

## SAVE BIRD SPECIES

It is unfortunate that one time best friends of the humans, the household sparrows have gone missing especially in urban dwelling sites thus giving a setback to ecology of the region as hardly one finds this species of bird in Jammu city or in its outskirts. This is a big question that where these chirping little creatures have gone as there are no instances of any special things challenging their existence in the city. The experts themselves are not very clear often blame loss of habitat for the extinction of these small creatures from Jammu as new buildings lack nesting provisions but this could not be the exact reason as still there are quite a good number of trees in Jammu where these could live and flourish their families. Though no proof is yet evolved but several people claim that mobile towers forced these avian family members to leave cities and move out to forests but the assertion is just a vague idea as no scientific proof is there to support this idea as well. It's important to save sparrows by installing nest boxes, bird feeders, planting native plants and reducing use of chemical pesticides and fertilizers. This seems an easy way out but in reality it is very difficult thing as people don't have time to talk to their own children these days. Use of heavy doses of pesticides in kitchen gardens and fields resulted in the decline of invertebrate fauna. Small insects play a very important role in the survival of newborn sparrows. Thus this fact can be attributed to end of house sparrows in the city areas. There is still a big hope that these small chirping birds will come back soon but for this residents have to take some small initiatives like making provisions for nests in the houses, stop use of dangerous pesticides and providing food to the birds as and when possible. These small steps can prove very useful or else the days are not far when the remaining bird species will also disappear from the scene.



**The Fear of Death -**  
**Shukdev Muni**

King Parikshit had been cursed by Sri Rishi that he would die in the next 7 days with a snake bite as he had disrespected his father. To reverse this curse King Parikshit sought help from Shukdev Muni. Muni ji told him that the curse cannot be reversed and his death is unavoidable. Shukdev Muni narrated the Holy Gita as a means of redemption during these final days of the King's life so that he could leave with peace. But the fear of death continued to overwhelm the king and Shukdev Muni decided to pause The Gita and instead narrated a short story.

People tend to focus more on the Puranas

Stories and legends are an integral part of the moral education in our country. The Puranas use simple stories or incidents to get the core message across. There are many such legends in the Puranas and there are 18 Puranas, along with their 18 sub-Puranas. The legends of the Puranas became so popular that people overlooked the Vedas, the primary source of knowledge from where the ancient stories originated. People tend to focus more on the Puranas because they impart knowledge in a simple and realistic form through stories. The knowledge that you acquire through a story! a small medium, may not be easily understood through a mantra or scriptural verse. Shukdev Muni also decided to narrate a story so that the king could overcome the fear of death from a snake bite.

There was a king, said Muni Shukdev! who had lost his way in the jungle. His bodyguards too could not keep pace with him. So, he was left alone and as the evening dawned a storm also ensued making it impossible to find his way back to the palace alone. It was windy and dark at night, and he did not know where to go and seek shelter. In a distant he saw a lamp burning in a hut.

He followed the light and entered the small shack. He couldn't see anyone there except an extremely foul smell each around. He called out, "Is anyone here?" A voice from inside said, "It is my hut and I am a hunter but too weak to get up. I live in this jungle in this hut by myself." The king said, "Well, dear brother. I want to stay here for the night but is there some place here where there is no foul smell. You have spread garbage and filth all around this place."

The hunter asked him to come a bit closer

When the king came near, he saw that he had skinned the animals and their hides were hanging from the roof. He had waste all around. It was giving foul smell. The king did not have any other place to go. So, what else could be done! The king said, "Well, friend! Kindly let me rest for the night in a corner

**-Shri Sudhanshuji Maharaj**

# Anaesthesia specialists leaders in critical care medicine

■ DR SATYA DEV GUPTA

The terminology of Anaesthesia and Anaesthetist remained as an enigmatic discourse for the general public and of course the persons at the helm. They were aloof from the importance and vivid implications of this highly technical speciality, till the mass killer pandemic of Covid-19 laid its dreaded claws of death on the hapless world population residing in highly developed, developing, backward and poor nations. The persons who had fallen prey to this disaster needed Oxygen therapy from experts who were well-versed in advanced treatment of high proficiency.

These experts are the anesthesiologist or Anaesthetist, and experts in chest medicine.

Anesthesia specialist doctors can do wonders as and when their services are utilized and they are at the forefront as an emergency physician, resuscitation, treating long-term pain pathology, and providing painless labour conditions in full-term pregnant women.

It is a paradox that most of the patients when admitted in hospital for surgical intervention like to choose the surgeon specialist of their choice and don't care to know about the anesthesiologist under whom they renders his life for the performance of surgical.

Advent Of Painless Surgery: (a) The speciality of Anaesthesia to start with had a motive to provide an environment for painless surgery.

This was introduced on 16th OCTOBER 1846 by dentist William T.G Morton of Boston in his first public demonstration at Massachusetts General Hospital by using sulphuric ether (diethyl ether) on Edward Gilbert Abbott for an operation by a leading surgeon John Colin Warren Professor of anatomy and surgery at Harvard Medical School Boston.

The reports of these operations where patients were made senseless by the administration of ether were published in newspapers, medical journals and other personal correspondence from Boston.

This event of the discovery spread far and wide in Europe and the rest of the world.

The other heroically advanced development came in form of the use of muscle relaxants (muscle-blocking drugs).

Henry Dale in 1933 studied the transmission of nerve impulses to muscle through a neurotransmitter named acetylcholine and further research for drugs that can block this transmission and could paralyze muscle was eventually developed by Harold Griffith and Johnson. This drug was d-tubocurare.

Now the basic requirement for surgical interventions i.e. sleep or senseless (Hypnosis), pain-free condition (Analgesia), and muscle relaxation (muscle blockers) was possible. In 1878 MacEwen was the first to introduce the technique of passing a tube into a windpipe (endotracheal intubation for anaesthesia) to isolate the windpipe for good ventilation and avoid aspiration of debris.

Now with the advent of muscle relaxants, this procedure is easily done. (b) Local And Regional

Anaesthesia: By its name, local and regional anaesthesia produces insensibility and relaxation to a part and region of the body by interrupting the conduction of nerve impulses.

This technique was first introduced by William Stewart Halsted in 1885 by self-experiment by injecting cocaine near a nerve trunk.

He was successful in his experiment but himself got trapped in cocaine addiction. It took 2 years to recover from its jaw.

Later new safe drugs were introduced which changed the scenario. Local blocks, nerve blocks, regional, spinal, and epidural anaesthesia were the outcome.

The birth of the Intensive Care Unit (ICU): The major advances came out in 1952 in Denmark when the outbreak of poliomyelitis engulfed the kids in that country and Copenhagen was an epicentre of one of the worst polio epidemics that the world ever saw. Bjørn Aage Ibsen, an anesthesiologist had a radical idea. His

## WORLD'S ANAESTHESIA DAY

idea was to blow air directly into the lungs to make them expand with a bellows (Ambu bag) and then allow the body to passively relax and exhale.

He proposed the use of tracheotomy: an incision in the neck, through which a tube goes into the windpipe and delivers oxygen to the lungs. This type of breathing is called positive pressure ventilation. The mortality which was 87 per cent dropped to 31 per cent. This adventure gave birth to mechanical ventilation, Ventilators, a new concept of Anesthesia, and intensive services.

Anesthesiologist and critical care or ICU: (a) The anaesthesia doctors take care of patients who have severe infections and trauma, or those groups of patients who are posted for major surgery, may it be Cardiac, Thoracic, Neuro, Gastrointestinal, Organ transplant, etc in preoperative, peri-operative and post-operative period. (b) In ICU the Anesthesiologist works as an intensivist, which is a critical care doctor who manages the entire treatment and coordinates with other specialists as and when required.

The intensivists are well versed with all the technical know-how of other visiting experts and serve round the clock for the patients bound to stay in ICU for few hours to months together. (c) In ICU the patients are seen to have intravenous lines Central, peripheral or both for fluid administration and a set of electronic gadgets for monitoring vital parameters like (a) ECG, the electric activity of the heart (b) Blood pressure (c) Blood oxygen saturation (d) Respiratory rate (e) Heart rate (f) Temperature (g) furthermore the instrumentation of complex vitals for measuring Heart output, contractility, vascular peripheral resistance and some occasions for evaluating the brain functions.

Sometimes the patients are put on Ventilators for assistance in the maintenance of breathing functions. (d) Anesthesiologist working in critical care medicine

perform a pivotal role in for maintenance of the well-being of admitted patients.

They supervise the ICU team and coordinate with concerned surgeons, physicians, physiotherapists etc. Boosting The Safety: Soon after the inventory of anaesthesia in 1846, there is a chain of developments one after the other which were aimed at further improvement and advancement for the safety of the patients.

Upgradation of technology, especially in the last several decades particularly in the electronic field, lead to improvement in monitoring the subject's vital signs not only in operation theatre or intensive care sectors but also in the discipline of emergency medical services.

It gave an impetus to serving anesthesiologist to standardize the monitoring system pertaining to hemodynamics of blood flow, pressure, heart electrical activity (ECG), functions, respiratory well-being (oxygenation status), urine output, core temperature, degrees of neuro-muscular block etc.

With the advancement of modern technologies new standards for safety, and patients have emerged.

Those are: (a) AIMS (Anaesthesia Information Management System). This system is based upon a powerful decision-support toolkit with real-time clinical guidelines which is capable of predicting any untoward event long before it happens. (b) AL (Artificial Intelligence).

This will revolutionize the patient monitoring system with EWS (Early advanced warning system) that exercises wireless surveillance to leverage algorithm (data with human applied clinical rules) for pattern identification feeds to a computer system for detecting any variation in data reflecting any unpleasant incident that may happen and automatically galvanize the required intervention to reduce the mortality and morbidity to almost zero level by the immediate action of rapid response teams. (c) WHD (Wearable Home Devices).

These procedures are based upon the activity of bio-sensors in connection with ECG electrodes, and triple-axis accelerometers which detect any variation in vital parameters like heart rate, rhythm, breathing, temperature, steps and body position if in any case patient likely to fall.

These bio-sensors can detect an asthma attack before it happens. There are other devices which help make the early diagnosis and sketch the health condition of the patient including cardiovascular imaging, preoperative. Ingestible sensors and drug-device combinations are likely to monitor medication activity and effectiveness. It is beneficial to patients having dementia and or some mental illness, and consumption of illegal drugs, as monitoring is made possible by close relatives.

With the help of Artificial Intelligence and the use of modern sensors the safety of the patients during operation, in intensive care sectors, and in emergency medical services is better than before and future stores the significant outcome where mortality shall be zero.

(The writer is Ex-HOD, Intensive Care Unit & Anesthesia, GMC Jammu).

# Combating Food Loss and Waste

■ DR. BANARSI LAL

Every year World Food Day is celebrated on 16th of October across the globe to highlight the millions of people who cannot afford a healthy and nutritious diet. The theme for 2022 is Leave no One Behind. This year the World Food Day is marked in a year with multiple global challenges such as climate change, conflicts, COVID-19 pandemic etc. This day is led by The Food and Agriculture Organisation.

This day is celebrated in remembrance of the day when the Food and Agriculture Organization (FAO) of the United Nations Organization (UNO) was founded in 1945.

The primary objective to celebrate this day is to tackle the global hunger and strive to eradicate hunger across the globe.

This day is celebrated by various organisations concerned with the food security with full enthusiasm and people commit together to eliminate hunger and poverty from society.

This day reminds us that we should take action for the eradication of hunger and poverty.

World Food Day was established by Food and Agriculture Organization (FAO) member countries at the Organization's 20th General Conference in 1979. The idea of celebration of World Food Day was given by Dr. Pal Romany, the then Minister of Hungary for Agriculture and Food.

On this day awareness on eradication of hunger and poverty from the society is created among the people.

The reasons behind hunger and poverty are acknowledged.

The celebration of this day helps in increasing awareness on the effective agriculture and food policies to mitigate the food problem.

This day is also celebrated as the food

engineers' day. On this day several organisations guide the people about the use of safe and healthy food and avoid the fast food.

As the impact of the COVID-19 pandemic has hit countries across the globe, the World Food Day calls for the global solidarity to help the most vulnerable people recover and make food systems more sustainable.

India is at first rank in milk production and second in fruits and vegetables after China in the world.

But India is the world's biggest waster of food and a high proportion of the food that India produces never reaches to the consumers.

Food is wasted from the point of production to the final consumption. The food wastage represents wastage of various resources used in production such as soil, water, seed, fertilizers, labour etc. Food wastage has various socio-economic and environmental impacts.

Food is very scarce for the many poor people but luxury for many rich people.

A good amount of wasted food can be fed to many hungry people. About 14 per cent of India's population is undernourished. Child malnutrition is a chronic and longstanding problem in India.

The bane of child and maternal malnutrition is responsible for 15 per cent of India's total disease burden. 37.4 per cent of Indian children are stunted and 21 per cent are wasted. Stunted children are those who have a low height for their age, reflecting chronic undernutrition. The crisis of child malnutrition in India has often been attributed to historical antecedents such as poverty, inequality and food shortage.

India launched the POSHAN Abhiyan, a flagship national nutrition mission to improve the nutrition among the children, pregnant women and lactating mothers in 2017.

Poshan Abhiyan aims to reduce the malnutrition among the children by facilitating inter-departmental convergence, real-time monitoring, intensified health and nutrition services for the first 1000 days.

Children malnutrition in India is a complex problem that needs a systematic overhaul of the public administration and service delivery system.

Some innovative interventions are needed to address this issue.

Between 33-50 per cent of all food produced globally is never eaten and the value of this wasted food is worth over \$ 1 trillion. 1 person out of 9 on the planet are malnourished or starved.

Each of them can be fed sufficiently if we can avoid the wastage of food.

With the wastage of food various inputs and natural resources are also wasted. For example, 25 per cent of water is wasted even as millions of people still don't have access to drinking water and 300 million barrels of oil is also wasted to produce the wasted food.

Moreover, manpower and electricity are also wasted.

Food wastage also causes land degradation by 45 per cent due to deforestation, unsustainable farming practices; excessive ground water extraction etc. Food wastage is the national economic loss. According to the sources, India loses around 58,000 crores due to food wastage annually.

Food decay also causes emission of harmful gases. For instance, decaying of paddy causes methane production.

Food wastage has a major impact on the climate change.

Food wastage should be avoided in order to provide the food to the poor people.

The initiatives like India Food Banking Network are assisting to provide the food to the poor people.

stances The business of adulteration is seen everywhere. From milk sellers and adulterants to well-known companies have captured the adulterant market. The truth is that whatever we are eating, all those things are getting adulterated.

According to doctors and health experts, such fruits are very harmful for health. Paraffin wax (wax) is also being applied to make the fruits bright.

Eating these fruits causes diseases like cancer and diarrhea.

Oxytocin is being used a lot in dairy and agricultural products, especially raw vegetables.

Adulteration is considered a serious crime in our country. If adulteration is proved, the accused is sentenced to life imprisonment under section 272 of Indian law.

Loss of eyesight and disability are also suffered. When the adulteration is proved, sometimes the news about the arrest of small-time adulterants is read and heard, but the people who do the wholesale trade of adulteration often stay away from the reach of the law.

Vijay Garg,

## YOUR COLUMN

### Adulteration in the festive season

Dear editor,

As soon as the festive season begins, people have started preparing vigorously to celebrate the festival at their own level all over the country. On festivals, everyone buys new clothes, ornaments, sweets and fruits according to their own approach. India has a tradition of celebrating festivals with laughter and joy.

From Dussehra to Diwali, there are about a dozen small and big festivals in the month of October. All festivals are rooted in our folk culture. We have been singing, dancing and singing since the beginning. And have been celebrating their festivals with food and drink. As the festive season begins, from gold to the kitchen, goldsmiths also get active. Mixing everything has become commonplace.

A festival is incomplete without sweets. It cannot happen that the festival comes and we do not eat sweets. Sweets double the festive cheer.

Adulterers also wait for the same, their shops are decorated with colorful sweets and we buy those sweets without checking. Adulterant high profits. The adulterers are not even afraid of the rules and regulations.

Especially the mixing of impure, cheap and unnecessary things in food and drinks is called adulteration.

Today in the society, adulteration is seen everywhere. From water to gold, the adulteration market has shaken our very foundations, earlier only water in milk and vegetable (dalda) in domestic ghee was heard of, but today almost everything in the household is used.

Mixing is getting mixed up.

It means the mixture of extraneous, artificial or other bad things in natural elements or substances. Profiteers dream of becoming rich overnight.