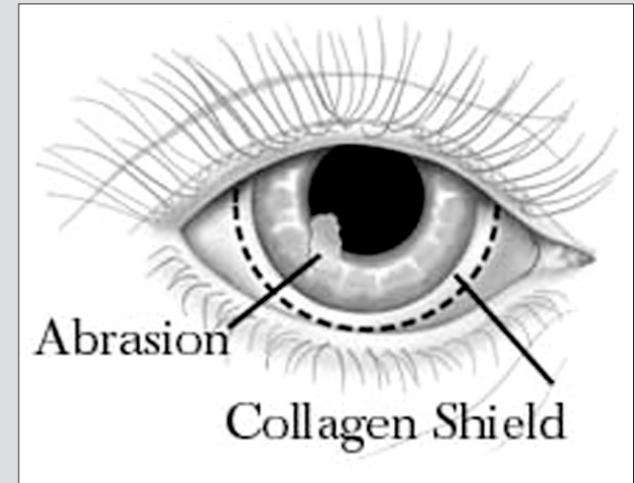




Corneal abrasion (scratch)



The most common types of eye injury involve the cornea the clear, protective "window" at the front of the eye. Contact with dust, dirt, sand, wood shavings, metal particles or even an edge of a piece of paper can scratch or cut the cornea. Usually the scratch is superficial, and this is called a corneal abrasion. Some corneal abrasions become infected and result in a corneal ulcer, which is a serious problem.

Use clean water or saline solution to rinse the eye. Use an eyecup or small, clean glass positioned with its rim resting on the bone at the base of your eye socket. If your work site has an eyerun station, use it to run lukewarm tap water over the eye or splash the eye. Rinsing the eye may wash out an offending foreign body. Blink several times. This movement may remove small particles of dust or sand. Pull the upper eyelid over the lower eyelid. The lashes of the lower eyelid can brush a foreign body from the undersurface of the upper eyelid. Take caution to avoid certain actions that may aggravate the injury. Don't try to remove an object that's imbedded in the eyeball. Also avoid trying to remove a large object that makes closing the eye difficult. Don't rub your eye after an injury. Touching or pressing on the eye can worsen a corneal abrasion.

Did you know?



Vitamin-rich diet cuts risk of vision malady

REUTERS, Chicago

A vitamin-rich diet lowers the risk of contracting macular degeneration, the leading cause of blindness among the elderly in developed countries, researchers said.

The antioxidant properties of vitamins C and E, beta carotene and zinc were found to ward off macular degeneration, in which abnormal blood cells grow in the eye and leak blood and fluid that damage the center of the retina and blur central vision.

Sufferers are often debilitated and unable to read, recognise faces or drive, and the condition worsens with age. It affects more than one out of 10 white adults over the age of 80, and is the leading cause of severe vision loss in 60 and older.

There is no cure, although an earlier study found taking high doses of vitamin supplements could slow the condition's progression.

The eight-year study involved more than 4,000 older residents of Rotterdam, in the Netherlands. It found those whose diets included more than the median levels of vitamins C and E, beta carotene and zinc had a 35 percent lower risk of developing macular degeneration, compared with those whose diets provided a below-median level of any of the four nutrients.

Participants with a below-



A vitamin-rich diet lowers the risk of contracting macular degeneration, the leading cause of blindness among the elderly in developed countries.

Change in lifestyle has tremendous role to reduce low back pain

DR MD SHAH ALAM

Low back pain is estimated as the leading cause of chronic disability in the community. More than three quarters of the world's population experience back pain at some time in their lives.

Clinical features

The common physical signs especially of mechanical low back pain are local tenderness over the spine, postural changes.

Management

Conservative treatment is most likely the course of action for back pain. Although back pain can be debilitating, the pain improves without surgery in most cases (85-90%). Physicians usually recommend 6 to 12 weeks of conservative therapy before considering surgery. Explanation reassurance along with simple analgesics, bed rest and physiotherapy for a definite duration can ameliorate most episodes (85-90%) of mechanical low back pain. More severe cases (10-15%) may require surgical intervention.

Non operative treatments: Non operative treatment usually involves relieving the inflammation around the nerve. Mild cases of back pain often respond well to rest or anti-inflammatory medication such as NSAIDs. Other conservative treatments include physical therapy, steroid injections, traction, ultrasound, electrical stimulation, acupuncture, heat or ice and massage. Patients often are advised to change their lifestyle.

1. Hot or cold: Hot or cold packs or sometimes a combination of the two can be soothing to

chronically sore, stiff backs.

2. Exercise: Although exercise is usually not advisable for acute back pain, proper exercise like flexion, extension, stretching, aerobics can help ease chronic pain.

3. Medications: A wide range of medications are used to treat chronic back pain. They are usually analgesics and nonsteroidal anti-inflammatory drugs (NSAIDs).

Muscle relaxants and certain antidepressants also prescribed for chronic back pain. The combination of Vitamin B1, B6 and B12 are also used to block the pain pathway and ultimately may relieve the low back pain.

But all medications should be prescribed by a registered physician.

4. Traction: Traction involves using pulleys and weights to stretch the back. Traction pulls the vertebrae apart to allow a bulging disc to slip back into place.

5. Corsets and braces: They are designed to limit the motion of the lumbar spine, provide abdominal support, and correct posture.

6. Behavioral modification: Developing a healthy attitude and learning to move the body properly during daily activities. Adopting healthy habits, such as exercise, relaxation, and regular sleep, and dropping bad habits, such as smoking and eating poorly will also help to get rid of pain.

7. Injections: When medications and other non-surgical treatments fail to relieve chronic back pain, injections are recommended for pain relief.

Operative treatments: Role of surgery
Operative treatment is required in



The author with a patient of low back pain.

10-15% cases, when conservative approach fails after a definite period of treatment or persistent pain and signs of neurological compression exist. The purpose of surgery is decompression and stabilisation of spine and restoration of maximum functional state.

Prevention: Correct posture

Posture is the position to hold the body upright against gravity while standing, sitting or lying down. Posture is just as important as a good diet, exercise and sleep, but is rarely discussed as a health issue. Good posture encourages our muscles, joints and ligaments to work as nature intended.

Standing: While standing, it is advised to keep the body straight with ears, shoulders and hips vertically aligned. Shoulders should not be rounded inwards or

tilted forwards. Hips should not be flexed or hyper-extended. Abdomen should be tucked in. Abdominal muscles should be used to keep the chest lifted and back supported.

Sitting: While sitting the back and thighs should be at a 90-degree angle. Back should be straight, the hips in a neutral position and feet flat on floor. The chairs that support the lower back with proper seat height and seat depth should be used. Sitting in a slouched posture will hurt the back. In order to prevent frequent twisting of the back, a rotary chair can be used. It is advised to avoid prolonged cross-legged sitting.

Lying: While sleeping, it is advised to sleep on a firm mattress to support the back. It should be about 2 inches thick, on a wooden board. If required, one can put a pillow or a rolled up towel under the knees when

sleeping on the back. when Sleeping on the side, knee should be bent, perhaps with a pillow between them. It is advised not to sleep on the stomach.

Daily activities: Bending the body forward puts a lot of stress on the spine. In daily activities, it is important to protect the spine by always keeping it straight. Instead of bending the back, bend the knees. This applies when carrying a heavy load or even when merely tying the shoelaces or picking up small objects. After bending movements, it is advised to maintain the natural curve of the spine.

Lifting and transfer: The proper and safe method for lifting and maneuvering objects is to squat to lift the box, then stand up straight, and turn with feet to place it on the table. To put less strain on the spine, it is advised not to twist the body when the back is bent. While getting out of bed, it is advised to turn to the side first. Then put both the feet on the floor and then get up by pushing both hands on the bed. The reverse process should be used when lying down in bed.

Exercise

Appropriate exercise helps to maintain back health and general fitness. Through exercise, the strength and flexibility of the back can be maintained or improved. However, if the exercise is performed incorrectly, one might hurt one's spine. The structure of the spine is very complicated and back pain can be difficult to cure. Therefore proper posture is very important in keeping the health of the spine. Physiotherapist can advise for proper treatment and appropriate exercise to relieve the pain. Exercise guideline for lower

back is given in the page 12.

Back pain during pregnancy

Back pain is prevalent in approximately 80 percent of women who are pregnant. This pain may start during pregnancy, or within three weeks of delivery. Usually during the third trimester, 50 percent of pregnant patients will experience back pain. The cause of pain is probably related to a combination of mechanical, metabolic, circulatory, and psycho-social contributing factors. Most probably cause is due to a change in hormonal influence that causes change at the insertion point of ligaments to the bone.

In most cases, pain does improve certain period after delivery. Patients are instructed to avoid excessive weight gain, exercise to strengthen the back muscles, maintain correct posture and to wear sensible shoes (not high heels). Treatment options are available including a pelvic belt, exercise, appropriate rest, medication, massage and standard back exercises. Bed rest and exercise appeared to be the best treatments resulting in that rapid recovery of 65 percent.

Conclusion

Regarding low back pain, change in life style and exercise has got a tremendous role. Most of the cases can be improved by conservative treatment. In our country now a days the outcome of surgery is really auspicious.

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Proper medical waste disposal

PROF DR MD TAHMINUR RAHMAN

Biological and medical waste are important hazards for the environment and they cause the spread of some dreadful diseases. It is therefore important for the diagnostic laboratories, hospitals, clinics to dispose these material in scientific ways. Otherwise improper and unscientific disposal of these medical waste will create serious public health problem and environmental pollution.

What are the medical waste?

Medical waste includes the following:

Sharps materials e.g. glass wares, syringes, needles, blades, plastic material like disposable gloves etc.

Biologically cultured stocks and plates like culture plates, media, human blood, different body fluids like sputum, CSF, stool, urine, pus, different scraping like skin scraping for fungus and tissues.

All clothing - bed sheets, cotton, bandage, dressing material used by the patient.

The usual practice of medical waste disposal in our country now is to dump these material in some places, throw it in the dustbins or pour the blood and other body fluids into the basin, sewerage.

clinics should be enacted. Foreign constancy and visit to different countries abroad to see observe the system may be advocated, if needed.

Secondly it should made mandatory for all labs, hospitals, clinics to buy and install incinerator for proper medical waste disposal. The lab, hospital, clinic authority must employ qualified people to supervise this and oversee that this is followed strictly, properly. Violation of the rule should be punished, even registration may be cancelled.

Thirdly the Ministry of Health and Family Welfare can appoint some authority or body to collect these medical waste from different hospitals, labs, clinics for proper disposal. They will supply all labs, hospitals, clinics proper bags/container with different colors, marked with bio-hazard safety and other signs. The concerned lab, hospital, clinic will instruct their employees to put the medical waste in specific container designed and when it is full they will end it to a central place or store from where they will collect these medical waste and take it away to specified place for disposal under their supervision. The labs, hospitals, clinics will pay for this service. This will prevent these menace. The Municipal Corporation authority may be approached for this. They will follow the same criteria described above for the medical waste disposal.

Creating Public awareness is a must to present this condition. Radio, television, different media, local dailies and public relation department should create different live programme, documentaries, write on different aspect of medical waste, its hazard as environmental and spreading of diseases and how to prevent it.

What are the hazards if medical waste is not disposed off properly?

Environment pollution - decomposition of plastic material will pollute the environment.

Water and sewerage system

may be contaminated with infectious agents of hepatitis A, hepatitis E, typhoid and paratyphoid, cholera, diarrhoea, food poisoning, worm infection leading to anaemia and malnutrition. Infection with hepatitis virus will cause jaundice, inflammation of liver leading to the complications of chronic liver diseases.

The used disposable plastic syringes, needless if not incinerated or burnt - these items will be collected by the tokais (Street Urchins), homeless, jobless people and these items will be sold to drug users, other clinics, labs, hospitals or plastic industry for reuse. These items are important source of spreading HIV (AIDS), hepatitis B (HBV), hepatitis C (HCV) infections which are responsible for chronic liver disease leading to cirrhosis, liver cancer and liver failure.

So it is evident that the spread of these dreadful diseases are due to improper medical waste disposal and cause serious public health problem and involve huge money in terms of treatment, diagnosis and loss of working hours, family and social burden, which are not at all accepted in a developing country like ours.

Proper disposal

The labs, hospitals, clinic authorities must have some empathy for their patients.

It can be said that medical waste disposal is a serious environmental issue and immediate measures should be taken by the government, NGOs, donors to address the problem, formulate new laws with provision for fine, jail. It can ensure better health for us. The sooner we do this the better is for the peoples health.

The writer is a Professor and Head of Pathology of Ibrahim Medical College, Segun Bagicha, Dhaka.

Facts about Buerger's disease

STAR HEALTH DESK

Buerger's disease is a disease characterised by a combination of acute inflammation and clotting of the arteries and veins in the hands and feet. The obstruction of blood vessels in the hands and feet reduces the availability of blood to the tissues causing pain and eventually damaging or destroying the tissue. It often leads skin ulcerations and gangrene of fingers and toes.

Causes

Buerger's disease is greatly associated with heavy to moderate tobacco use (both cigarette and smokeless). Smoking triggers an autoimmune response in which the immune system produces antibodies that attack the body's own tissues. The arteries in the leg, hand and sometimes those in the arms become inflamed, reducing blood supply to the tissues.

Who is affected by Buerger's disease?

Buerger's disease usually affects men between ages 20 to 40, who smoke or chew tobacco. Recently, however, more women and men over the age of 50 have been diagnosed with Buerger's disease. Socioeconomic conditions, working environment may also play in etiology of the disease. It is seen more in out door and manual workers. Hepatitis B Virus and ricketts may contribute to the pathogenesis. This disorder is still very uncommon in children, but it may occur in those with autoimmune diseases. Though "passive smoking" has adverse effect on cardiovascular system, non smokers should never develop the



disease.

Symptoms

Symptoms of reduced blood supply to the arms or legs develop gradually, starting at the fingertips or toes and progressing up the arms or legs, eventually causing gangrene. People may feel coldness, numbness, tingling or burning before their doctor sees any signs of the disease. Patients often have get muscle cramps in the arches of their feet or in their legs but rarely in their hands, arms or thighs. With more severe obstruction, the pain is worse and lasts longer. Early in the disease, ulcers, gangrene or both may appear. The hand or foot feels cold, sweats a lot and turns bluish; this is due to the crying of dying nerves. Symptoms may worsen with exposure to cold or emotional stress. Pain may increase with activity such as walking and decrease with rest. Pulse may be decreased or absent in the affected limbs.

Diagnosis

Buerger's disease is often masked by a wide variety of other diseases that cause diminished blood flow to the hands and feet. Because of this, other disorders must be ruled out with aggressive evaluation. An angiogram or an arteriogram of the upper and lower limbs or Doppler ultrasound may detect blockage of blood vessels in the hands and feet. Skin biopsies are also done. Active smokers can be identified by measuring levels of nicotine.

Prevention and treatment

To avoid the onset of Buerger's disease, men should avoid tobacco use. Avoiding cold will reduce the risk of symptoms developing in those who already have the disease. There is no cure for Buerger's Disease. The only effective treatment is to stop smoking. If an affected individual continues to smoke they're very likely to need amputation of toes or fingers. Infections should be treated promptly.

Do's and don't

The goal of the treatment of Buerger's disease is to control the symptoms. We can take some measures to manage the disease and reduce the severity. We should massage the affected area gently and keep it warm to increase circulation. Always we should avoid cold. Because it reduces circulation to the limbs, sitting or standing in one position for long periods can also enhance the severity of the disease. We should not walk barefoot and do not wear tight or restrictive clothing. As a final point, always consult a doctor and report all injuries for appropriate treatment.