The Official Magazine of Baliga Diagnostics Pvt. Ltd.



Magazine™

Pain /

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Message From The Editor

Welcome to our October edition of Sowkhya Magazine[™]. It is with great pride and pleasure that I announce a successful year since we started publishing this newsletter. I would like to thank you from the bottom of my heart for making this an exciting and successful journey.

In this month's edition of the magazine, we talk about a troublesome symptom that we all experience on a regular basis - pain. Pain is often an indication of an underlying problem and should never be ignored. Here, we talk about why we experience pain and what simple steps that one can take to relieve the symptoms.

We also have spoken about irritable bowel syndrome – a common problem seen in clinical practice and a nuisance to the patient. Included also is a section on the health benefits of milk, and why I believe we should all have a glass of milk a day.

As always, I hope you enjoy this edition of the magazine. Our anniversary edition is out soon, so please keep a look out for our email and Facebook announcement!

Milk - Are You Getting Your 'Glass-A-Day'?

The consumption of milk (and milk products) begins from the very minute that we are born all the way to the daily die. In fact, it is an essential part of our diet. But did you know what the real benefits and contents of milk are?

In this article, we shall briefly review the health benefits of milk and why we feel all of us must get our 'glass-a-day'.

Nutritional value

One cup of milk is considered to be equivalent to one serving of milk. The nutritional value of milk depends upon the type of milk that is being consumed. For example, cow's milk and buffalo milk have different fat content which means the nourishment that they provide

is different. Having said this, milk contains certain common elements that are in high quantities and can provide the essential nourishment the body requires.

- 1. Calcium Maintains healthy teeth, bones, blood vessels and nerves.
- 2. Choline Regulates our sleep, increases memory power and keeps cells healthy.
- 3. Potassium Maintains normal heart muscle contraction and health

In addition to the above essential nutrients, milk has many more positive effects on the body. In a nutshell, it maintains bone health, heart health, brain health and nerve health. Some studies have shown that it can prevent the development of bowel cancer and depression. The protein content in milk can help build muscles, which is why it is consumed daily by athletes.

The nutritional values of milk depend on the source. The table below details the common differences between different kinds of milk. (1 glass = 250 ml)

Nutrient (per glass)	Cow's Milk	Buffalo's Milk	Goats Milk
Calcium	276 mg	510 mg	327 mg
Protein	8 gm	11.4 gm	9 gm
Fat	8 gm	21 gm	10 gm
Calories	175 kcal	250 kcal	168 kcal

Dairy and dairy products

Milk can be transformed into numerous delicious products like cheese, butter, ghee, paneer, curds and milk powder. Milk is used in making sweets and savoury items as well. Many milk products are rich in calcium and nutrients, but watch out for added salt and other preservative agents. So be aware of what you are consuming as while these products may have certain health benefits, they are not ideal in people with high blood pressure, high cholesterol and those trying to lose weight.

Diseases transmitted from milk

Did you know that milk can transmit diseases? This is particularly relevant for people who drink milk that is not pasteurised. Organisms such as *Bacillus cereus, Brucella, Campylobacter jejuni* and *Coxiella burnetti* are all causes of various milk borne diseases – some of which are extremely serious. Always make sure you drink pasteurised milk as this process kills all the disease causing organisms.

Storing milk

Always keep milk in the refrigerator. With every minute that it is left outside, it gets a little bit spoilt. Keep milk covered at all times. Milk can be frozen for up to 6 weeks but it usually separates out when it is thawed.

So if you haven't started yet, why not get your 'glass-a-day'?



Editor

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Pain – A Troublesome And Annoying Problem

We have all experienced pain at some point in our lives. It is an annoying and troublesome problem that has the capacity of taking over our lives. Pain can be due to numerous causes and here we shall explore what exactly pain is, why it occurs and how it can be managed.

What is pain?

Pain is an experience of discomfort that is triggered by irritation of the nervous system. It has been defined in numerous ways depending upon a situation but in a physical sense, pain is a 'highly unpleasant physical sensation that is caused



by illness or injury'. Of course, there are other kinds of pain such as emotional pain and mental pain which we shall not discuss here. Some people tolerate pain a lot better than others – the reasons are unknown.

You may be interested to know that the word 'pain' probably originates from the French word 'piene', though the Latin word 'peona' meaning punishment or Greek word 'poine' meaning penalty could also be the original sources.

Types of pain

There are different types of pain depending on how fast the symptoms start and how long they last for. Acute pain is an intense pain that starts suddenly and lasts for only a short period of time. Chronic pain describes pain that has lasted for prolonged periods of time (usually over a month).

Pain can originate from different structures in the body and accordingly they have been given different names. For example, visceral pain originates from organs such as the kidneys and bladder and neuropathic pain originates from nerves. Heart pain is called angina while bowel pain is described as 'colic'. Inflammatory pain can arise from infections and abscesses. The stimulation of special pain receptors in the body can cause a condition called nociceptive pain. Pain that arises from the bones, ligaments and skin is called somatic pain.

Why do we feel pain?

Pain is a way that the body tells us that something is wrong. For example, if we suffer an injury to the bottom of the foot and did not experience any pain, we would continue to walk over that injured area damaging it further. This can lead to the wound becoming infected. An infected wound can be troublesome and can make an individual very unwell. In a way, pain is a warning sign and must not be ignored.

We experience pain because of stimulation of nerve fibres and the release of a specific substance called the 'p' substance. The p-substance is responsible for irritating the nerve fibres and causing pain. The mechanism is of course are a lot more complicated than this but in simple terms, an injury or disease can irritate nerves and cause pain.

How can we manage pain?

The best way to manage pain is to avoid injury of any sort by being extra careful. Of course, despite every attempt at taking adequate care, many of us do suffer from injuries or some form of diseases that can cause pain. Simple strategies such as icepack application of heat pack application can help. Most cases can be easily dealt with through the use of over-the-counter painkillers such as paracetamol or ibuprofen. However, in patients who have severe illnesses such as cancer, the pain can be quite bad and special painkillers such as morphine-based painkillers may need to be prescribed.

It is strongly recommended that all patients suffering from pain that does not seem to be getting better with simple painkillers visit their practitioner for further guidance and advice. In particular, patients were suffering from chest pain must seek medical advice as soon as possible as this could be indicative of a heart attack. Patients who develop severe pain in the abdomen may have problems with internal organs and must visit their physician as soon as possible.

In the rare cases, patients who suffer from chronic pain may need to see a specialist in pain management therapy. There are numerous drugs that can be administered but these must be given in a controlled manner.

The History of Anaesthesia

Anaesthesia (derived from the Greek word meaning 'without pain') is a field of medicine where either a gas or a drug is given to the patient to knock them out before surgery. The history of anaesthesia is quite remarkable. Take a look at the short paragraph below –

'The case was an interesting one of a white swelling, for which the thigh was to be amputated. The patient was a youth of about fifteen, pale, thin but calm and firm. One Professor felt for the femoral artery, had the leg held up for a few moment to ensure the saving of blood, the compress part of the tourniquet was placed upon the artery and the leg held up by an assistant. The white swelling was fearful, frightful. A little wine was given to the lad; he was pale but resolute; his Father supported his head and left hand. A second Professor took the long, glittering knife, felt for the bone, thrust in the knife carefully but rapidly. The boy screamed terribly; the tears went down the Father's cheeks. The first cut from the inside was completed, and the bloody blade of the knife issued from the quivering wound, the blood flowed by the pint, the sight was sickening; the screams terrific; the operator calm'.**

Before anaesthesia was discovered, methods that caused a great deal of pain and suffering to the patient during surgery were being used. In the ancient Chinese culture, wine that was mixed with herbal extracts was sometimes used as an anaesthetic agent. Opium was used by the ancient Egyptians. As time progressed, newer agents such as nitrous oxide (laughing gas) were used with some success. In 1847, James Simpson, a Professor of Obstetrics in Edinburgh, started using chloroform. Due to the side-effects that it had, it was withdrawn fairly quickly. In 1877, cocaine was used as a local anaesthesia and was injected under the skin and into the spinal column before surgery. Morphine was also used as a painkiller and anaesthetic agent.

In the more recent years, induction agents have emerged which when injected into a patient puts them to sleep very quickly. In the 1920s and 1930s, barbiturates were used for this purpose. In the 1950s, halothane, an inhaled anaesthetic, was used with great success. Tremendous advances have now been seen and newer agents provide an anaesthetic affect in a safe and effective manner.

Irritable Bowel Syndrome – Understanding the Facts

Having a healthy bowel means having a healthy life. Unfortunately, many of us are affected by irregular bowel habits with some of is experiencing difficulty opening the bowels (constipation) and some experiencing loose motions (diarrhoea). In India, there is a large group of patients who experience bouts of constipation that alternate with diarrhoea. Some may

experience prolonged periods of constipation while some may have only loose stools for many days. This condition is called irritable bowel syndrome (IBS).

What causes IBS?

Many cases of IBS do not have an identifiable cause. It is believed that the control that the brain has on the bowels is lost for some reason. The presence of certain infections can also cause IBS. Individuals who have taken multiple courses of antibiotics are at a higher risk of developing IBS. Stress appears to be one of the triggers and in some cases the presence of a family history of IBS can play a role.

The symptoms and clues that can help aid making a diagnosis of IBS are listed in the table on the right.

*** Clues that you may have IBS ***

1. You have multiple episodes of pain in your abdomen.

2. The pain is associated with altered bowel motions – either diarrhoea or constipation.

3. You feel better after you have had a bowel motion.

4. You have periods of diarrhoea that alternate with periods of constipation.

5. You constantly feel bloated or feel your abdomen is swollen.

Diagnosis

As such, there are no specific diagnostic tests available that will confirm IBS. The clinical history from the patient and examination findings are usually enough to make a provisional diagnosis and to start treatment. Infections and other causes will need ruling out and patients may require tests such as stool culture and possibly endoscopy tests.

How is IBS treated?

Patients who have diarrhoea as the predominant symptom (called IBS-D) may require anti-diarrhoeal medication. Patients with constipation as the main symptom (called IBS-C) are advised to increase their fibre and fluid intake. Stool softeners and laxatives may help. Patients who have abdominal pain may require drugs that reduce bowel spasm. A healthy diet and regular exercise are essential to maintain bowel health. If you suffer from IBS, make sure you see your physician as soon as possible.

Weird Indian Superstitions!

We were scouring the internet to look for some odd Indian superstitions that relate to health. We have to admit – some of the ones we came across were shocking, and some disturbing. Take a look at a few that we found.

1. Getting bitten by dogs can make you give birth to puppies. 'Puppy-pregnancy syndrome' has even been documented in the world renowned *Lancet* journal!

- 2. Eating sea-food with milk causes a skin condition called vitiligo.
- 3. Hair and nails grow after we die. Not true in any sense.
- 4. Eating cold food or drinking cold drinks causes a cough and cold. There is no basis for this at all.
- 5. Drinking warm water in the morning clears out the impurities in the body. All this does is come out of the body as urine.
- 6. Doctors giving the patient the medicine with their own hand, then the treatment will work a lot better.

As shocking as they are, myths are prevalent and will be for years to come.

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Great minds discuss ideas; average minds discuss events; small minds discuss people.

-Eleanor Roosevelt