What's Up?
@St John's Hospital

Issue 37, December 2nd, 2019

Pediatric Diabetes Awareness Program. PC: Dr. Poornima

world diabetes day

14 November

HE SHALL LIVE BECAUSE OF ME
जीविष्यति मयैवासौ

St John's National Academy of Health Sciences
St John's Medical College Hospital, Bengaluru

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* We now present a fully interactive menu. It works best with Adobe reader application (on computers, mobile phones and tablets)

MESSAGE FROM THE EDITORIAL TEAM

Dear All!

We are happy to release thirty seventh issue of "What's Up? @ St John's Hospital" magazine today.

Diabetes mellitus is one of the most common non communicable disease affecting mankind. India currently represents 49% of the world's diabetes burden, with an estimated 72 million cases in 2017, a figure expected to almost double to 134 million by 2025. It means, that almost every family in our country has a diabetic patient! World Diabetes day is observed every year on 14th November, the birthday of Sir Frederick Banting, who co-discovered insulin along with Charles Best in 1922. The campaign is represented by a ***blue circle logo*** that was adopted in 2007 after the passage of the UN Resolution on diabetes. The blue circle is the global symbol for diabetes awareness. It signifies the unity of the global diabetes community in response to the diabetes epidemic. Our issue this fortnight has blue circles based on the theme of World Diabetes day! Scroll through the magazine to take a note of the several activities by various departments on account of diabetes awareness campaign.

Do not miss the brave fight of a toddler who met with an electrical accident and survived in the section of 'Survivors Corner'. We bust the myth about fake cancer prevention method in the section of 'St. John's Watchdog'.

Please feel free to communicate with us to publish your achievements. Feedback on any section of the magazine is welcome. Happy Reading!!

Editorial Team

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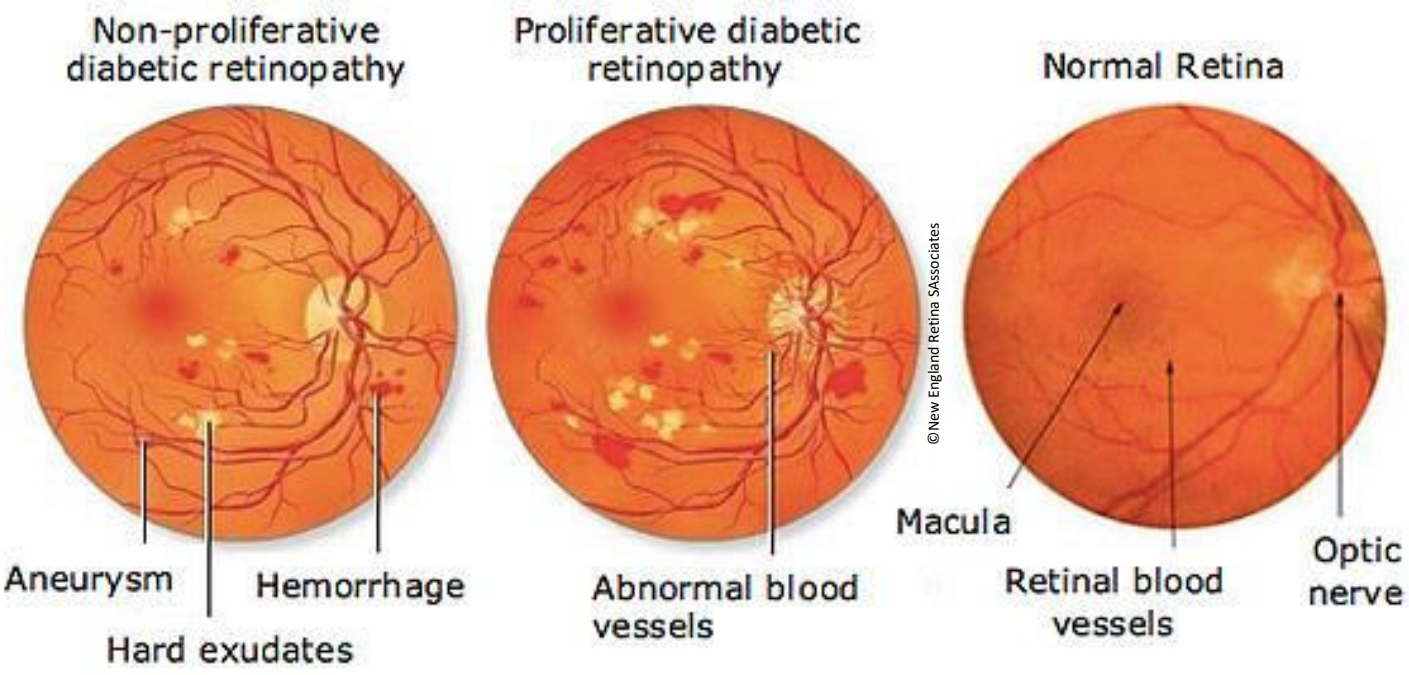
UPDATES THIS WEEK

WORLD DIABETES DAY

Special Note on Diabetic Retinopathy

14th November 2019



World Diabetes Day, is observed on November 14,an official United Nations Day since 2006. The diabetic population in the country is close to hitting the alarming mark of 69.9 million by 2025 and 80 million by 2030. This denotes an increase of 266%.

Diabetes has become the fifth leading cause of blindness across the globe. Diabetic retinopathy is one of the major reasons for visual impairment and blindness among the diabetic patients across the globe. 18% of the diabetic population in India has diabetic retinopathy. A major reason behind this prevalence is the lack of awareness among the patients who fail to achieve timely diagnosis and medical attention. As a result, they develop unnecessary blindness. Considering the fact that only a handful of population undergoes regular eye check-ups and dilated retinal examination, a majority of the cases remain unaddressed and, hence, this results in worsening of the condition.

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DIABETIC RETINOPATHY

Diabetic retinopathy is getting more common among the diabetic population in India because there are limited centers (equipped with retinal lasers and vitrectomy machines) as well as limited ophthalmologists (retina specialists) in the country who are trained to diagnose and treat diabetic retinopathy.

world diabetes day
14 November

The WHO recognizes diabetic retinopathy as a major eye disease that requires urgent attention from professionals and governments. However, according to experts, India has about 12,000 ophthalmologists (approximately 3500 trained retina specialists) against 60 million diabetic patients facing diabetic eye disease

Published epidemiological studies and clinical trials have shown that optimal control of blood glucose level, blood pressure and blood lipids, and hemoglobin can reduce the risk of developing diabetic retinopathy and slow its progression. Timely treatment with retinal laser photocoagulation and increasingly, the appropriate use of intraocular administration of anti-vascular endothelial growth factor (Anti-VeGF) can prevent visual loss in vision-threatening diabetic retinopathy, particularly diabetic macular edema (DME). Since visual loss may not be present in the earlier stages of diabetic retinopathy, regular screening of patients with diabetes is essential to enable early intervention.

For the patients of diabetes, it is important to undergo eye (dilated fundus) examinations and treatment (when necessary). India is suffering tremendously from diabetic retinopathy because of the lack of this approach. With the lack of trained retinal specialists in India and the unaware diabetic population, lack of emphasis by treating physician, the number of affected cases is increasing every day. Another cause of the prevalence of the disease is that a huge portion of the population is affected is dispersed across the country, making it almost impossible for the trained professionals.

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DIABETIC RETINOPATHY

Communication between treating physicians (diabetologist) and ophthalmologists (retina specialist) as well as timely referral can play a pivotal role in patient care, as it serves as a mechanism for providers to educate one another about patients' disease manifestations, adherence to therapy, and treatment plan of diabetic retinopathy.

Societies such as All India Ophthalmologist Society, Academic and Research Committee (AIOS and ARC), vitreo-retinal society of India (VRSI) together with state ophthalmic societies, diabetic associations and diabetes awareness groups play an important role in bringing together the trained and untrained professionals to a mutual platform where they can share their learned experiences, knowledge, and skills. These societies work on a national front, which brings together ophthalmologists (and physicians) from all parts of India and formulate guidelines to address emerging epidemic of diabetic retinopathy.

DIABETIC RETINOPATHY SCREENING IN OUR HOSPITAL

The department of Ophthalmology in our hospital screens for diabetic retinopathy in diabetic patients attending the regular OPD. In addition to this, the department also conducts screening for the in-patients in the afternoon. The department is well equipped with trained ophthalmologists, Fundus camera, Fundus fluroscein angiography(FFA) and Optical Coherence tomography (OCT) for the detection of diabetic retinopathy. The department also offers retinal laser photocoagulation services, intravitreal Anti-VEGF injection and Pars Plana Vitrectomy Surgery for the management of diabetic retinopathy. To cater to the rural population, regular diabetic retinopathy camps are conducted in Mugalur community health centre, Austin town, Huskur and patients requiring treatment are referred back to the base hospital.

In conclusion, let us all on this World Diabetes Day, pledge to spread awareness among diabetic population about the complications of diabetes retinopathy to facilitate early diagnosis and early intervention to combat vision loss.

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World Mental Health Day Programme

30th October 2019

Mental health awareness program at Christ College of Science & Management conducted by the Department of Psychiatry

With October 10th marking the occasion of World Mental Health day, the Department of psychiatry conducted a mental health awareness program at Christ college of Science and Management at Alambady, Bangalore. 350 students from the BA, B.Sc., BCom and BBM courses attended the program. Resource persons for the program were as follow: Dr Ajay Kurien, Dr Samrat Gali, Dr Sister Preethi-Postgraduates, Dept. of Psychiatry; Dr Shalini Perugu, Dr Suhas Chandran- Faculty, Dept. of Psychiatry.

The team discussed issues regarding stress management, self-care strategies for emotional wellbeing in adolescents, mental health disorders such as depression & anxiety, prevention of suicide, internet addiction and responsible social media use. The program was well received with the students being very interactive. The faculty were very enthusiastic and receptive to the suggestions regarding the mental well-being of students. The management indicated a need for more such similar programs in the future.

Diabetic Retinopathy Screening Camp

8th November 2019

Department of Ophthalmology in collaboration with Department of Community Health conducted a Diabetic Retinopathy Screening Camp at Community Health Training Centre, Mugalur on November 8th, considering this month as Diabetic Eye Disease Awareness month.

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World Diabetes Day
14th November 2019

On the occasion of World Diabetes day, on 14th November 2019, the College of Nursing students put up a Health Education programme in the OPD foyer. The Theme this year is '***Diabetes & Family***.' Rev Fr Pradeep Kumar Samad (Associate Director Hospital) was the chief guest. Dr Belinda George (Associate Professor, Department of Endocrinology) emphasised on life style modification & the importance of family support for diabetic patients. The department of endocrinology supported the event by organising free GRBS screening camp. A poster competition was also conducted on the theme by the dept of Endocrinology & cash prizes were awarded to the winners.

Acknowledgement: Mrs. Reena Menon,
Principal, St. John's College of Nursing

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Pediatric Diabetes Awareness Day

16th November 2019

Diabetes day celebration was conducted on 16th November 2019 by Medical social Work department (Ms. Jisha) in association with the department of Pediatrics. The Theme of 2019-"***Its Time to Impact Our Future***". 18 children had attended with their parents. The objective was to bring together the children and their parents to form a support group. The programme involved activities for the children and an opportunity to showcase their talents. The dietician laid emphasis on the diet and interacted with the parents. Pediatric Endocrinologists (Dr. Poornima and Dr. Naina Bhat) from the dept of Pediatrics emphasized on the multidisciplinary management in diabetic children.

Acknowledgement: Dr. Poornima.R.N, Assistant Professor, Pediatrics

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Farewell to Rev Sr Fatima Puthenthiopil (Chief of Nursing Services)

18th November 2019

On 18th Nov 2019 the Academy bid farewell to Rev Sr Fatima Puthenthiopil, Chief of Nursing Services, who has been appointed as the General Councillor of the Holy Cross congregation at Switzerland. Sr Fatima joined SJMCH as Nursing Superintendent in July 2015 & went on to become the CNS in Oct 2016. In her earlier tenure she has served as Principal St John's College of Nursing from 1992 to 1998. The function was graced by all executives of the academy. Rev Fr Pradeep Kumar Samad (Associate Director Hospital) welcomed the gathering while also expressing his gratitude to Sr Fatima. Rev Fr Paul Parathazham (Director, S. John's National Academy of Health Sciences) appreciated the sincere contribution of Sr Fatima to the institution stating that her footprints will remain etched in this institution. Dean SJMC , Principal SJCON & Nursing Superintendent also spoke on the occasion. The director also welcomed Sr Ria Emmanuel the new Chief Of Nursing Services to the academy wishing her success in her endeavour.

Acknowledgement: Mrs. Reena Menon, Principal, St. John's College of Nursing

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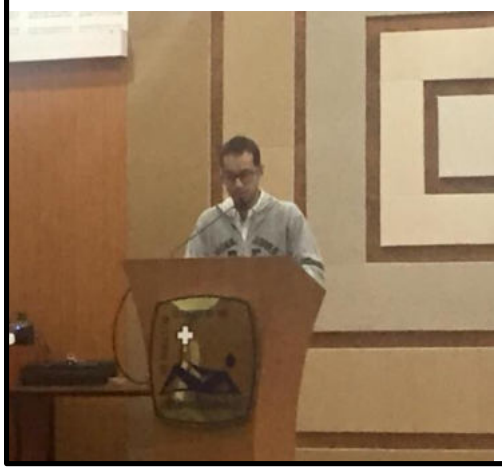
Memorial Service for Dr. A. Ashok

18th November 2019

Memorial service of Dr. Ashok. A (Senior Resident of Department of Orthopaedics) who had a tragic end on 15th November 2019 due to massive myocardial infarction was held on 18th November 2019.



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Staff Cultural Society Meeting

21st November 2019

Annual General Body Meeting and lunch

The Staff Cultural Society organized the Annual General Body Meeting followed by lunch for all the Doctors on 21st November 2019. The retired doctors namely Dr. Usha Kini (Professor, Department of Pathology), Dr. Latha P John (Professor and Head, Department of Anesthesiology) and Dr. Ashish K. Chand (Professor and Head, Department of Neurosurgery) were felicitated during this occasion. The program was graced by Rev. Fr. Paul Parathazham (Director, SJNAHS), and Rev. Fr. Jesudoss (Associate Director Finance). There was fun, frolic & food, and green was the dress color code of the day. The new staff cultural society team for 2019-2021 will be headed by Dr Deepthi Shanbhag (Community Health, President), Dr Soumya (Dept. of ENT, Secretary), Dr Stephen (Dept of Anatomy as Cultural Secretary), Dr Harshith (Dept of Emergency Medicine as Sports Secretary). The members are Dr Kavya (SJRI), Dr Smitha (Dept. of Physiotherapy), Dr. Thenmozhi (Dept of Medicine), Dr John Paul (Dept of Emergency Medicine), Dr. Nancy (Dept. of Community Health).











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Pre-Conference Workshop – ISACON 2019

25th November 2019

Simulations in OR

Department of Anesthesiology is participating actively in the Indian Society of Anesthesiology Annual National Conference 2019, conducted in Bengaluru. The present ISACON in 67th Annual conference. Bengaluru is hosting this mega event after a long gap of 25 years. The Department organised one of the pre-conference workshops in St. John's campus. The workshop was titled as 'Simulations in OR'. The workshop was a grand success.

FRIDAY CLINICAL MEETING

22nd November 2019

Global Antibiotics Awareness week

"Antibiotics Awareness Week: Challenges"

Hospital Infection Control Committee and Department of Microbiology

The program had concise presentations from MICU, PICU and NICU on the trend of antibiogram observed in the last 5 years. The program had a poster competition and ended with a quiz competition for undergraduates and post graduates students.

TAKE HOME POINTS FROM THE PROGRAM:

1. Overall, there is a gradual increase in the antibiotic resistance in the ICUs.
2. Use of recent antibiotics in the last 90 days increases risk of antibiotic resistance.
3. MRSA is no longer only hospital acquired but also community acquired as was detected in a case in PICU recently.
4. Fortunately, MRSA resistant to vancomycin has not yet been detected in these settings in St John's Medical College Hospital.
5. Urine cultures positive for gram negative bacilli viz E.coli that is resistant to all antibiotics except Colistin is a rising concern.
6. Antibiotic prophylaxis for surgical procedures is given 1 hour before the incision (except for few orthopaedic and cardiology procedures with suspected MRSA when it's given 30 mins prior) and continued till 24 hours after surgery.

The Poet

- Dr Om Prakash
(Formerly Emeritus Consultant, St. Martha's Hospital, Bangalore)

There lies a poet in each of us
A bright lad, yet somewhat lazy;
I once asked him, how he does
What others call fine poetry !

He smiled at me and replied,
Well, honestly I wouldn't know,
If indeed I do tell, you'll say I lied !
You just have to let a poem grow !

Just watch the birds, trees, everything
Around you and let thoughts play,
Word-seeds sprout from within, rushing,
And behold, you have the finest inlay !

Can I ask you this, he said gleefully
"Who penned this little one, pray,
Your self are yours truly ?!"

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SEMANTIC DIFFERENTIAL SCALE

The scale was discovered by Osgood, Suci and Tannenbaum in 1967. Semantic differential questions measure people's attitude towards stimulus, words, objects and concepts.

This technique consists of series of contrasting adjective pairs listed on opposite ends of a bipolar scale. The adjective pairs are selected according to the objectives of the survey. The adjective pairs are categorized into three: evaluation (good ---------- bad), potency (Strong ---------- weak) and activity (active ---------- passive).

The scale is commonly used in patient satisfaction survey, customer satisfaction survey, employee survey, marketing research, personality measurements and clinical psychology.

The scale is convenient, easy to administer and provides valid and reliable quantitative data, however it's also time consuming to find appropriate adjective pairs and the relevant concepts.

HIV/AIDS

Cure	1	2	3	4	5	6	7	Death
Social acceptance	1	2	3	4	5	6	7	Social rejection
Normal life	1	2	3	4	5	6	7	Miserable life
Affordable treatment	1	2	3	4	5	6	7	Expensive treatment

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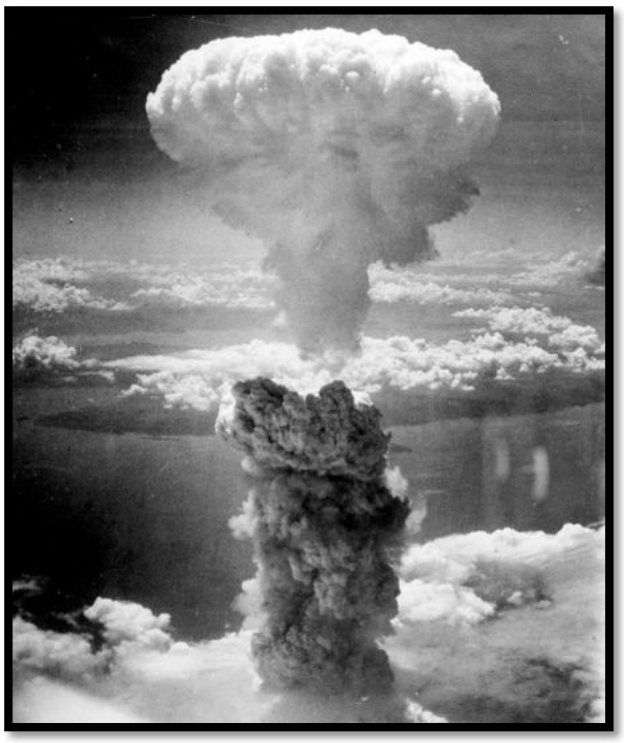
IG NOBEL

1996 - PEACE

Jacques Chirac, President of France

Jacques Chirac, President of France, for commemorating the fiftieth anniversary of Hiroshima with atomic bomb tests in the Pacific.



Hiroshima and Nagasaki were bombed on 6th August and 9th August 1945 respectively. The devastating nuclear bombs took more than 2,90,000 lives in Japan. Aftermath of World War 2, was serious protests from civilians calling for peace and to stop testing and production of nuclear arsenal. In spite of huge protests, France and China carried out their major nuclear tests in the year 1995 very close to the 50th year anniversary.

Mr. Chirac defended the nuclear tests saying "I didn't have any choice," he said. "To get the tests done in time to sign a comprehensive test ban treaty, preparations had to begin in the summer, and if we hadn't announced them, people would have discovered the work going on and accused us of being duplicitous.“ However in January 1996, France gave an official statement that it has ended its nuclear weapons test program for good.

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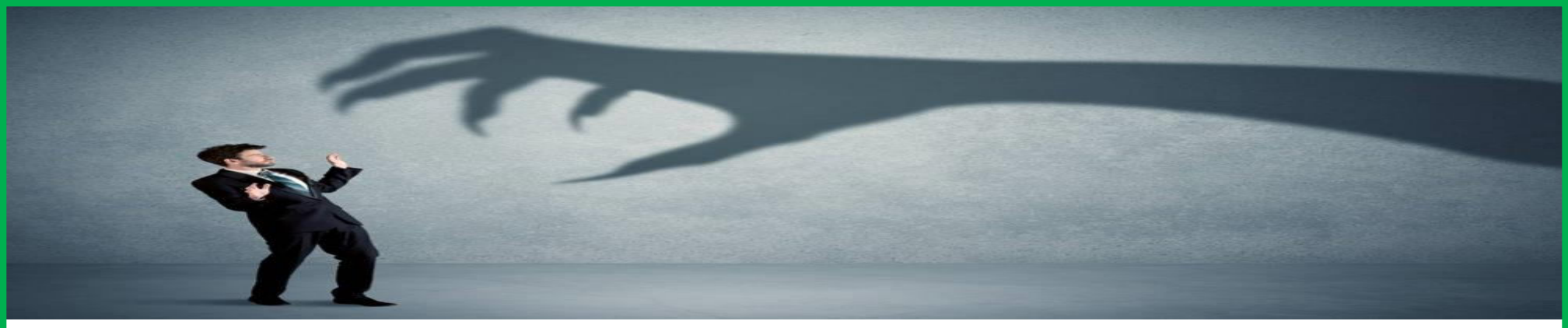
REF: https://www.improbable.com/ig/winners/



SURVIVOR's CORNER

A 5 year old boy wanted to look at a passing train and hence was put on to, what turned out to be, a transformer. He suffered electrical burns involving the entire right upper limb, his right ear and the right side of his scalp. They were 4th degree burns amounting to 15%.

He was immediately brought to St. Johns and was admitted to the PICU. The next day he was taken up for surgery. The little boy required a total of 6 surgeries – multiple debridements, a limb disarticulation and a free flap taken from his lattismus dorsi to cover the defect on his scalp. He lost his arm and the external auditory meatus.

He was in the ICU for over a month, ventilated on and off for at least 2 weeks. There were several complications during his hospital stay including osteomyelitis of his skull bone, polyuria and the challenges of his ear reconstruction to avoid stenosis of the external auditory canal.

He was managed by the plastic surgery team, PICU, ENT, ophthalmology, pediatric nephrology and physiotherapy. After the acute management of his problems, he has issues maintaining balance due the loss of his right arm.

He now is back at school and carrying his school bag on his shoulder stump!

Before the accident

(His hair was to be offered at a temple)

After the Accident

Note: Photographs published with informed consent from the parents

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GREY *Matters!*

The Dr.Jekylls and Mr. Hydes!
DOCTORS AS MUSICIANS!

1. He was the creator and founder of public and special hygiene and also a well known connoisseur of theory of music.

2. This doctor was born in the city of Vienna and was the first to introduce the method of percussion for chest examination!.

3. This doctor was a benefactor of mankind as the discoverer of smallpox vaccine. He is noted as an excellent violinist and flutist.

4. This well known biologist was a violinist and cellist of an outstanding rank.

5. This professor a well renowned surgeon, a pioneer in the surgery of the larynx, the esophagus and the stomach. He was a dreamer and a philosopher, a musician and a poet.

CLICK HERE FOR ANSWERS

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Any stage of cancer can be cured without medicine!

Background – In this issue, we focus on a viral hoax message circulating on WhatsApp with the Title, "**Any stage of cancer can be cured without medicine**" – proven by 3 Nobel prize winners.

Details – The message shows the pictures of 3 Nobel prize winning scientists – Dr.Otto Warburg (1931), Dr.Ferid Murad (1998) and Dr.Yoshinori Ohsumi (2016). The message goes on to make the following claims –

1. Cancer cells cannot survive in Oxygen environment (Dr.Otto) – So insert more oxygen in the body by exercise.
2. Blockages in the arteries can be removed with Nitric Oxide by eating raw vegetables and fruits (Dr.Murad) – So eat plenty of fruits and raw vegetables to widen and remove the blockages from arteries for proper blood supply to healthy cells.
3. Dr.Yoshimori Ohsumi discovered **autophagy** (hungry body eats the damaged and cancer cells) – So fasting increases immunity and kills cancerous cells. Be fast at least once in a week to increase immunity.

Dr. Yoshinori Ohsumi

Dr. Ferid Murad

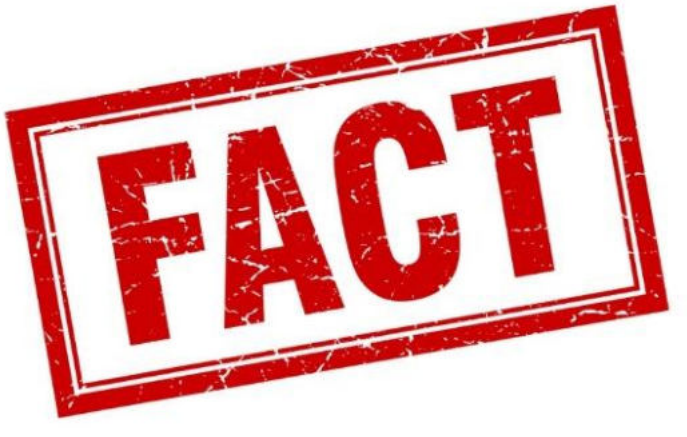
Dr. Otto Warburg

Cancer cannot be cured without a proper evidence based intervention!!

FACTS – The above message represents a distortion of the facts. Overall, exercise, healthy diet and controlled fasting are measures that can best be called preventive measures, and these are easily achievable preventive measures. But once cancer involving any organ system sets in, specific evidence based curative measures need to be taken.

Dr. Warburg's theory proposed that normal cells turn into cancer cells due to mitochondrial dysfunction, resulting in a switch to anaerobic (oxygen deficient) metabolism. His theory proposed a possible fundamental cause for cancer at a micro-level. The implication is that once cells turn cancerous, they cannot use oxygen in the first place. However, this does not mean that 'increasing oxygen' in the body will be able to cure cancer. In similar terms, Dr.Ohsumi's theory explains a ***cancer causing mechanism at a micro level***, which is not the same as fasting can cure cancer. On the contrary, it may worsen malnutrition and 'cachexia' in the patient. Eating fruits and vegetables will not remove blockages, once they are formed within the arteries.

Bottomline – Once a cancer is diagnosed, evidence-based treatment from a qualified cancer physician must be sought. Exercise and healthy diets are simple, evidence based preventive measures.



LAUGHTER IS THE BEST MEDICINE...

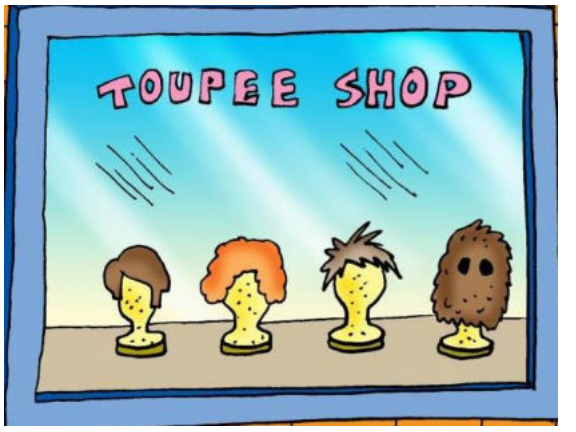
Q: What is the difference between capitalism and socialism?
A: In a capitalist society, man exploits man, and in a socialist one, it's the other way around. interrupt her."

123rf.com

Shutterstock.com

Living in rural Minnesota, I find driving through crowded Minneapolis difficult. "I have trouble figuring out when to turn and what lane to be in," I complained to my grandson. His wife could commiserate. "I know what you mean," she said. "I never know at which cornfield to turn when we come to visit you."

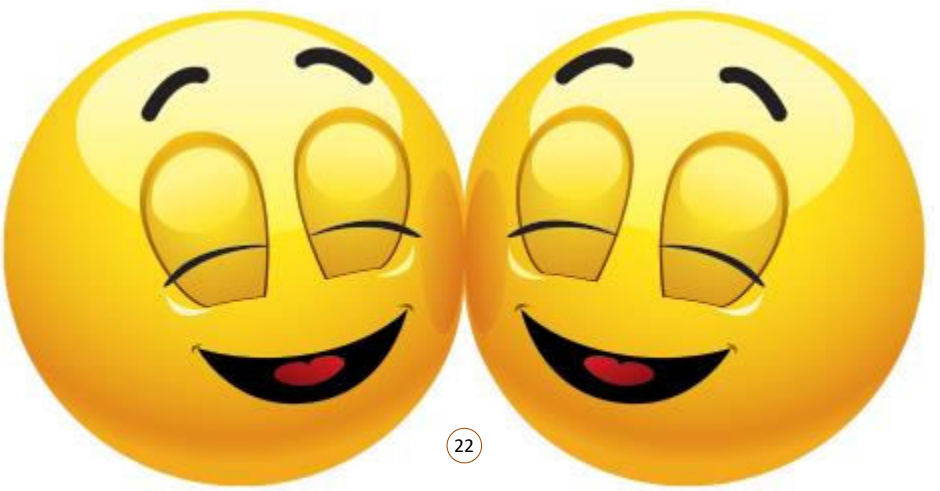
Q: Why shouldn't you visit an expensive wig shop?
A: It's too high a price 'toupee.'



cartoonstock.com

zazzle.com

My neighbour texted me, "I just made synonym buns!"
I texted back, "You mean like grammar use to make?"
I haven't heard from her since.



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New Section!!

"ST. JOHN'S FOUNTAINHEAD"

We will publish Abstracts of your published research……

Based on criteria laid down by the Editorial Board……

Email your Full Articles at the earliest to Dr. Santu Ghosh

santu.g@stjohns.in

Efficacy of modified Tochen's formula for optimum endotracheal tube placement in low birth weight neonates: an RCT.

Tatwavedi D, Nesargi SV, Shankar N, Mathias P, Rao Pn S.

Department of Neonatology, Department of Anatomy, Department of Neonatology, St. Johns Medical College Hospital, Bangalore, 560034, India.

Abstract

OBJECTIVE:

To assess the efficacy of modified Tochen's formula (birth weight + 5 cm) when compared to Tochen's formula for optimum placement of endotracheal tubes (ET) in low birth weight (LBW) neonates.

STUDY DESIGN:

In the NICU of a tertiary care hospital, LBW babies requiring intubation were randomized to Tochen's formula or modified Tochen's formula. The incidence of inadequate placement and optimum length of ET insertion were estimated. Analysis was done by the Chi square and 't'-tests.

RESULTS:

Sixty-seven babies were included: 34 in Tochen's group and 33 in modified Tochen's group. Baseline characteristics were similar. Modified Tochen's formula was significantly ($p = 0.006$) closer to the optimum position when compared to Tochen's formula. The percentages of optimum and adequate placements of the ET tube was higher in the modified Tochen's group, though not statistically significant.

CONCLUSION:

Modified Tochen's formula in LBW babies may enable more optimum placement of ETs.

J Perinatol. 2018 May;38(5):512-516. doi: 10.1038/s41372-018-0044-8

The primary surgical treatment of inguinal hernia: a changing trend towards laparoscopic hernioplasty

Sridar Govindaraj, A. P. Roshini , Clement Prakash , Pavithra B.

Department of General Surgery, St. John's Medical College and Hospital, Bangalore, Karnataka, India

Abstract

Background:

Inguinal hernias are the most common conditions presenting to the surgical department, which is repaired either with open technique or laparoscopically, Total Extra Peritoneal (TEP) or Trans-Abdominal PrePeritoneal (TAPP). Each procedure has its own advantages and drawbacks, none of them have been declared as the gold standard.

Methods:

Author did a prospective cohort study in a tertiary care hospital to assess the predictors and compare the outcomes for Open and Laparoscopic (TEP/TAPP) Inguinal hernia repair. A total of 180 patients were recruited into the study and followed up for a period of 1 year. Descriptive and inferential statistics was used to analyze the data.

Results:

131 (72.8%) underwent open hernioplasty and 49 (27.2%) underwent laparoscopic hernioplasty. There was a significant difference between the time taken to complete an open and laparoscopic inguinal hernia repair (p=0.004), with laparoscopic repair taking lesser operating time. Laparoscopy was converted to open repair in 3 (6.1%) patients. Mean pain scores at 6-hours post-operative was 5.28±1.355 with no difference in the pain among patients who underwent open and laparoscopic repair. Seroma or hematoma are known complications, which was seen more in the open technique. The reason for choosing open surgery was secondary to the higher cost of laparoscopic repair (Adjusted Odds Ratio=0.168, p=0.004).

Conclusions:

The outcomes of laparoscopic inguinal hernia repair are comparable to that with the open repair.

Int Surg J. 2019 Mar;6(3):764-768. DOI: http://dx.doi.org/10.18203/2349-2902.isj20190466

THE QUOTABLE OSLER

Life is a habit.

A few years ago a Xmas card went the rounds, with the legend 'Life is just one "defined" thing after another,' which, in more refined language, is the same saying "Life is a habit," a succession of actions that become more or less automatic.

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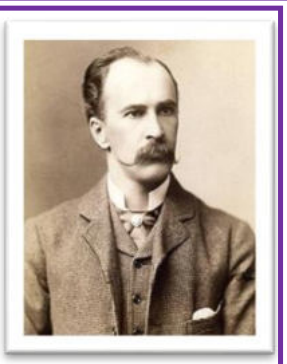

SIR WILLIAM OSLER

© Leader Snips, The Blog

Plan Ahead.

When schemes are laid in advance, it is surprising how often the circumstances fit in with them.

REF: The Quotable OSLER: Edited by Mark E Silverman, T. Jock Murray, Charles. S Bryan

MEDICINE DIS WEEK

A Bird's Eye View…..

Reusing Aspirin in Aspirin Sensitive individuals with Acute Coronary Syndrome.

Acetylsalicylic acid (ASA) hypersensitivity represents a clinical challenge in acute coronary syndrome (ACS) patients urgently requiring ASA for antiplatelet therapy. ASA desensitization has been reported with successful outcomes in cardiac patients. In a metanalysis of fifteen reports consisting of 480 ACS patients with previous hypersensitivity to ASA, it was observed that the pooled desensitization success rate was 98.3%. Several protocols were compared, it was concluded that ASA desensitization therapy is safe and effective in patients with ACS. Protocols with>6 dose escalations may be optimal for ASA desensitization in ACS patients.

- Chopra AM et al. Am J Cardiol. 2019;124(1):14. Epub 2019 Apr 10.

Can general anesthesia cause increased recurrence of breast cancer?

Three perioperative factors impair host defence against recurrence during cancer surgery: the surgical stress response, use of volatile anaesthetic, and opioids for analgesia. It was hence hypothesised that regional anesthesia ameliorates these effects and reduces the recurrence rates. In a large randomised control study of 2132 patients, the breast cancer recurrence rate was 10% on either arms of regional and general anesthesia. Hence the hypothesis was dismissed. .

-Sessler DI et al., Lancet. 2019;394(10211):1807. Epub 2019 Oct 20.

Meta-Analysis of Acetylsalicylic Acid Desensitization in Patients With Acute Coronary Syndrome

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Acetylsalicylic acid (ASA) hypersensitivity represents a clinical challenge in acute coronary syndrome (ACS) patients urgently requiring ASA for antiplatelet therapy. ASA desensitization has been reported with successful outcomes in cardiac patients. The aim of this review is to determine the safety and efficacy of ASA desensitization therapy in ACS patients. A PubMed database search was conducted for articles containing combinations of keywords, "aspirin desensitization" or "aspirin hypersensitivity" and "acute coronary syndrome" between January 1, 1990 and August 1, 2018. The primary end point was desensitization protocol success. Secondary end points included hypersensitivity adverse events and ASA discontinuation due to hypersensitivity adverse events at follow-up. Fifteen reports consisting of 480 ACS patients with previous hypersensitivity to ASA were included. The pooled desensitization success rate was 98.3% (95% confidence interval: 97.2% to 99.5%). There was no statistical difference in outcomes between protocols ≤ 2 hours and > 2 hours in duration (96.3[92.3 to 100.3]% vs 97.2[94.6 to 99.8]%; p = 0.71). Protocols with > 6 dose escalations were associated with higher success rates compared to those with ≤ 6 doses (99.2[97.9 to 100.4]% vs 95.4[93 to 97.8]%; p = 0.007). At follow-up between 1 and 46 months (mode 12 months), zero hypersensitivity adverse events were reported. Consequently, no ASA discontinuations were related to hypersensitivity adverse events. In conclusion, ASA desensitization therapy is safe and effective in patients with ACS. Protocols with > 6 dose escalations may be optimal for ASA desensitization in ACS patients. **(Am J Cardiol 2019;124:14–19)**

Acetylsalicylic acid (ASA; aspirin) is avidly used as antiplatelet therapy for the secondary prevention of coronary artery disease (CAD).[1] However, approximately 1.5% of cardiac patients have hypersensitivity reactions to ASA.[2] In CAD patients with hypersensitivity to ASA, American College of Cardiology and American Heart Association (ACC/AHA) guidelines indicate the use of clopidogrel.[3] However, in higher-risk patients with acute coronary syndrome (ACS) requiring ASA, hypersensitivity may alter the choice of stents (bare metal vs drug-eluting stent) or at times prevent the patient from receiving the benefits of percutaneous coronary intervention (PCI) therapy altogether.[3] In such urgent settings, ASA desensitization therapy—successively increasing exposure to ASA at set intervals to eliminate hypersensitivity reactions—has been reported with successful outcomes.[4,5] The aim of this review is to determine the safety and efficacy of ASA desensitization therapy in ACS patients.

Methods

Data for this review were attained through a PubMed database search (National Center for Biotechnology Information, US National Library of Medicine, Bethesda, Maryland) for articles containing combinations of keywords, "aspirin desensitization" or "aspirin hypersensitivity" and "acute coronary syndrome" between January 1, 1990 and August 1, 2018.[6]

Inclusion criteria included: (1) patients with ACS and a known or suspect history of hypersensitivity to ASA; (2) availability of desensitization protocol details with outcomes. Exclusion criteria included: (1) case series with less than 3 patients. No language restrictions were applied. Hypersensitivity reactions were defined as cutaneous (urticaria, angioedema), respiratory (asthma, rhinitis), or systemic (anaphylaxis).[7]

Primary end point: desensitization protocol success defined as the ability to complete the desensitization protocol and sustain aspirin therapy till discharge without any hypersensitivity reactions. Secondary end points: (1) hypersensitivity adverse events at follow-up, and (2) discontinuation of ASA due to hypersensitivity adverse events at fo

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See page 17 for disclosure information.

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CONTENTS

Recurrence of breast cancer after regional or general anaesthesia: a randomised controlled trial

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Summary

Background Three perioperative factors impair host defence against recurrence during cancer surgery: the surgical stress response, use of volatile anaesthetic, and opioids for analgesia. All factors are ameliorated by regional anaesthesia-analgesia. We tested the primary hypothesis that breast cancer recurrence after potentially curative surgery is lower with regional anaesthesia-analgesia using paravertebral blocks and the anaesthetic propofol than with general anaesthesia with the volatile anaesthetic sevoflurane and opioid analgesia. A second hypothesis was that regional anaesthesia-analgesia reduces persistent incisional pain.

Methods We did a randomised controlled trial at 13 hospitals in Argentina, Austria, China, Germany, Ireland, New Zealand, Singapore, and the USA. Women (age <85 years) having potentially curative primary breast cancer resections were randomised by computer to either regional anaesthesia-analgesia (paravertebral blocks and propofol) or general anaesthesia (sevoflurane) and opioid analgesia. The primary outcome was local or metastatic breast cancer recurrence. The secondary outcome was incisional pain at 6 months and 12 months. Primary analyses were done under intention-to-treat principles. This trial is registered with ClinicalTrials.gov, NCT00418457. The study was stopped after a preplanned futility boundary was crossed.

Findings Between Jan 30, 2007, and Jan 18, 2018, 2132 women were enrolled to the study, of whom 24 were excluded before surgery. 1043 were assigned to regional anaesthesia-analgesia and 1065 were allocated to general anaesthesia. Baseline characteristics were well balanced between study groups. Median follow-up was 36 (IQR 24–49) months. Among women assigned regional anaesthesia-analgesia, 102 (10%) recurrences were reported, compared with 111 (10%) recurrences among those allocated general anaesthesia (hazard ratio 0·97, 95% CI 0·74–1·28; p=0·84). Incisional pain was reported by 442 (52%) of 856 patients assigned to regional anaesthesia-analgesia and 456 (52%) of 872 patients allocated to general anaesthesia at 6 months, and by 239 (28%) of 854 patients and 232 (27%) of 852 patients, respectively, at 12 months (overall interim-adjusted odds ratio 1·00, 95% CI 0·85–1·17; p=0·99). Neuropathic breast pain did not differ by anaesthetic technique and was reported by 87 (10%) of 859 patients assigned to regional anaesthesia-analgesia and 89 (10%) of 870 patients allocated to general anaesthesia at 6 months, and by 57 (7%) of 857 patients and 57 (7%) of 854 patients, respectively, at 12 months.

Interpretation In our study population, regional anaesthesia-analgesia (paravertebral block and propofol) did not reduce breast cancer recurrence after potentially curative surgery compared with volatile anaesthesia (sevoflurane) and opioids. The frequency and severity of persistent incisional breast pain was unaffected by anaesthetic technique. Clinicians can use regional or general anaesthesia with respect to breast cancer recurrence and persistent incisional pain.

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*Listed in appendix

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Introduction

Breast cancer is the most common cancer in women and the second leading cause of cancer death.[1] Mortality from breast cancer is usually attributable to distant organ metastasis despite surgical resection with curative intent. Surgery is the primary and most effective treatment for breast cancer, but residual disease in the form of scattered micrometastases and tumour cells is usually unavoidable.[2] Whether minimal residual disease results in clinical metastases is a function of host defence and tumour survival and growth.

At least three perioperative factors shift the balance towards progression of minimal residual disease. First, surgery depresses cell-mediated immunity, reduces concentrations of tumour-related antiangiogenic factors (eg, angiostatin and endostatin), increases concentrations of proangiogenic factors such as vascular endothelial growth factor, and releases growth factors that promote local and distant growth of malignant tissue.[3] Second, volatile anaesthetics such as sevoflurane impair many [illegible] immune functions (eg, natural killer cells) and [illegible] facilitate cancer cell growth.[4] Third, opioid analgesics

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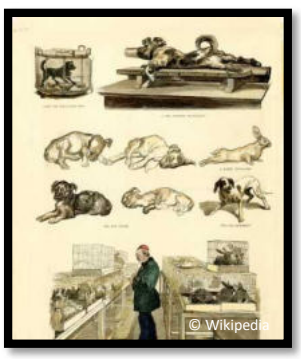
THE STORY OF MEDICINE

RABIES VACCINE

LOUIS PASTEUR



EXPERIMENT WIH DOGS

Louis Pasteur began his research on rabies in 1880, first looking for the organism responsible. Despite ascertaining that the disease affected the central nervous system, and theorizing that whatever caused, it should be found there as well as in the saliva, he failed completely to identify the correct microbe.

He began by injecting rabies-riddled material (usually nerve tissue) into rabbits' brains. When rabbit after rabbit had been injected with the same virus, a consistent incubation period of about six days was produced, much shorter than would happen normally. The virus that acted in this way was called 'fixed virus', and it seemed to have been weakened: dogs inoculated with it sometimes did not produce rabies.

He would then suspend the spinal cords of dead rabbits over a vapour of potassium hydroxide to dry them out.

He then set up an experiment with 42 dogs: 23 dogs received 14 injections, the remaining 19 were in control group. At the end of the two weeks, all the dogs were exposed to the rabies virus, either by having it injected in their brain or blood stream, or by being bitten by a rabid animal. None of the 23 immunized dogs got rabies; 13 of the control group did.

Louis Pateur with rabbits

Rabies Virus

PEARLS OF WISDOM

Cherish that which is within you.

- Chuang Tzu

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It's not the load that breaks you down. It's the way you carry it.

- C.S. Lewis

You were born an original, don't become a copy.

- Dustin

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REF: 365 Days of Wonder: R.J.Palacio.

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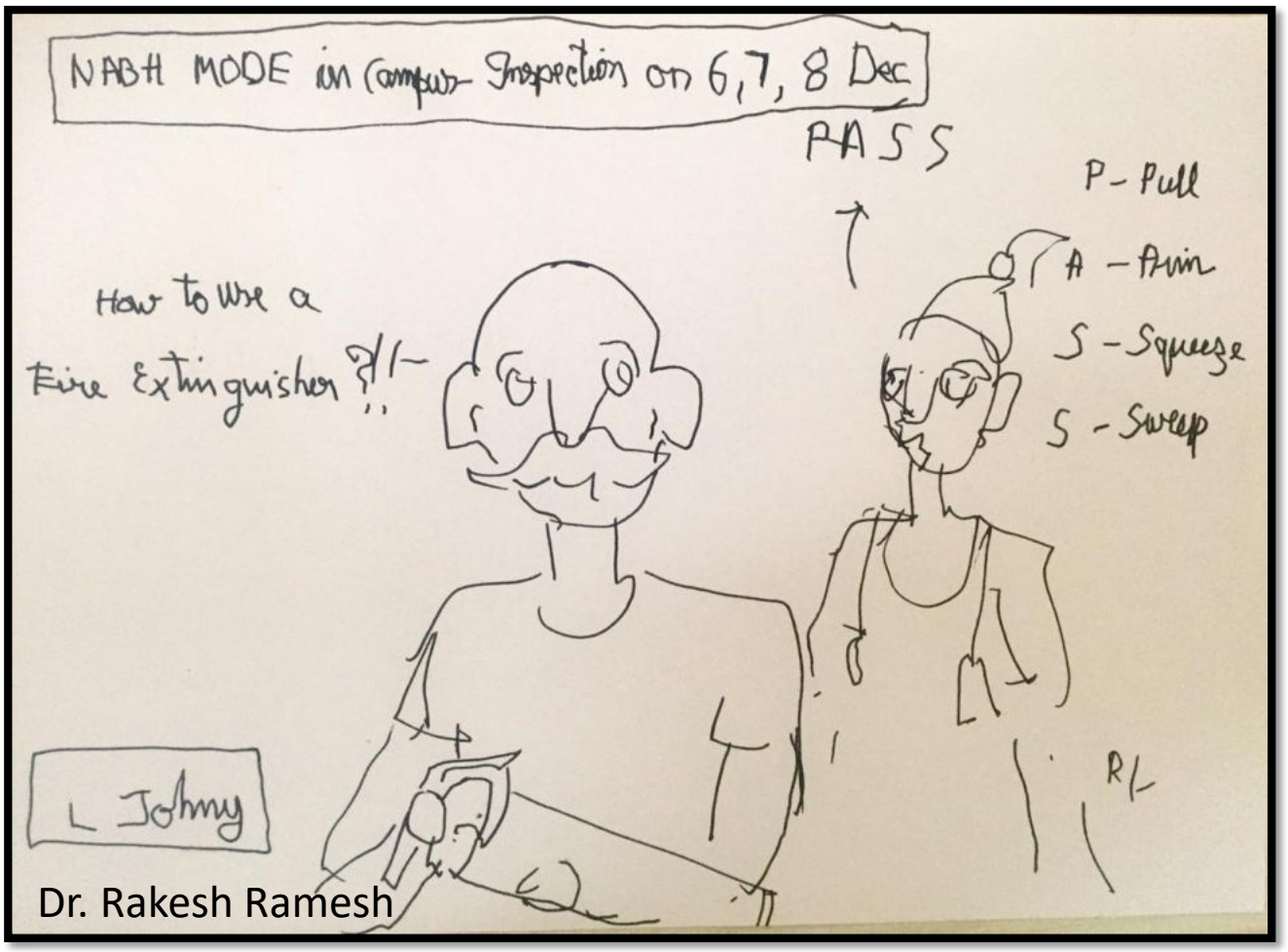
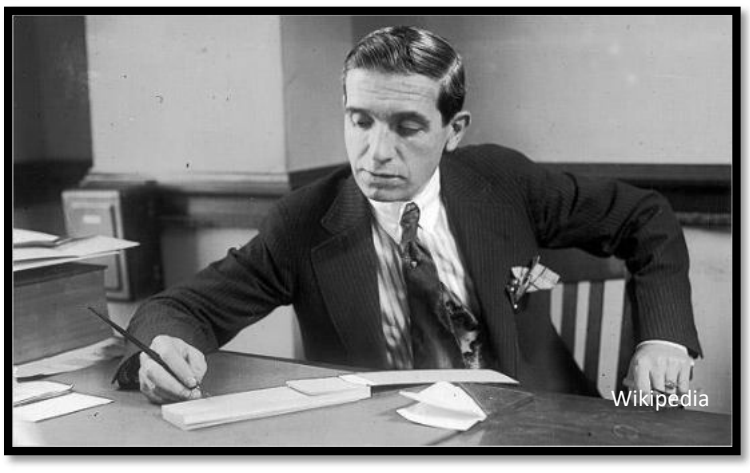


Did You Know?

A ***Ponzi Scheme*** is a form of fraud that lures investors and pays profits to earlier investors with funds from more recent investors. The scheme is named after Charles Ponzi, who became notorious for using the technique in the 1920s.



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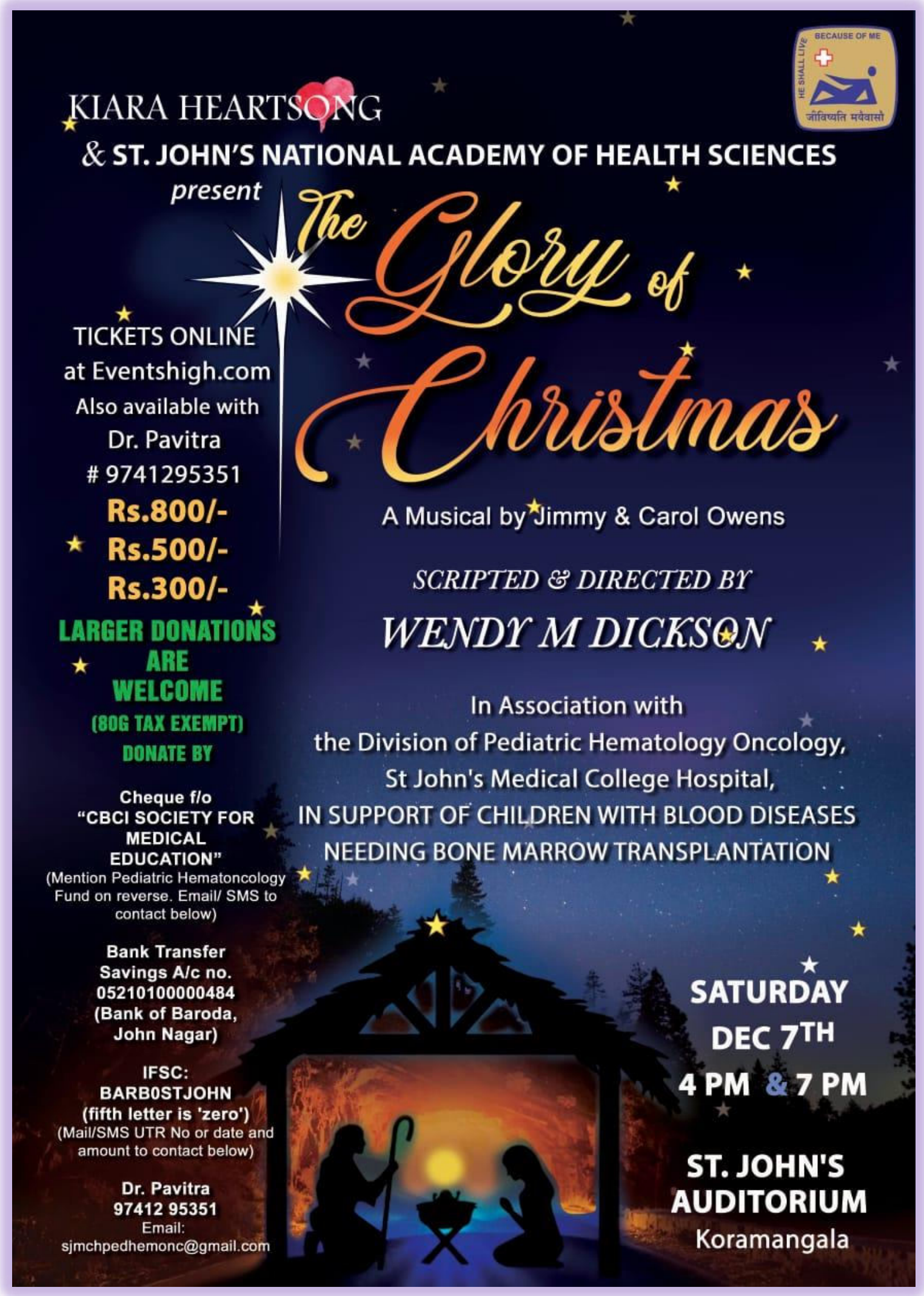

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