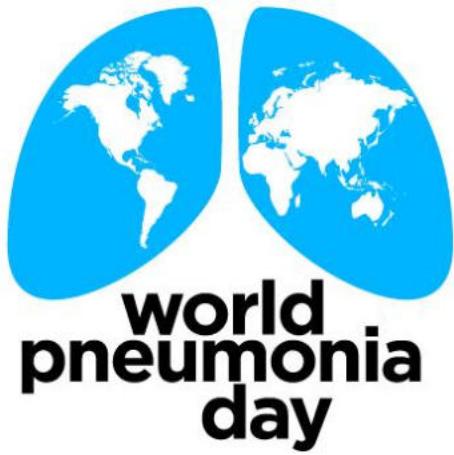


What's Up? @St John's Hospital

Issue 11, November 12th 2018



Garden in front of main entrance of the Hospital.

PC: Dr. Deepak Kamath.

EDITORIAL TEAM:

Archana S, Avinash. H. U, Bhavyank Contractor,
Deepak Kamath, Manu. M. K. Varma, Nivedita
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Kanhere, Saudamini Nesargi, Sanjiv Lewin,
Sanjukta Rao.

*Names are in Alphabetical Order

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



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[What's Up? @ St.John's Hospital](#)

Issue 11, November 12th, 2018

[Go to this Sway](#)



MESSAGE FROM THE EDITORIAL TEAM

Yellarigu Namaskara!!!

“What’s Up? @ St John’s Hospital” magazine’s eleventh issue is out today. We thank you all for the overwhelming response.

In this issue, we present to you, a thrilling story of an one year old boy ‘D’ who fought and won with death, in the Survivor’s Corner .

Today we mark World Pneumonia Day, we thank Dr. Uma Maheswari K (Professor, Department of Pulmonary Medicine) for giving us a wonderful write up on Pneumonia.

Feel free to communicate with us for publishing your contents, achievements and events.

Regards

Editorial Team

UPDATES THIS WEEK

WORLD PNEUMONIA DAY

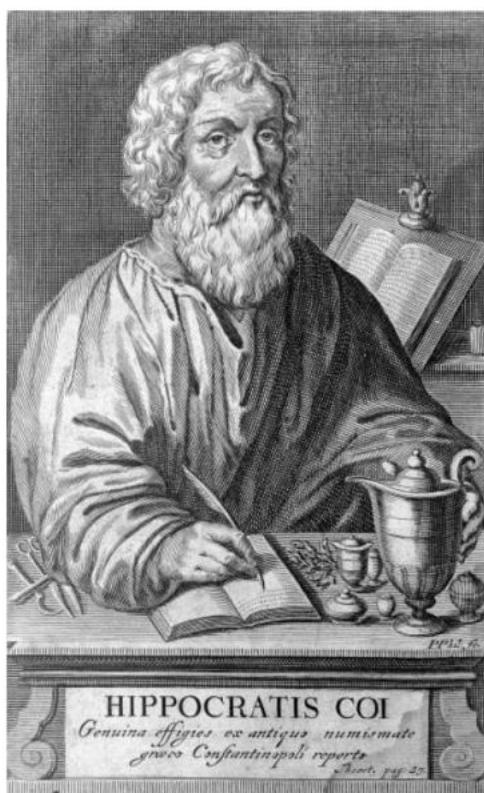
12TH NOVEMBER 2018

- *Dr. Uma Maheswari K, Professor,
Department of Pulmonary Medicine*

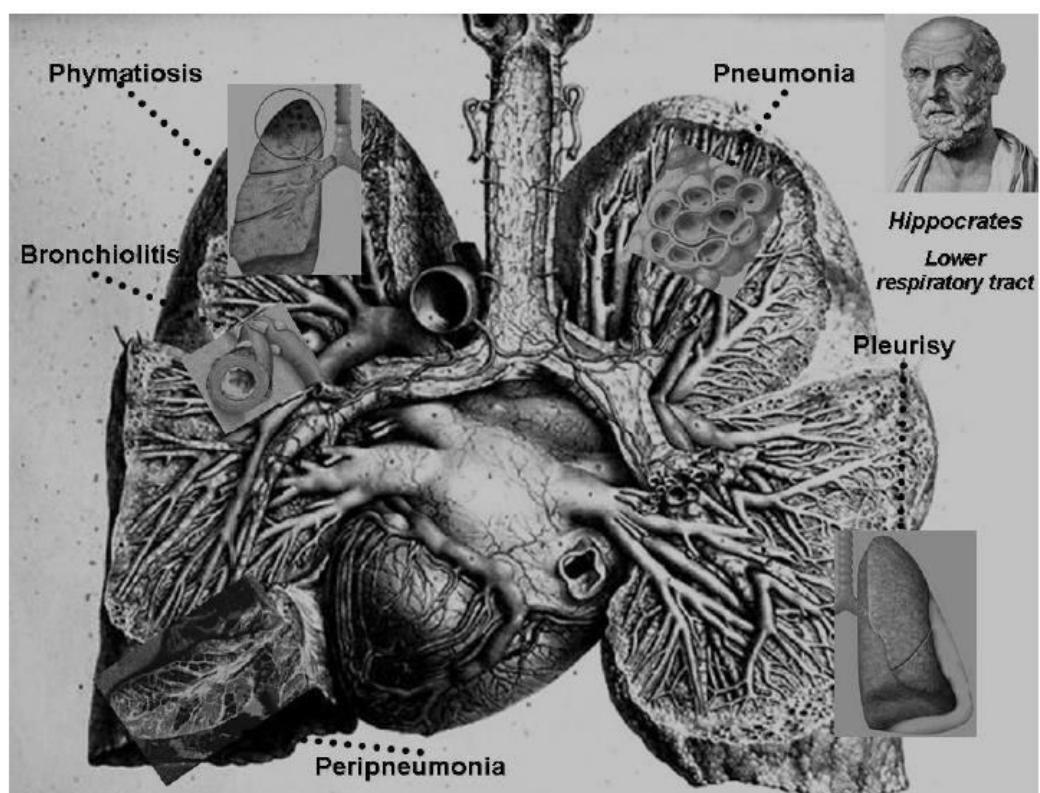
HISTORY:

Hippocrates named the most serious infection of the lungs pneumonia (Greek: πνευμονία), a condition caused when the lung draws to its side, blood, or salted mucus, without egesting them. Consequently these liquids could have been condensed and coagulated, able to create edemas and empyemas. The nosological entity's seriousness was described, "when pneumonia is at its height, the case is beyond remedy if he is not purged, and it is bad if he has dyspnoea, and urine that is thin and acrid, and if sweats come out about the neck and head, for such sweats are bad, as proceeding from the suffocation with rales, and the violence of the disease is obtaining the upper hand". Its clinical manifestation was presented with intense and dry cough, shaking chills and high fever, chest and back pain, dyspnoea, and orthopnoea. The patient could remain in the same condition for approximately two weeks, and then the pus could be spitted out and the expectoration of the humours could appear. As far as the treatment was concerned, initially bathing with hot water was strongly indicated, combined with the drinking of hot herbal preparations, mainly cereals. In some cases, when the patient was too weak to eat, Hippocrates had used medicines, such as a blend of honey, milk and vinegar through an oral gastric tube.

Tsoucalas G, Sgantzos M (2016) Gen Med (Los Angeles) 4:272.



Portrait of Greek physician Hippocrates from an 18th century edition of Hippocratic aphorisms: Hippocratis Aphorismi, König, Strasbourg, 1756.



Pathology of the lower respiratory tract inside Corpus Hippocraticum. Lung anatomy, Anatomie de l'homme, Bourguery and Jacob, Guérin Editions, Paris 1862.

UPDATES THIS WEEK

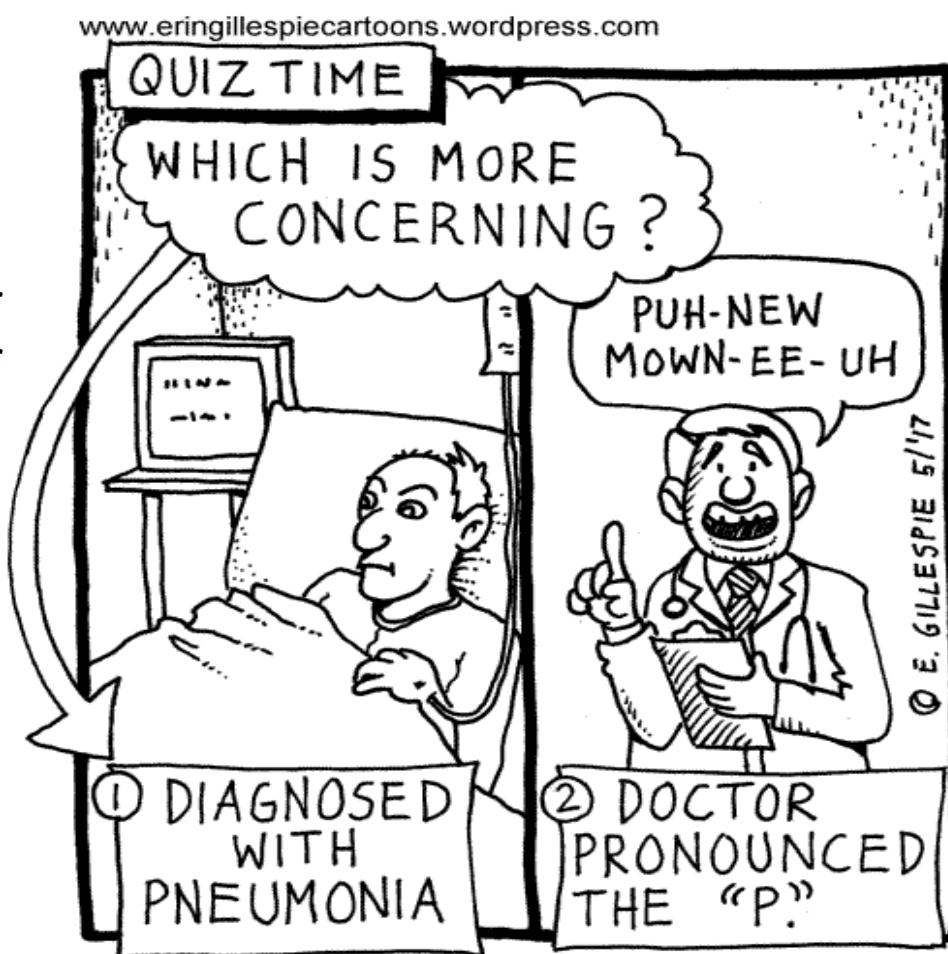
WORLD PNEUMONIA DAY

12TH NOVEMBER 2018

In the Mortality Bills, pneumonia is an easy second, to tuberculosis; indeed in many cities the death-rate is now higher and it has become, to use the phrase of Bunyan 'the captain of the men of death.'

— Sir William Osler (1904)

This statement by the eminent physician, Willian Osler rings true even a century later. Pneumonia continues to be an important cause of mortality and morbidity worldwide in children and adults alike. With improved diagnostics and the advent of antibiotics, mortality has declined.



The bigger challenge in recent times is the changing landscape of pneumonia etiology with emergence of healthcare associated drug resistant bugs and fungi (thanks to indiscriminate use of antibiotics) and resurgence of unusual organisms due to medically induced immune suppression and HIV-AIDS.

PNEUMONIA IN ADULTS

Diagnostic and treatment guidelines for community acquired as well as healthcare associated pneumonia in adults have been published by various national societies from time to time; yet this disease is often managed inappropriately. Although pneumonia in adults is promptly diagnosed with clinical and radiological methods, lack of risk stratification and over prescribing/ premature escalation of antibiotics continue to be pain points.

The cornerstones in adult pneumonia management, be it community or hospital acquired are: appropriate risk stratification of the patient, prompt institution of antibiotics according to the risk group assigned, recognition and management of complications, awareness of causes of non-resolution and vaccination of at risk groups to prevent pneumococcal pneumonia and influenza.

UPDATES THIS WEEK

WORLD PNEUMONIA DAY

12TH NOVEMBER 2018

PNEUMONIA IN CHILDREN

Key facts (Courtesy: National health portal of India)

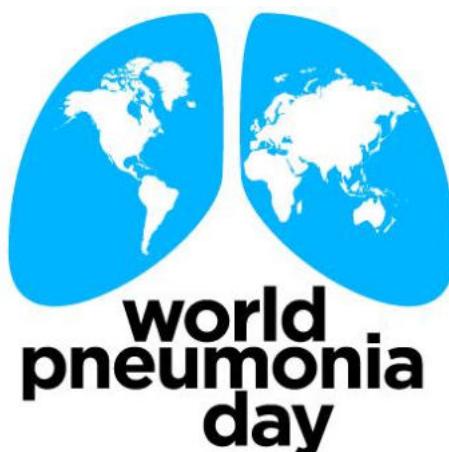
1. Pneumonia is the leading infectious killer of children under five years of age worldwide.
2. Pneumonia killed nearly 9 lakh children under the age of 5 in 2015, accounting for 16% of all deaths of children under five years old.
3. Pneumonia is easily preventable and treatable cause of deaths in children and yet a child dies from pneumonia every 20 seconds.
4. Children can be protected from pneumonia with simple interventions, and treated with low-cost, low-tech medication and care.

The issues around pneumonia management are different in children where timely identification of acute respiratory infections continue to be an important challenge, especially in primary healthcare settings. The **World Pneumonia Day**, which was first hosted on 12th November 2009 by the Global Coalition against Child Pneumonia (GCCP) is celebrated to highlight the seriousness of pneumonia as a public health problem and to encourage more organizations and nations to look at ways of combating the disease.

The main objectives of the world pneumonia day are:

1. To raise awareness about pneumonia, which is the world's leading killer of children under the age of five.
2. To promote interventions to protect against, prevent and treat pneumonia
3. Generate an action plan to combat pneumonia.

So, let's join hands to prevent, identify and combat this potentially serious disease.



UPDATES THIS WEEK

Kannada Rajyotsava Celebration

3rd November 2018



Kannada Rajyotsava was celebrated in front of the Main Entrance of the Hospital on 3rd November 2018. The Function was presided by Rev. Fr. Christopher, OFM, St. Anthony's Friary Church, Bangalore. Smt. Gangambike Mallikarjun, BBMP Mayor was the chief guest for the evening public function at the OPD entrance. Rev. Fr. Paul Parathazham (Director), Rev. Fr. Jesudoss Rajamanickam (Associate Director – Finance), Rev. Fr. Duming Dias (Associate Director – College), Rev. Fr. Pradeep Kumar Samad (Associate Director – Hospital) and Dr. Sanjiv Lewin (CMS) graced the occasion.



UPDATES THIS WEEK

FRIDAY CLINICAL MEETING 2ND Nov 2018

DIVISION OF PULMONARY MEDICINE

MORTALITY AUDIT

20 year old female was admitted on 23/8/18 with one and half month history of fever, dry cough and gradually progressive dyspnea. She had been diagnosed with pulmonary tuberculosis in November 2017 and had stopped treatment after 5 months. On examination she was hemodynamically stable and had bronchial breath sounds in the left supra and interscapular regions. Chest X ray showed left upper lobe cavity and volume loss of the left lung. Relevant Lab reports showed anaemia (hemoglobin-8gm%) and hypoalbuminemia (1.2g/dl). A clinical diagnosis of Reactivation or Drug resistant pulmonary Tuberculosis with superadded bacterial infection was made. After a failed sputum induction, bronchoscopy was done on 27/8/18 which showed features of endobronchial tuberculosis. The BAL(Bronchoalveolar lavage) fluid was positive for AFB (Acid fast bacillus) and CBNAAT(Cartridge Based Nucleic Acid Amplification Test) showed rifampicin sensitive mycobacterium tuberculosis. She was started category 2 ATT (Anti tubercular therapy) on 29/8/18.

On the 6th day of admission she started complaining acute onset of left sided chest pain with increased breathlessness. On assessment she was hypoxic but maintaining her blood pressure and was communicating well with the doctors. She was started on 6 litres of oxygen after which her saturation increased to 92%. Urgent bedside ultrasound was done to rule out pneumothorax or Deep Vein Thrombosis with pulmonary embolism but no conclusive finding was obtained. Chest X ray showed left sided pneumothorax thus an Intercostal drain (ICD) insertion was planned in view of the pneumothorax and desaturation. After taking an informed consent from the next of kin ICD insertion was done at the bedside, and throughout the procedure, the patient remained conscious and was communicative.

After ICD insertion, around 400 ml pus and air were drained and column was moving well thus confirming its correct placement. There was no blood in the ICD. Before the ICD site could be sutured, the patient suddenly became unresponsive and had a feeble pulse, which progressed to pulselessness within seconds. CODE BLUE was activated and CPR (Cardio-Pulmonary Resuscitation) was started immediately with bag and mask ventilation. She was intubated and the CPR was continued as per the ACLS guidelines for nearly an hour and she was declared dead at 5.55pm.



UPDATES THIS WEEK

MORTALITY AUDIT

Immediate cause of death was thought to be re-expansion pulmonary edema or vagal shock or fatal arrhythmia due to massive pyopneumothorax which was secondary to extensive endobronchial and parenchymal tuberculosis.

Learning points:

ICD insertion being an emergency procedure can be performed at bed side, but we should ideally plan it to be in a spacious area with cardiac monitor and central oxygen supply where a crash cart trolley can be accommodated easily.

The possible complications of tube thoracostomy are:

Minor:

1. Pain at the insertion site while performing the procedure
2. Pain (dull aching type) with lung expansion (re-expansion edema)
3. Cough (due to re-expansion of the lung)
4. Transient bradycardia (vaso-vagal reflex mediated)
5. Transient arrhythmias

Major:

1. Infection, involving the pleura, lung and the soft tissue
2. Haemothorax (Inter costal artery laceration)
3. Splenic and hepatic laceration
4. Severe vaso-vagal syncope
5. Fatal arrhythmias
6. Re-expansion pulmonary edema

Re-expansion pulmonary edema:

It is the development of unilateral pulmonary edema in a lung that has been rapidly re-inflated following a variable period of collapse secondary to pleural effusion or pneumothorax. It is associated with variable degree of hypoxia and hypotension occasionally requiring intubation.

The causes are increased permeability of the pulmonary vasculature, increased mechanical stress on the vessels due to re-expansion leading to vascular injury, re-perfusion injury

The incidence of it following pneumothorax is variable between 1-2%.

UPDATES THIS WEEK

MORTALITY AUDIT

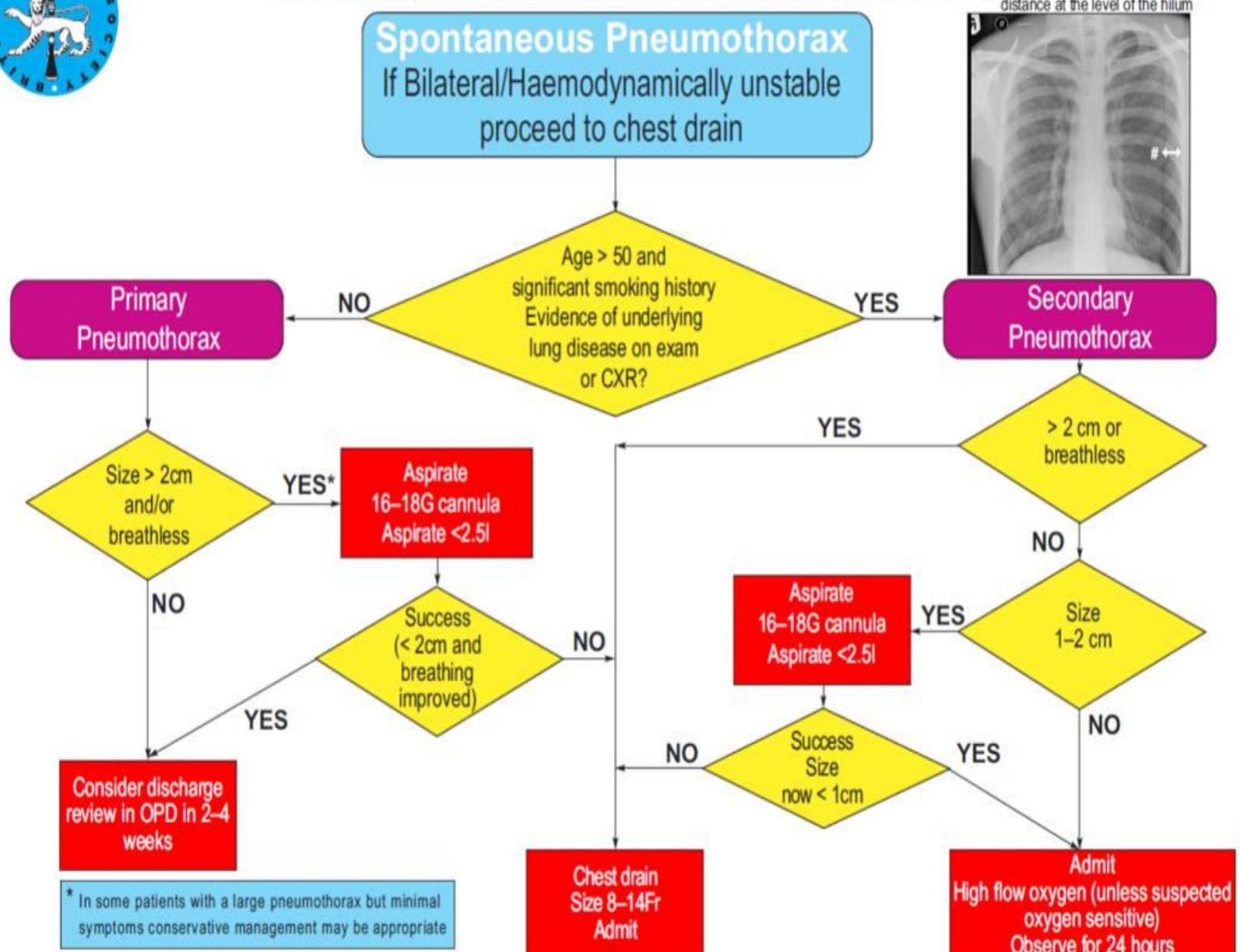
Vasovagal syncope:

Characterized by bradycardia, a decreased stroke volume resulting in fall in cardiac output and blood pressure. It can be secondary to the procedure or by various noxious, emotional and physical stimuli such as apprehension, pain or sight of blood. It is generally transient but can be fatal in some case. The incidence is varying and reported to be $\leq 0.6\%$ in various studies.

The tube thoracostomy was carried out as per the BTS 2010 guideline the management of pneumothorax.



BTS Pleural Disease Guideline 2010 MANAGEMENT OF SPONTANEOUS PNEUMOTHORAX



UPDATES THIS WEEK

INAUGURATION of MINOR OT in GENERAL SURGERY OPD

20TH OCTOBER 2018

The minor OT was blessed and inaugurated on 20th October 2018.

Rev. Fr. Pradeep Kumar Samad (Associate Director Hospital), Rev. Fr. Duming Dias (Associate Director College), Rev. Fr. Jesudas (Associate Director Finance) and Dr. George D' Souza (Dean) dedicated the new Minor OT to Patient service.



PC: Dr. Subramanian, (Professor, Department of General Surgery)



IG NOBEL



1991 - CHEMISTRY

Jacques Benveniste

Jacques Benveniste, prolific proseletizer and dedicated correspondent of "Nature," for his persistent discovery that water, H₂O, is an intelligent liquid, and for demonstrating to his satisfaction that water is able to remember events long after all trace of those events has vanished

Benveniste was at the centre of a major international controversy in 1988, when he published a paper in the prestigious scientific journal Nature describing the action of very high dilutions of anti-IgE antibody on the degranulation of human basophils, findings which seemed to support the concept of homeopathy.



Jacques Benveniste (1935 – 2004)

816

SCIENTIFIC PAPER

NATURE VOL. 333 30 JUNE 1988

Human basophil degranulation triggered by very dilute antiserum against IgE

E. Davenas, F. Beauvais, J. Amara*, M. Oberbaum*, B. Robinzon†, A. Miadonna‡, A. Tedeschi‡, B. Pomeranz§, P. Fortner§, P. Belon, J. Sainte-Laudy, B. Poitevin & J. Benveniste||

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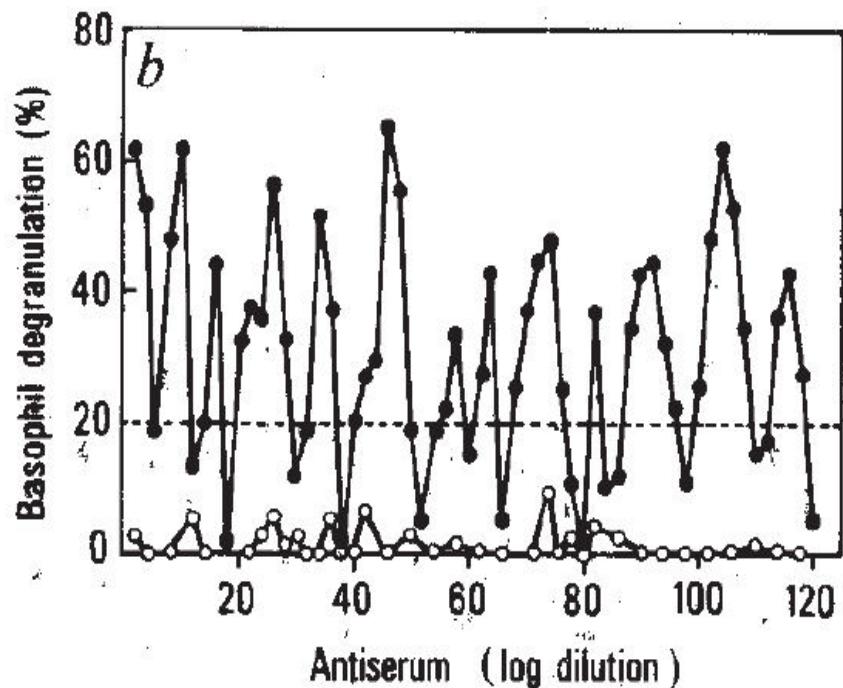
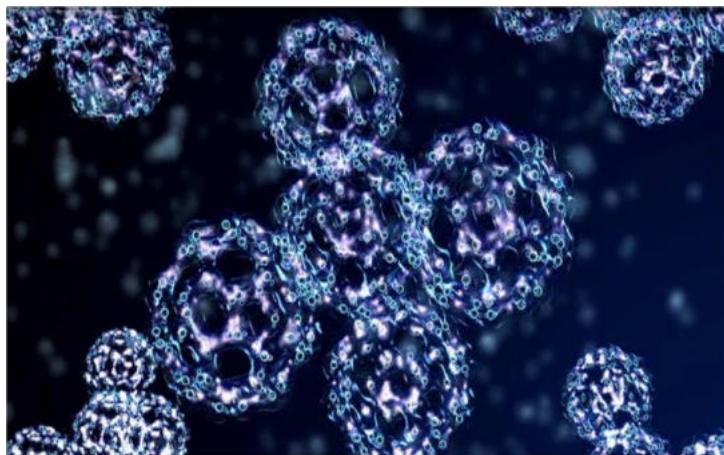
|| To whom correspondence should be addressed.

When human polymorphonuclear basophils, a type of white blood cell with antibodies of the immunoglobulin E (IgE) type on its surface, are exposed to anti-IgE antibodies, they release histamine from their intracellular granules and change their staining properties. The latter can be demonstrated at dilutions of anti-IgE that range from 1×10^7 to 1×10^{120} ; over that range, there are successive peaks of degranulation from 40 to 60% of the basophils, despite the calculated absence of any anti-IgE molecules at the highest dilutions. Since dilutions need to be accompanied by vigorous shaking for the effects to be observed, transmission of the biological information could be related to the molecular organization of water.

IG NOBEL



Biologists were puzzled by Benveniste's results, as only molecules of water, and no molecules of the original antibody, remained in these high dilutions. Benveniste concluded that the configuration of molecules in water was biologically active; a journalist coined the term water memory for this hypothesis. Much later, in the nineties, Benveniste also asserted that this "memory" could be digitized, transmitted, and reinserted into another sample of water, which would then contain the same active qualities as the first sample.



As a condition for publication, Nature asked for the results to be replicated by independent laboratories. The controversial paper published in Nature was eventually co-authored by four laboratories worldwide, in Canada, Italy, Israel, and France. After the article was published, a follow-up investigation was set up by a team including physicist and Nature editor John Maddox, illusionist and well-known skeptic James Randi, as well as fraud expert Walter Stewart who had recently raised suspicion of the work of Nobel Laureate David Baltimore. With the cooperation of Benveniste's own team, the group failed to replicate the original results, and subsequent investigations did not support Benveniste's findings either. Benveniste refused to retract his controversial article, and he explained (notably in letters to Nature) that the protocol used in these investigations was not identical to his own. However, his reputation was damaged, so he began to fund his research himself as his external sources of funding were withdrawn.



SURVIVOR's CORNER

Saving a child- A team effort!

D, a one year old boy presented to the emergency with severe pallor, congestive heart failure and shock. The child was resuscitated and was admitted to the pediatric intensive care unit requiring mechanical ventilation and inotropes. The pediatric hematology team helped in further evaluation and management. The child needed immediate blood transfusion, however it was a challenge as severe anemia arising from autoimmune hemolysis not only resulted in cardiac failure but had also caused oliguric acute kidney injury (AKI). The pediatric nephrology team performed acute peritoneal dialysis which facilitated the management of fluids, safe transfusion and acute kidney injury in this child. After several days of stay in the intensive care unit, multiple sessions of dialysis and blood transfusions, child gradually improved and shifted to the ward. Though he survived the acute life threatening event, AKI persisted, necessitating continuation of peritoneal dialysis for a total duration of 2 weeks. The dialysis was done in the ward with a soft peritoneal catheter placed by the pediatric surgery team.

Here, he received immunosuppressive therapy for autoimmune hemolytic anaemia of unclear etiology along with continuation of dialysis and supportive care by team of pediatric nephrology, hematology, pediatrics and pediatric surgery. He battled infections, received nutrition and rehabilitation and finally after more than 5 weeks in the hospital, this boy made a complete recovery with a stable haemoglobin level and near normal renal function.

On follow up, he was doing well and looking as cheerful and active as any other toddler!



LAUGHTER IS THE BEST MEDICINE...



William came home from the doctor looking very worried. "What is it?" asked his wife. "What's the problem?"

"Well, the doctor told me I have to take one of these pills every day for the rest of my life," explained William.

"So what?" his wife replied. "Lots of people have to do that."

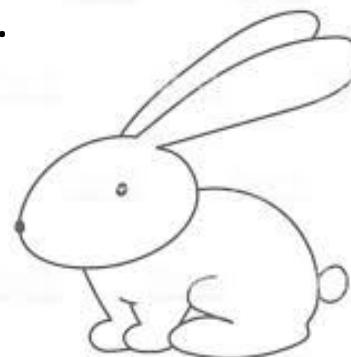
"I know. But he only gave me four pills."



A child was hospitalised after swallowing six plastic horses. Doctors describe his condition as stable.

Q: What do you call a parade of rabbits hopping backwards?

A: A receding Hare-line!

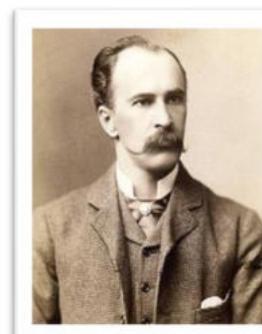


Q: What did the mummy ghost say to the noisy young ghost who kept interrupting?

A: "Spook when you're spoken to."



THE QUOTABLE OSLER



SIR WILLIAM OSLER

Physicians Should be wary of professional arrogance

Perhaps no sin so easily besets us as a sense of self-satisfied superiority to others. It cannot always be called pride, that master sin, but more often it is an attitude of mind which either leads to bigotry and prejudice or to such a vaunting conceit in the truth of one's own beliefs and positions, that there is no room for tolerance of ways and thoughts which are not as ours are



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



MEDICINE DIS WEEK

A Bird's Eye View.....

Pantoprazole in patients at risk of GI bleed in the ICU.

Prophylaxis for gastrointestinal stress ulceration is frequently given to patients in the ICU, but its risks and benefits are unclear. In a European, multicentre, parallel group, blinded RCT, 3298 ICU patients were randomly assigned to IV Pantoprazole 40mg (OD) versus placebo. There was no statistically significant difference in death at 90 days (primary outcome) and occurrence of clinically important event. However, in the pantoprazole group, 2.5% had clinically important GI bleed as compared to 4.2% in placebo group.

- Krag M et al., N Engl J Med. 2018 Oct 24.

Surgical Management of Gastro-Oesophageal Reflux Disease

Proton-pump inhibitors are the mainstay of treatment for GORD, but are associated with ongoing costs and side-effects. Antireflux surgery is cost effective and is preferred in many patients. A metaanalysis of 51 RCTs was conducted involving 5357 patients and 14 different treatments. Posterior fundoplication ranked best in terms of reflux symptoms, and caused less dysphagia than most other interventions including Nissen fundoplication. This was consistent across all time points and outcome measures.

-Amer MA et al., Br J Surg. 2018 Oct;105(11):1398-1407..

Pantoprazole in Patients at Risk for Gastrointestinal Bleeding in the ICU

M. Krag, S. Marker, A. Perner, J. Wetterslev, M.P. Wise, J.C. Schefold, F. Keus, A.B. Guttormsen, S. Bendel, M. Borthwick, T. Lange, B.S. Rasmussen, M. Siegemund, H. Bundgaard, T. Elkmann, J.V. Jensen, R.D. Nielsen, L. Liboriussen, M.H. Bestle, J.M. Elkjær, D.F. Palmqvist, M. Bäcklund, J.H. Laake, P.M. Bådstøløkken, J. Grönlund, O. Breum, A. Walli, R. Winding, S. Iversen, I.-L. Jarnvig, J.O. White, B. Brand, M.B. Madsen, L. Quist, K.J. Thornberg, A. Møller, J. Wiis, A. Granholm, C.T. Anthon, T.S. Meyhoff, P.B. Hjortrup, S.R. Aagaard, J.B. Andreasen, C.A. Sørensen, P. Haure, J. Hauge, A. Hollinger, J. Scheuzger, D. Tuchscherer, T. Vuilliomnet, J. Takala, S.M. Jakob, M.L. Vang, K.B. Pælestik, K.L.D. Andersen, I.C.C. van der Horst, W. Dieperink, J. Fjølner, C.K.W. Kjer, C. Sølling, C.G. Sølling, J. Karttunen, M.P.G. Morgan, B. Sjøbø, J. Engstrøm, B. Agerholm-Larsen, and M.H. Møller, for the SUP-ICU trial group*

ABSTRACT

BACKGROUND

Prophylaxis for gastrointestinal stress ulceration is frequently given to patients in the intensive care unit (ICU), but its risks and benefits are unclear.

METHODS

In this European, multicenter, parallel-group, blinded trial, we randomly assigned adults who had been admitted to the ICU for an acute condition (i.e., an unplanned admission) and who were at risk for gastrointestinal bleeding to receive 40 mg of intravenous pantoprazole (a proton-pump inhibitor) or placebo daily during the ICU stay. The primary outcome was death by 90 days after randomization.

RESULTS

A total of 3298 patients were enrolled; 1645 were randomly assigned to the pantoprazole group and 1653 to the placebo group. Data on the primary outcome were available for 3282 patients (99.5%). At 90 days, 510 patients (31.1%) in the pantoprazole group and 499 (30.4%) in the placebo group had died (relative risk, 1.02; 95% confidence interval [CI], 0.91 to 1.13; $P=0.76$). During the ICU stay, at least one clinically important event (a composite of clinically important gastrointestinal bleeding, pneumonia, *Clostridium difficile* infection, or myocardial ischemia) had occurred in 21.9% of patients assigned to pantoprazole and 22.6% of those assigned to placebo (relative risk, 0.96; 95% CI, 0.83 to 1.11). In the pantoprazole group, 2.5% of patients had clinically important gastrointestinal bleeding, as compared with 4.2% in the placebo group. The number of patients with infections or serious adverse reactions and the percentage of days alive without life support within 90 days were similar in the two groups.

CONCLUSIONS

Among adult patients in the ICU who were at risk for gastrointestinal bleeding, mortality at 90 days and the number of clinically important events were similar in those assigned to pantoprazole and those assigned to placebo. (Funded by Innovation Fund Denmark and others; SUP-ICU ClinicalTrials.gov number, NCT02467621.)

The authors' full names, academic degrees, and affiliations are listed in the Appendix. Address reprint requests to Dr. Perner at the Department of Intensive Care, Rigshospitalet, Blegdamsvej 9, DK-2100 Copenhagen, Denmark, or at anders.perner@regionh.dk.

*A list of the members of the Stress Ulcer Prophylaxis in the Intensive Care Unit (SUP-ICU) trial group is provided in the Supplementary Appendix, available at NEJM.org.

Drs. Krag and Marker contributed equally to this article.

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Network meta-analysis of surgical management of gastro-oesophageal reflux disease in adults

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Background: Proton pump inhibitors are the mainstay of treatment for gastro-oesophageal reflux disease, but are associated with ongoing costs and side-effects. Antireflux surgery is cost-effective and is preferred by many patients. A total (360° or Nissen) fundoplication is the traditional procedure, but other variations including partial fundoplications are also commonly performed, with the aim of achieving durable reflux control with minimal dysphagia. Many RCTs and some pairwise meta-analyses have compared some of these procedures but there is still uncertainty about which, if any, is superior. Network meta-analysis allows multiple simultaneous comparisons and robust synthesis of the available evidence in these situations. A network meta-analysis comparing all antireflux procedures was performed to identify which has the most favourable outcomes at short-term (3–12 months), medium-term (1–5 years) and long-term (10 years and more than 10 years) follow-up.

Methods: Article databases were searched systematically for all eligible RCTs. Primary outcomes were quality-of-life measures and dysphagia. Secondary outcomes included reflux symptoms, pH studies and complications.

Results: Fifty-one RCTs were included, involving 5357 patients and 14 different treatments. Posterior partial fundoplication ranked best in terms of reflux symptoms, and caused less dysphagia than most other interventions including Nissen fundoplication. This was consistent across all time points and outcome measures.

Conclusion: Posterior partial fundoplication provides the best balance of long-term, durable reflux control with less dysphagia, compared with other treatments.

Presented in part to the Annual Surgical Research Society Meeting of the Royal Australasian College of Surgeons, Adelaide, South Australia, Australia, November 2017, to the Annual New Zealand Association of General Surgeons Meeting, Paihia, New Zealand, March 2018, and to the 87th Annual Scientific Congress of the Royal Australasian College of Surgeons, Sydney, New South Wales, Australia, May 2018; published in abstract form as *ANZ J Surg* 2018; 88(Suppl 1): 216

Paper accepted 29 May 2018

Published online 13 July 2018 in Wiley Online Library (www.bjs.co.uk). DOI: 10.1002/bjs.10924

Introduction

Gastro-oesophageal reflux disease (GORD) affects up to 20 per cent of the population in the Western world¹. Proton pump inhibitor (PPI) therapy has been the mainstay of treatment for the past 20 years, with surgery reserved mainly for patients with refractory GORD². However, the cost, inconvenience and potential side-effects of long-term acid suppression mean that many patients prefer surgery^{3,4}, and several recent RCTs^{4–7} have confirmed the long-term cost-effectiveness of surgical intervention compared with

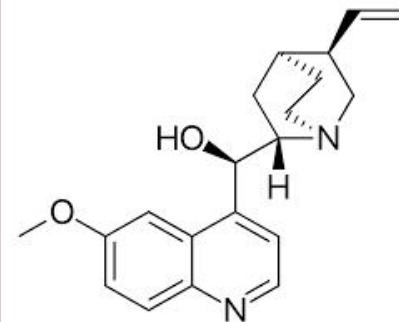
continued medical therapy. Surgical procedures for GORD largely involve the creation of a flap valve by wrapping the gastric fundus around the gastro-oesophageal junction (so-called fundoplication)⁸. Several variations of this are commonly performed, including total 360° (Nissen) fundoplication⁹, and partial fundoplication positioned either posterior or anterior to the oesophagus as it enters the abdomen via the oesophageal hiatus of the diaphragm. The aim of partial wraps is to reduce the incidence of dysphagia, but the potential disadvantage is poorer reflux control¹⁰.

QUININE

The most famous plant medicine from the New World has a long and fascinating history. In Peru, South America, around 1629-39, physician, Juan del Vega, tried a local remedy called quina bark for a serious disease (malaria). To the amazement of all, the patient countess of cinchona, recovered. Famous botanist Linnaeus later named the genus *Cinchona* in honour of the countess.

In Paris, Pierre Joseph Pelletier, professor of pharmacy in the medical school, and Joseph Coventou, a student of pharmacy, jointly firmed up their mind to solve the mystery of "**cinchona bark**". After sweating out for months in 1820, they announced the method of separation of quinine and cinchonine from the cinchona barks.

Caventou and Pelletier prepared pure salts of quinine had them tested clinically, and set up manufacturing facilities. Thus the cure for malaria was found long before its etiology was known, since Charles Laveran, only in 1880, first identified the malarial parasite on unstained blood film.



PEARLS OF WISDOM

Fate doesn't decide; you do!

- Dominic



It is better to ask some of the questions than to know all the answers.

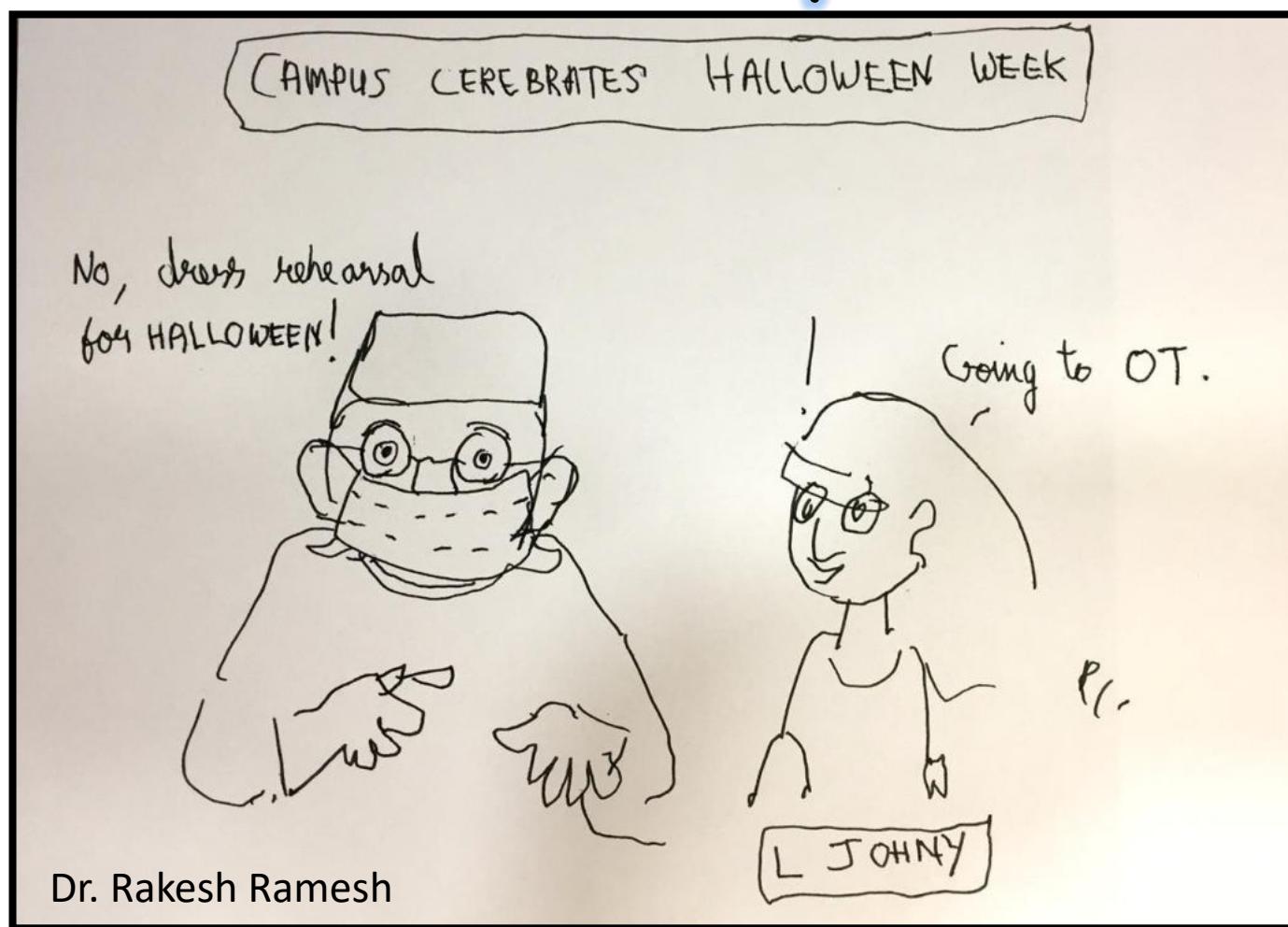
-James Thurber

I expect to pass through this world but once. Any good, therefore, that I can do or any kindness I can show to any fellow creature, let me do it now. Let me not defer or neglect it, for I shall not pass this way again.

-Stephen Grellet

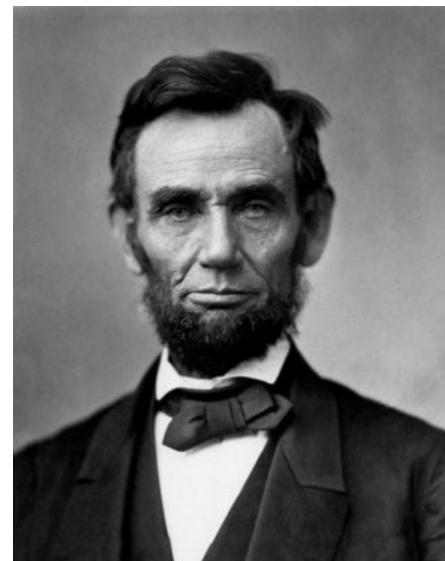


L Johnny



Did You Know?

US President Abraham Lincoln was an ace wrestler before he became a politician. With over 300 bouts to his credit, the “Great Emancipator” was inducted to the National Wrestling Hall of Fame for this sporting excellence!



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