



You don't have to **STOMACH IT.**

There are ways to combat Peritoneal Cancer
and come out of it smiling !

see page.2

Editor's Note

Welcome to the new normal



The new normal is yet to sink in as the world continues to grapple with the COVID 19 pandemic. The market is flooded with face masks promising more protection than the yet-to-be developed vaccine and with hand sanitizers in a hundred scents, perfuming your palms and cleansing them at the same time. It is important for citizens to understand and adhere to basic measures of precaution without falling prey to commercialization of the pandemic.

Choose a mask in a fabric that is comfortable to breathe in. Be sure to wash and dry the mask (depending on its fabric) regularly. Wash your hand with soap and water upon contact with fomites. Keep a hand sanitizer on your person when stepping out of your house. While shopping or at work maintaining social distancing is imperative. In spite of following these basic precautions should you develop one or more COVID 19 symptoms such as fever, sore throat, cough, loss of taste/smell contact your physician and seek advice to get tested at an authorized COVID testing centre immediately. At our hospital also, we are examining such patients and test them to rule out COVID-19 positivity.

We are pleased to announce that our hospital is fully functional and completely equipped to treat patients tested positive for COVID 19. Our Infection Management Team is trained to handle the patient in whatever stage of the disease they get admitted in. The hospital strictly follows Government Prescribed protocols in administering treatment to them and to ensure that patients coming to consult doctors for other ailments are not exposed to COVID positive patients in any way. As an additional support system, in view of the intermittent lockdowns and transport problems, online consultation has been made available on our website for the convenience of the patients.

In this issue of Medinews, our cover story deals with Peritoneal Cancer – a condition that affects the peritoneal layer in the stomach. Dr. Rajkumar P – Surgical Oncologist at Dr.KMH sheds some light on the condition and available procedures to treat it. TechSpace this time throws light on the LINAC which is used in radiotherapy for cancer treatment. In our Women's Health Feature, Dr.Jayanthi clearly puts forth the main uses of Ultrasound Sonography in following the development of the fetus enabling early recognition of birth defects.

My note would be incomplete without my reference to our COVID Warriors (see page 4) who are braving the pandemic and going all the way at the frontline in treating and helping patients recover from COVID-19. A million thanks to all of them. Their selfless and dedicated service will be remembered forever.

Medinews is aimed at educating readers on modern medicine to help you take informed decisions at your hour of need. Read on. Get empowered.

Dr. T. G. Govindarajan

Founder, Chairman & Managing Director

Cover Story

Peritoneal Cancer, Demystified

Cancer can strike any part of the human body except hair and nail. However, upon early detection most types of Cancer are treatable and curable. Our focus now is on Peritoneal Cancer. Dr. Rajkumar P is the Surgical Oncologist at Dr. Kamakshi Memorial Hospital.

Q: What is the Peritoneum?

Dr: Peritoneum is a complex film like intra-abdominal organ which comes most other intra-abdominal organs. It is meant to protect organs such as the intestines, uterus, liver bladder and rectum. It produces a fluid that keeps these organs lubricated.

Q: What are the causes and symptoms of Peritoneal Cancer?

Dr: Often Peritoneal cancer is secondary to spread from cancers of ovary, stomach, colon and other intra-abdominal organ. Cancer originating from the Peritoneal surfaces are rare and present similarly. Common symptom include Abdominal distension, Nausea, Vomiting, Weight less, feeling of early satiety (feeling of fullness of stomach)

Q: How much do we know about the peritoneum in order to treat the cancer?

Dr: A few decades ago the importance of this organ was taught less and understood even less. However, the peritoneum has drawn much attention in recent years as most of the abdominal organ cancers at some point of time will have peritoneal spread. Better understanding of its anatomy, lymphatic supply, blood supply and the circulation of peritoneal fluid, has allowed innovative surgical and medical procedures to achieve better cancer control and cure rates even in the event of advanced spread of the cancer. Common cancers like colon, ovary, gastric, uterus, do present with peritoneal metastases either synchronously or metachronously. Until a few decades back this subgroup of patients were subjected to only palliative chemotherapy or supportive care.

Q: Tell us about HIPEC as a treatment option.

Dr: HIPEC is Hyperthermic Intraperitoneal Chemotherapy. Here preoperatively proven colon, stomach and recurrent ovarian cancer with peritoneal disease are subjected to radiological assessment to determine the extent of the cancer. Based on this, curative surgery is planned. After complete removal of all grossly visible disease, the peritoneal cavity is subjected to HIPEC where the Peritoneal cavity is exposed to specific chemotherapeutic drugs at a temperature ranging between 42-44 C circulating for period of 60-90 min with temperature probes constantly monitoring the temperature and fluid circulation.

Q: What about PIPAC and EPIC?

Dr: PIPAC is Pressurized IntraPeritoneal Aerosol Chemotherapy. It is used in advanced peritoneal cancer patients with intractable ascites. Here chemotherapy is sprayed as aerosol into the peritoneal cavity using special sprayers without exposing the toxic drugs to the operating team. Significant Ascitic control can be achieved to palliative advanced peritoneal cancer recurrence with Ascites. EPIC is Early Post-operative Intraperitoneal Chemotherapy and is used during the early post operative period to achieve better cure rates.

At Dr. Kamakshi Memorial Hospital HIPEC treatment has been given to patients under the guidance of Dr. Rajkumar P. On an average the required days of hospitalization is 14 days with 3 to 4 days of intensive care. The Oncology department has dedicated staff working night and day to help patients battle this tough disease, with the help of advanced modern medical treatment.



Dr. RAJKUMAR P
MBBS, MS (Surgical Oncology)

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Women's Health

First trimester screening & its benefits

Ultrasonography has consistently become a milestone in obstetric management of all trimesters of pregnancy. It's non-invasiveness, non-ionizing nature, real imaging potential, afford ability, fetal amenability, and bed sidedness is in contrast to other radiological modalities. It has rapidly replaced all other techniques used to study normal human development especially in the first trimester. The advent of high-resolution trans-vaginal ultrasound (TVS) has corroborated trans-abdominal ultrasonography (TAS) and has gone further to revolutionize our understanding of the pathophysiology and management of pregnancy. Here are some details and the benefits of early screening of fetal development using Ultrasonography as presented by Dr. Jayanthi.

The First Trimester Screening (FTS)

is a non-invasive pregnancy evaluation, performed at 11th to 13th weeks of gestation includes:

Measurement of Nuchal Translucency , Double marker test, Measurement of Uterine Artery Pulsatility Index, Screening of Ductus venosus, Screening of major cardiac Abnormalities

Ultrasonographic measurement of nuchal translucency (NT)

Nuchal translucency (NT) is the sonographic appearance of a collection of fluid under the skin behind the fetal neck in the first trimester of pregnancy.



Increased fetal NT thickness is associated with:

- Trisomy 21 and other major chromosomal abnormalities.
- More than 50 fetal defects and genetic syndromes.
- Cardiac defects / dysfunction
- Venous congestion in the head and neck
- Altered composition of the extracellular matrix
- Failure of lymphatic drainage
- Fetalanemia
- Fetal hypoproteinemia
- Fetal infection
- Major cardiac defects
- Diaphragmatic hernia

- Exomphalos
- Megacystis
- Body stalk anomaly
- Skeletal abnormalities
- Fetal death

The Double marker test

Biochemical analysis of maternal serum levels of two pregnancy-related proteins:

- Free Beta-HCG (beta-human chorionic gonadotropin) and
- PAPP -A (Pregnancy Associated Plasma Protein-A).



Dr. Jayanthi Govindrajan
Consultant - Radiology
MBBS, DM (RD)

Beta HCG is significantly high in mothers carrying a Downs baby.

Serum levels of PAPP-A in the first trimester of pregnancy are decreased in pregnancies with fetal trisomy 21, 18 and 13.

By combining the results of the ultrasound and blood test (Serum from the same day of NT measurement) along with the maternal age, ethnic origin and weight of the mother, a statistical evaluation of the biochemical parameters gives the NT-adjusted risk calculation which allows an early recognition of Down Syndrome as well as trisomy.

Measurement of uterine artery Pulsatility Index (UTPI):

It provides a measurement of Utero Placental perfusion and high PI implies impaired placentation with consequent increased risk of developing PREECLAMPSIA.

Measurement of Ductus venosus:

A short vessel connecting the umbilical vein to the inferior vena cava, plays a critical role in preferentially shunting oxygenated blood to the fetal brain. Increased impedance to flow in the fetal ductus venosus at 11-13 weeks' gestation, is associated with fetal aneuploidies, cardiac defects and other adverse pregnancy outcomes. Inclusion of ductus venosus blood flow in first-trimester combined screening improves the detection rate for trisomy.

These tests DO NOT diagnose a problem. They only signal further testing. It is important to realize a positive result does not equate to having an abnormality but rather serves as a prompt to discuss further testing. Having a child with birth defects is traumatising for the parents and the infants. So early screening gives the pleasure of happy parentage.

From the Dietitian's Desk

CHICK PEAS SOCCA

INGREDIENTS: Chick pea -200g (powdered), Pepper powder -1/2 tsp, Jeera powder -1/2 tsp, Coriander leaves - 1/4 cup, Baking Powder -a pinch, Salt -1/2 tsp, Oil -1 1/2 tbsp.

METHOD

- Take a mixing bowl and add all the above ingredients, pour warm water into the dry ingredients and whisk until smooth.



- Place a tawa and pour the oil and pour the batter in tawa, close it with lid and wait for 10 minutes in medium flame. Chick pea socca is ready. Garnish it with coriander leaves and serve hot. No side dish needed.

BENEFITS

- Reduces the risk of infection
- Healthy heart, Weight management
- Maintains the sugar level & blood pressure

Serving (per size)

Calories – 173, Protein – 3.5 g, Fat – 12.9 g, Fibre – 0.3 g

TECH SPACE

ELEKTA MACHINE

LINEAR ACCELERATOR

A medical linear accelerator or simply LINAC is a radiation generator used for external beam radiation therapy using high energy photons or electrons for the treatment of cancer. The head of the LINAC is designed with a robust multi-leaf collimator which conforms the radiation beam to a tumour's shape and destroys cancer cells while sparing surrounding normal tissues. Elekta Synergy, the LINAC in our hospital can generate two photon (4 & 6 MV) and five electron (4, 6, 9, 12 & 15 MeV) energies. It is capable of delivering high end modalities like Intensity Modulated Radiotherapy (IMRT) and Image Guided Radiotherapy (IGRT) to all body sites. The radiation treatment is scheduled by the Radiation Oncologist in collaboration with the Medical Physicists. The Radiotherapy Technologist oversees immobilization, CT simulation and treatment delivery after contour delineation, treatment planning, plan evaluation, quality assurance, patient position verification by the oncologists and Physicist. The performance of the LINAC is maintained by the Medical Physicist by stringent and periodic quality assurance protocols that ensure safe and accurate treatment delivery to every single patient.



Covid Warriors that do us proud !



Dr. Priya B
Consultant Internal Medicine



Dr. Anitha Rajeev
Consultant Intensivist



Dr. A Raghavendra Maruthai
Consultant (ICU)



Dr. Ferroz Khan.K
Emergency Medical Officer



Dr. Liminu P
Family Medicine Resident



Dr. MD Sufisujayath Ali
(Family Medicine)



Dr. Maria Susan Abraham
Family Medicine (Resident)



Dr. Monica.K
Consultant - Internal Medicine



Dr. Ramya
Consultant Family Physician



Dr. R. Anitha
Infection Control Manager



Dr. Vidhyalakshmi
Consultant Intensivist



Dr. Thilakh Babu.R
Consultant Intensivist



Dr. B. Omprakash. B
Consultant Intensivist



Dr. Kamakshi
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testimonials

I was admitted to Dr. Kamakshi Memorial Hospital after having tested positive for COVID 19. The Chief Doctor, the nurses and all the staff on duty were efficient and caring. My heart-felt thanks to all of them for helping me recover completely. I am grateful to them for their timely treatment.

- N. Mayakrishnan, Chennai

Over the last few years Dr. Kamakshi Memorial Hospital has been my one stop for any medical consultation or treatment. I was diagnosed with COVID 19. I was admitted to Dr. KMH. They immediately began treatment. The doctors, nurses and all the staff took very good care of me. Their kind words were very encouraging. It is because of their correct and timely treatment, combined with their caring words, that I have fully recovered. Special thanks to Dr. Indumathi and Dr. Anjali for ensuring that I got the best treatment and for monitoring my condition up until discharge.

- VSK Iyer, Chennai



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