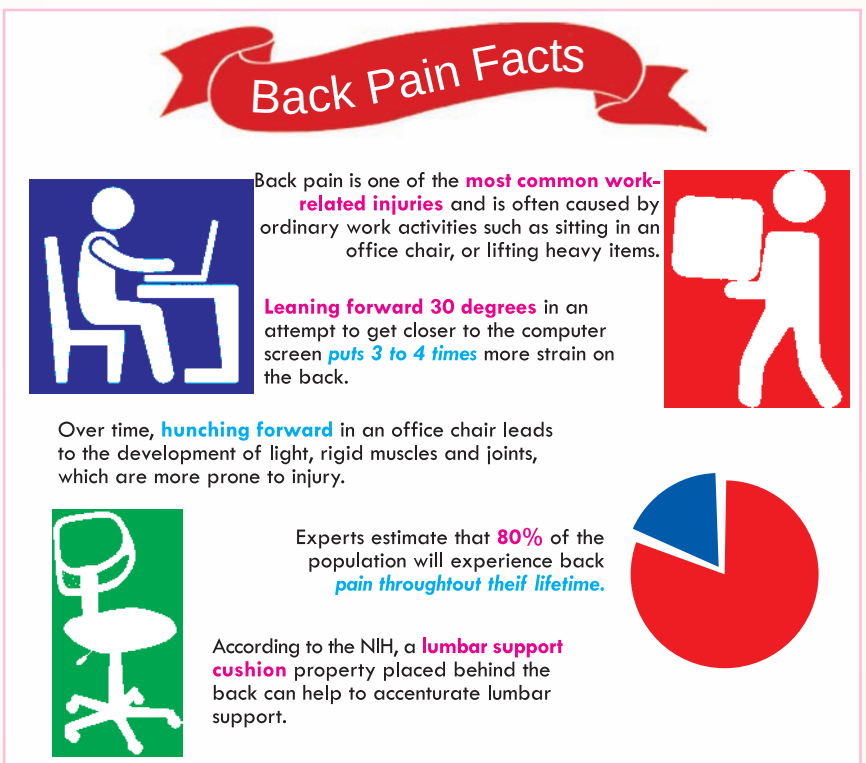
Sharp (2001) states that the use of words such as 'unpleasant' and 'emotional experience' in the definition of pain, as defined by the International Association for the Study of Pain, indicates the significant influence various psychological factors have on pain. Mc Cracken and Yang (2006) state that pain involved both physical and psychological factors but chronic pain had a greater psychological component as many of the patients struggle to get relief. Miller and Cano (2009) in a survey found back pain as the most prevalent chronic pain. Anxiety and depression are very common among patients suffering from chronic low back pain (CLBP) as patients struggle to cope up with chronic pain (Smeets *et. al.* 2006, Johnson *et. al.* 2007, Morley 2008, Carey *et. al.* 2009, Miller and Cango 2009). The World Health Organization (WHO) (2009) describes depression as a state of mind dominated by lack of interest/ motivation/mood and amplified guilt. WHO also identifies depression as a risk factor for increased disability, loss of working hours and difficulty in returning to work.

Various psychosocial factors shape a person's response to chronic pain and these factors including depression can lead to disability in a person suffering from CLBP (Johnson *et. al.* 2007, Morley 2008). Currie and Wang (2004) found CLBP patients to be at high risk of falling into major depression which could progress to major disability. The current health care services around the globe lacks evidence based practice in treating depression associated with CLBP (Lloyd *et. al.* 2008, Carey *et. al.*2009).

Increased incidences of cognitive mistakes, negative appraisals and maladaptive beliefs, disastrous interpretations and avoidance behaviours have been associated with patients suffering from anxiety and depression (Sharp 2001, Smeets *et. al.* 2006). All the studies included in the literature review recognize that depression in CLBP patients further complicates the problem. Cognitive Behavioural Therapy (CBT) has been found to reduce pain and pain related disability in CLBP patients (Johnson *et. al.* 2007, Morley 2008). Multimodal treatments as suggested by the biopsychosocial model have been found effective for chronic pain. Psychological interventions such as cognitive and behavioural programmes are believed to be convenient and cost-effective in addressing the complex psychological components including that of depression in chronic pain (Johnson *et. al.* 2007, Morley 2008). Woby *et. al.* (2008) emphasizes at physiotherapist-led cognitive/behavioural multimodal exercise programmes which could be far better than just single intervention or a normal intervention from a general practitioner.

Present standard health care lacks evidence based care despite the bulk of evidence in the screening and management of depressive symptoms in CLBP (Lloyd *et. al.* 2008, Carey *et. al.* 2009). Pharmacological (antidepressants) and psychological interventions (CBT, relaxation, behavioural therapy, self management etc) can bring considerable improvement in depressive symptoms in CLBP (Zenker *et. al.* 2006, Carey *et. al.* 2009). Though Carey *et. al.* (2009) admit that these interventions were unlikely to bring changes in physical functioning or disability. More research is warranted to formulate a judicious and cost-effective combination of interventions (multidisciplinary approach with active patient involvement) to solve this problem and get all-round benefits including improving pain intensity and disability.

Almost all of the papers included in the review found various biologic and psychosocial variables adding to the disability and suffering of back pain which have been a major socio–economic burden over the society and health care services. Lloyd *et. al.* (2008) state that various psychosocial risk factors including depression can directly contribute to the severity and chronicity of pain in almost 50% of the cases making it require specialist intervention. Therefore screening depression in CLBP population should be given higher priority. The high amount of available evidence emphasize the need for the introduction of protocols and implementing them into practices to screen, detect and treat depression associated with chronic back pain (Hill *et. al.* 2008, Lloyd *et. al.* 2008). Screening tools as described by Hill *et. al.* 2008 or of a similar kind could be of great potential to uncover the hidden psychosocial risk factors including depression. Many high quality comparative and randomized trials would be necessary in order to finalize the best screening tool to screen and refer to the best treatment protocols. Identifying the associated depression would have been very easy had applying such screening tool been made mandatory. There are possibilities that patients do not have to suffer for long had the associated depression be screened and treated at first visit.



नसा तथा मानसिक समस्या सम्बन्धि जनचेतना

Dr. Pradeep Pandey
Neuropsychiatrist
Alka Hospital

यसमा हामी सोमाटोफोर्म disorder को बारेमा चर्चा गर्नेछौं । Somatoform disorder भन्नाले त्यस्तो समस्यालाई बुझिन्छ जुन समस्यामा व्यक्तिलाई शारीरिक समस्या हुन्छ जसको कारण मानसिक रोग हुने गर्दछ । त्यसैले सबै शारीरिक समस्याको कारण blood investigation मा नै देखिनुपर्दछ भन्ने हुँदैन र सबै organic cause हुनुपर्दछ भन्ने हुँदैन । कति शारीरिक समस्याहरू मनको कारणले पनि हुने गर्दछन् ।

सोमाटोफोर्म disorder का प्रकारहरू:

Somatization Disorder: यसमा व्यक्तिलाई लामो समयदेखि २ वा २ भन्दा बढी शरिरका अंगहरूमा दुखाईको महसुस हुने गर्दछ । तर जाँच गर्दा यो समस्या पुरूषको तुलनामा महिलाहरूलाई बढी हुने गर्दछ । यो लामो समयसम्म जाने समस्या हो । यो समस्या भएको ५ बर्षपछी मात्र ८०% को diagnosis हुने गर्दछ । यदि घरमा कसैलाई सोमटोफोर्म छ भने उसको महिला नातागोतालाई हुने सम्भावना १०-२०% हुने गर्दछ । ३० वर्ष भन्दा पहिले सुरू हुने यो समस्या लामो समय जानुको साथै यसले उक्त व्यक्तिको काममा र जीवनमा नै ठुलो प्रभाव पार्ने गर्दछ ।

Conversion Disorder: यसमा व्यक्तिको संवेदना र हात-खुट्टाको कार्य क्षमतामा प्रभाव पर्दछ । केटीहरूलाई केटाहरूलाईभन्दा २ गुना प्रभाव पर्दछ । प्राय शरिरको दुबै भागमा यो समस्या देखिने गर्दछ । प्राय यो समस्या कम पढेका, थोरै कमि भएका व्यक्तिहरूमा देखिने गर्दछ । यो समस्यासंग depression, anxiety, schizophrenia जोडिएर आउने गर्दछन् । यी शारीरिक symptoms हरूलाई अन्तर्मनमा दबेर बसेका गाठोहरू खोल्ने एउटा माध्यमको रूपमा पनि लिन सकिन्छ । कहिलेकाही घरपरिवारले acting गरेको भनेर बुझ्नेतापनि यसमा बुझ्नु के जरूरी छ भने यो आफुले चाहेर निस्कने समस्या होईन । यसमा व्यक्तिको हात खुट्टा लाटो हुनेदेखि लिएर कमजोर हुने, झमझम गर्ने, नचल्ने, बेहोसी हुने आदि हुन्छ ।

Hypochondriasis: यसमा व्यक्तिलाई पहिलेदेखि नै मलाई ठुलो रोग लागेको छ कि भन्ने भ्रम पैदा हुन्छ र त्यसैलाई सत्य मान्दछ । आफ्नो शरिरको संवेदनाहरूलाई गलत अर्थ लगाएर समस्या पैदा गर्दछ । बिरामीलाई मलाई यो बिचारले गर्दा भएको हो भन्ने ज्ञान हुदैन र आफ्नो symptoms मा केन्द्रित हुन्छ र धेरै भन्दा धेरै चिकित्सकलाई देखाएर यो रोग पत्ता लगाउने प्रयास गर्दछ । २० देखि ३० वर्ष सम्मको लागि हुने यो समस्या महिला र पुरूष दुवैलाई बराबर हुने गर्दछ । आफ्नो जिम्मेवारीहरू पुरा गर्न नसक्दा, जीवनमा आएका challenges हरूसंग लड्न नसक्दा यो समस्या आउन सक्दछ भनेर मनोबिदहरूले भनेका छन् । यो महिना देखी लिएर बर्सौ सम्म हुन सक्दछ र जसको personality problem छैन, राम्रो income छ र अचानक आएको symptoms हो, उनीहरूलाई यो राम्रो हुने सम्भावना बढी हुने गर्दछ ।

Body Dismorphic Disorder: यसमा व्यक्तिलाई मेरो शरीरको भाग बांगो छ, बिग्रेको या मिलेको छैन भन्ने महसुस हुने गर्दछ । १५ देखि ३० बर्षको व्यक्तिहरूलाई हुने यो समस्या महिलाहरूमा बढी देखिने गर्दछ । प्रायजसो अविवाहितमा देखिने यो समस्या depression, anxiety disorder/psychosis संग जोडिएर पनि आउन सक्दछ । यो समस्या शरीरको कपालमा-६३%, नाकमा-१५%, छालामा-१५%, आखाँमा-८% बढी हुने गर्दछ ।

Pain Disorder: यसमा व्यक्तिको कुनै एउटा भागमा दुख्ने गर्दछ । केहि व्यक्तिहरूले आफ्नो तनाबहरू दुखाईबाट प्रकट गर्दछन् । प्रायलाई ढाड दुख्ने, टाउको दुख्ने, अनुहार र गालाहरू दुख्ने आदि हुने गर्दछ ।

Depression is Treatable

Signs and symptoms

Insomnia
Irritability
Hopelessness
Fatigue
Restlessness
Diminished interest or pleasure in activities.
Problems with concentration or thinking clearly
Persistent sadness
Excessive sleeping
Feelings of guilt or worthlessness
Overeating/loss of appetite
Thoughts of suicide

Types

Major Depressive Disorder
Severe symptoms that interfere with out ability to work, sleep, study, eat and enjoy life

Persistent Depressive Disorder
Depressed mood that lasts for at least 2 years

Postpartum Depression
Depression brought on by hormonal and physical changes and the new responsibility of caring for a newborn.

Seasonal Affective Disorder
Onset of depression during the winter months, when there is less natural sunlight; the depression generally lifts during spring and summer.

Common Causes

Biological | **Psychological** | **Environmental** | **Genetic**

By the numbers

6.6% of adults age 18 or older had a major depressive episode in 2014 (NSDUH, 2014)

11.4% of adolescents age 12-17 had a major depressive episode in 2014 (NSDUH, 2014)

Women are nearly **2x** as likely as men to experience depressive episode (NIMH)

From **2004 - 2012** more service members were hospitalized for depression than any other category of mental disorders (MSMR, JUL 2013)

Common Treatments

Cognitive Behavioral Therapy (CBT)
recognize unhealthy thinking patterns and change them in a structured way

Problem Solving Therapy (PST)
face and to learn and apply structured problem-solving techniques to relieve depression

Interpersonal Therapy (IPT)
identify and solve current interpersonal problems - with your family, friends and/or co-workers

Anti-depressant Medications (ADM)
correct chemical imbalances in the brain that occur when a person is depressed

Undifferentiated Febrile Illness and Antibiotic

Dr. Augraj Uprety
MBBS (Dharan), MD-Medicine (PGI, Chandigarh)

We all had been facing huge number of patients with febrile disorder, mounting up the number of tropical fever in these hot and humid climates, especially after rainfall. Managing them all was, a bit bothersome to us. Undifferentiated febrile illnesses (UFIs) are a common clinical problem in Nepal which is defined as a fever without a focus of infection on initial physical examination or in basic laboratory tests. Fever which presents with localization, clenches the clinician near about to a working diagnosis; but fever without localization makes us always in dilemma. We had typically made a mnemonics of LEMDS-I for it (Leptospirosis, Enteric fever, Malaria, Dengu, Scrub and Influenza) on our alma matar, on basis of prevalent disease. Thus basically, knowledge of the most prevalent disease on the environment carries the prime importance. Secondly, the next important thing is the proper history with pattern recognition of the disease which we are suspecting. And yet, symptoms and physical signs lack accuracy and precision to rule in or rule out a specifc infectious disease causing UFI. But, the important approach for us would be syndromic approach as such; fever-rash syndrome, fever-jaundice syndrome, fever-altered sensorium syndrome, and fever-arthralgia syndrome which can help us to reach to a differential diagnosis.

Influenza generally presents as headache with severe myalgia, malaise, feverishness, chills, and the accompanying upper respiratory symptoms, mainly cough and sore throat. Fever increases rapidly within first day of illness and is then followed by gradually decrement over 2–3 days, but myalgia and malaise persists. Antibacterial therapy is just misused at this point of time, when UFI, is always been treated as a blanket approach of management, which never does improve the course of disease; inspite it spreads antimicrobial resistance in the society. On patients who have chronic disease and are >65 years old, complications of the disease occurs but that can be sort out on the basis of clinical deterioration.

Dengue fever also present in same fashion except of some features as unbearable myalgia, retro-orbital pain along with transient macular rash appears on the first day. At about 3rd to 5th day, on time of defervescence maculopapular rash starts to develop on the trunk and spreads to the extremities. Of note is that, bleeding tendency of dengu occurs in defervescence phase, not that in acute febrile phase.

Enteric fever, Leptospirosis, Scrub and Malaria have about similar pattern of presentation. Except for that enteric fever has syndrome of fever, headache and generalized abdominal pain. Fever at start is of continous pattern which changes to step ladder pattern, but its not actually present at clinics now because of antipyretics taken by patients of their own. Scrub typhus typically has eschar; a localized necrotic skin lesion, present among one-third to two-thirds of patients, at the site of their infecting chigger bite is almost considered diagnostic of scrub typhus. Scrub also has high propensity of lungs and liver involvement. Malaria fever has typical pattern of fever with chills, according to the species involved. Leptospirosis has similar presentation in mild form, but at the severe form presents as ARDS, renal failure and as Acute Liver Failure mimicker.

Misery in management of UFI is that, we don't have serological test positivity early in the course of the disease, where we are confused with the patterns of the presentations. Garima et. al. has studied about 2547 UFI patients in Dehradun, India, from December 2012 to November 201

3; which showed Dengue (37.54%); enteric fever (16.5%); scrub typhus (14.42%); bacterial sepsis (10.3%); malaria (6.8%); hepatitis

A (1.9%); hepatitis E (1.4%); leptospirosis (0.14%); as the cause of UFI. In the severe form, where we are bound to use blanket therapy, misuse of the antibacterial drugs on milder forms won't help us a lot because maximum of the UFI, practically are viral in origin. In top of it, we still are lagging up with the study regarding UFI on our set up.

Winner of Meditime 22nd Issue

- Dr. NB Thapa, ENT (Specialist), Butwal Hospital
- Dr. Gaurav Chhetri, Internal Medicine, Biratnagar
- Dr. Sabina Shrestha, Obs/Gynae, Ohm Hospital, Ktm
- Dr. Ram P. Basyal, MD, Physician, Bhairahawa
- Dr. Satyam Rimal, Pediatric, Lalitpur
- Dr. Aruna Sayami, Dermatologist, Butwal
- Dr. Rakesh Mandal, Orthopedic, Lahan
- Dr. Abhilasha Shah, Int. Medicine, Ktm

World Antibiotic Awareness Week,
(13-19)th November, 2017 : Think Twice Seek Advice

HANDLE ANTIBIOTICS WITH CARE

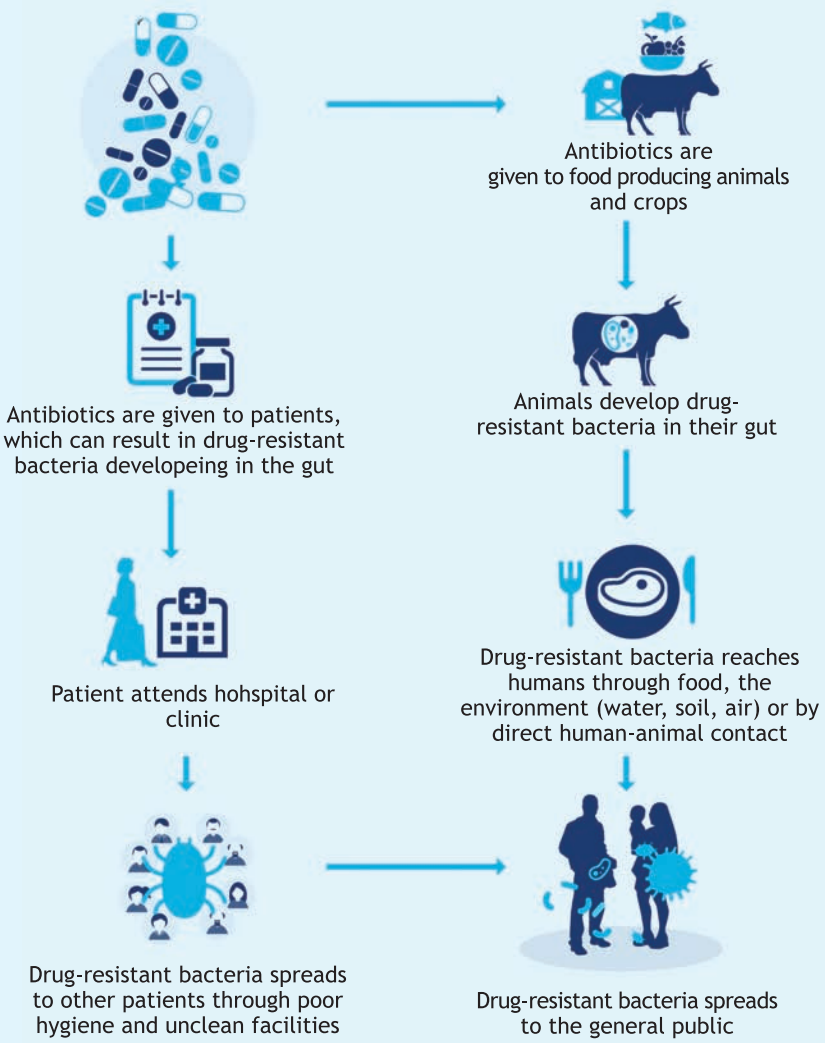
Infographics: Antibiotic resistance

Causes of Antibiotic Resistance

Antibiotic resistance happens when bacteria change and become resistant to the antibiotics used to treat the infections they cause.

- Over-prescribing of antibiotics
- Poor infection control in hospitals and clinics
- Lack of new antibiotics being developed
- Patients not finishing their treatment
- Lack of hygiene and poor sanitation
- Over-use of antibiotics in livestock and fish farming

Antibiotic resistance happens when bacteria change and become resistant to the antibiotics used to treat the infections they cause.



Antibiotics Save Lives, Ensure they work when we need them.

Examples When Antibiotics are Urgent and Necessary

- **Sepsis**
- Bloodstream Infections
- Bacterial Meningitis
- **Bacterial Pneumonia**

www.who.intlcampaigns

मधुमेह सम्बन्धि केहि जानकारी

World Diabetes Day November 14th, 2017

मधुमेह भनेको के हो ? मधुमेह कसरी हुन्छ ?

अङ्ग्रेजी शब्द "डाइबेटिज" लाई नेपालीमा मधुमेह भनिन्छ । मधुमेहलाई चिनीरोग पनि भन्ने गरिन्छ । हामीले खाने सबै खानेकुराहरु पेटभित्र पुगि चिनी (ग्लूगोज) मा परिणत हुन्छ । उक्त चिनीलाई शरीरले इन्धनको रुपमा प्रयोग गर्दछ । हामीले खाएका खानेकुराहरुबाट उत्पादन भएको चिनीलाई शरीरका कोशीकाहरु तथा अंगहरुमा पुऱ्याउने काम "इन्सुलिन" ***(Insulin)*** ले गर्दछ । जब हाम्रो शरीरमा "इन्सुलिन" नामक हर्मोनको मात्रामा कमी आयो वा यसको काम गर्ने क्षमतामा कमी आयो भने हाम्रो रगतमा चिनीको मात्रा बढ्न पुग्छ र सो अवस्थालाई चिनी रोग भनिन्छ ।

मधुमेहका किसिमहरु के-के हुन् ?

मुख्य तः मधुमेह २ प्रकारका हुन्छन् । ती हुन् टाइप-१ र टाइप-२ ।

टाइप-१ भनेको इन्सुलिनमा भर पर्ने मधुमेह हो । शरीरले इन्सुलिन उत्पादन गर्न नसकेपछि यो रोग लाग्दछ । यसको उपचार भनेको इन्सुलिन सुईको प्रयोग र उचित खानपान नै हो ।

टाइप-२ मा चाहीं प्यान्क्रियाजले ***(Pancreas)*** इन्सुलिनको उत्पादन गरे पनि त्यो शरीरका लागि चाहिने मात्रामा हुदैन अथवा उत्पादन गरेको इन्सुलिनले राम्ररी काम गरेन भने यो रोग लाग्न सक्छ । टाइप-२ डाईभिटिज ४० उमेर कटेकालाई लाग्ने बढी सम्भावना हुन्छ ।

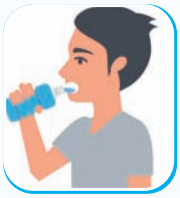
परिक्षण *(Test)*

क) फास्टिङ ब्लड ग्लूकोज ***(Fasting Blood Glucose):*** ८ वा १२ घण्टा खालि पेट बसेर रगतमा ग्लूकोजको परिक्षण गर्ने प्रत्रिया :
सामान्य ***(Normal) :100 mg/dl*** भन्दाकम
मधुमेह ***(Dibeties) : 126 mg/dl*** भन्दा माथि

ख) पोस्टप्रान्डियल ***(Post Prandial) :*** खानाखाईसकेको २ घण्टा पछि रगतमा ग्लूकोज परिक्षण गर्ने प्रत्रियाः
सामान्य ***(Normal) : 140 mg/dl*** भन्दा कम
मधुमेह ***(Diabeties) : 200 mg/dl*** भन्दा माथि

मधुमेहका लक्षणहरु के-के हुन् ?


बढी भोक लाग्नु


बढी तिर्खा लाग्नु

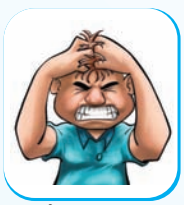

रिङ्गटा लाग्नु


दुब्लाउँदै जानु


छिनछिनमा पिसाब लाग्नु


छाला सुख्खा हुनु

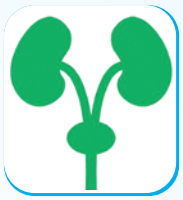

हातखुट्टा झमझमाउनु


झर्को लाग्नु


घाउचोट चाँडै निको नहुनु

मधुमेह र यसबाट हुने जटिल समस्याहर के-के हुन् ?


मुटुको समस्या


मृगौला सम्बन्धि समस्या


आँखा सम्बन्धि समस्या


खुट्टाकाट्नु पर्ने समस्या

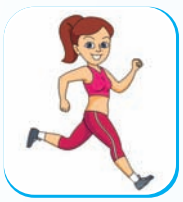
मधुमेहबाट बच्ने उपायहरु के-के हुन् ?


मोटोपन नियन्त्रणमा राख्ने


रेसायुक्त खानेकुरा खाने रातोमासु कम खाने


धुम्रपान नगर्ने

गुलियो खानेकुरा कम प्रयोग गर्ने


नियमित शारिरिक व्यायाम गर्ने

Dimple Creation

Dr. Narmaya Thapa
Professor,
Dept. of ENT-HNS, TUTH

Dimple adds beauty and attractiveness to ones face. It will also give a more prominent look to our face and add confidence. In some Asian countries it is thought to be a sign of fortune and good luck. Natural dimples are due to fibrous attachments of the dermis of the cheek skin to the underlying cheek muscles of facial movement especially Zygomatic major muscle. When smiling occurs, the upward pull of these muscles causes a dimple in the cheek to occur.

In order to enhance facial beauty dimple can be created surgically by a simple and easy procedure. Dimple creation can be done under local anaesthesia in outpatient basis. This procedure will take hardly about 30 minutes. Dimple can be created in one side of cheek or both sides at a time.

Technique of Dimple Creation

The ideal position of a dimple is in the contact point between horizontal extension line from the angle of mouth and vertical line drawn through the lateral canthus as shown in the figure. It can be vertical or circular. However, location and shape of dimple creation should be confirmed after discussion of surgeon and patient.

A very small incision about a centimeter is made on the inner side of the cheek ie. on the buccal mucosa upto the muscle. Then an absorbable suture is passed at the position where the dimple is intended to be created. In case of chubby cheek, some tissue from the inner side of cheek is removed. A surgical knot is tied. Mucosal incision is closed with same suture material. At first there is a dimple present even without smiling, but after few weeks, the dimple is only present while smiling.

Fig.Ideal Location for Dimple Creation

Complications

Serious complications are very rare, however, following complications can occur.

- Injury to buccal branch of Facial nerve
- Injury to Stenson's duct
- Bleeding
- Numbness
- Bruising
- Oedema
- Haematoma
- Foreign body reaction

During procedure care should be taken not to injure buccal branch of Facial nerve and Stenson's duct. After the procedure there will be numbness for few hours. There will be some swelling and bruising on the cheek for few days, which goes off with cold compress. Patient should be advised not to injure incision site during brushing.

A course of antibiotic, analgesic and antiseptic mouth gargle should be prescribed.

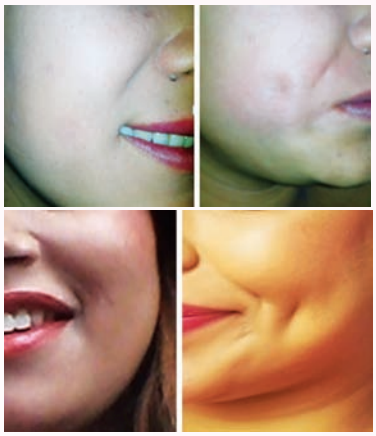


Fig. Photos before & after dimple creation

References

1. *A. R. Lari and Nikhil Panse.Anatomical basis of dimple creation – A new technique: Our experience of 100 cases, Indian J Plast Surg. 2012 Jan-Apr; 45(1): 89–93. doi: 10.4103/0970-0358.96593.*
2. *Seema Singh, Rajesh Kumar Singh, and ManojPandey. Nasolabial flap reconstruction in oral cancer. World J SurgOncol.2012; 10: 227. Published online 2012 Oct 30. doi: 10.1186/1477-7819-10-227.*

Eye, Teapot, Hot dog, Hammer, Plate

BRAIN TEASER

1. *What starts with E ends with E and has only one letter?*
2. *What starts with T ends with T and is full of t ?*
3. *What kind of dog never bites?*
4. *Forwards I am heavy. backwards I am not. What am i ?*
5. *People buy me to eat, but never eat me. What am I ?*

Lucky winner will Get Surprise Gift From TIME Pharmaceuticals

Winner Pictures

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Dr. Bivek Aryal

Dr. Ghanashyam Kharel

Dr. Indra Upadhaya

Dr. Surendra Suman

Dr. Shankar Laudari

Dr. Sudeep Man Vaidya

Dr. Sharmila Sharma

Dr. Jebina Lama

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

Last date of "Brain Teaser" answers Submission : *15th Dec. 2017*

RESPONSE FORM

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Birthday : _____ Anniversary Day: _____

Comments : _____

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BOD Members during BOD Meeting at Europe.

Participation at Update on Respiratory Medicine and Workshop on Non-Invasive Ventilation, 2017

Participation in Prostate Cancer Awareness Programme, 2017

Happy Moment of Nexus Award Winners during Annual Sales Meeting 2073/74

Team Cosmo during Annual Sales Meeting 2073/74

Team Time during refreshment at Chandragiri Hills after Annual Sales Meeting 2073/74

Team Genesis during refreshment at Chandragiri Hills after Annual Sales Meeting 2073/74

Friendly Match, Doctor Vs. TIME Family at Biratnagar

Annual Sales Meeting 2073/74 at Hotel View Bhrikuti, Godawari

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5
10

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