

Hi!

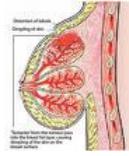
We are all going through the deadly combination of load shedding and scorching summer. It must be tough for everyone. But good thing is that the dreaded summer is half over; and relief from heat appears in sight. This time of the year, mind and body wishes to wonder away from humdrum of medicine, but there are



few interesting issues that are worth a look *This time let us discuss* - A) Nonsurgical Evaluation of Pathologic Nipple Discharge B) Warning signs for public health in India C) Is urine analysis at the point of care accurate for detecting proteinuria D) Post-operative fever

Nonsurgical Evaluation of Pathologic Nipple Discharge

A case of nipple discharge prompted me to research this area. And I found this article from Annals of Surgical Oncology; here the authors studied 108 patients & they concluded that Preoperative evaluations by mammography,



Hemocult, ductography, and cytology are poor predictors of histological diagnosis. **These data suggest that patients with pathologic nipple discharge should undergo surgical biopsy for accurate diagnosis.** Check out the details on *Page 2*

Chikungunya fever, falciparum malaria, dengue fever, Japanese encephalitis ... are we listening to the warning signs for public health in India?

Spotted this eye catching headline in Indian Journal of Medical Ethics. *"If disease is an expression of individual life under unfavorable conditions, then epidemics must be indicative of mass disturbances of mass life... Epidemics resemble great warning signs on which the true statesman is able to read that the*



evolution of his nation has been disturbed to a point which even a careless policy is no longer allowed to overlook." This article is worth going through to understand why these diseases reached epidemic proportions and what should be done about it. Check out rest of the abstract from Indian Journal Of Medical Ethics on *page 3.*

In pregnant women, is urine analysis at the point of care accurate for detecting proteinuria?

I don't know about you, but I was under impression that spot test for protein would be sufficient to diagnose pre-eclampsia. But much to my chagrin, I found that doctors will need to rely on 24 hour



urine protein determinations in hypertensive pregnancies and communicate the importance of accurate collections to their patients Check out the details on *page 4.*

You give me fever! Post-operatively!

That Peggy Lee song is one thing, but, it can be distressing to have nicely operated patient getting fever post operatively. Time and again I get requests to do a 'PS for MP' for such patients. They have always been negative.



Luckily I found this article from Indian Journal of Critical Care taking a look at this problem *This article discusses pathophysiology, diagnosis and treatment of post-op fever. Details on Page 5*

Also in this issue

Usual features like 'Web Links To Interesting Cases' on page 2, Some 'Useful Web Resources' on page3, Jokes on page 4 and 'Parting Thought' by Napoleon Hill on last page. If you would like to hone your swimming skills or would like to teach your child to swim, check out my swimming page -



<http://sachinkale1.tripod.com/swimming.htm> Now it is time for me to shut up, leave; but with a hope that you are having a great summer! *Thanks and regards,*



Sachin

The closer look at health...

**Dr. Sachin Kale,
MD (Pathology),
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Issues since Jan, 2005 available online – <http://sachinkale1.tripod.com>

Leave your *comments* & check others at – <http://sachinkale1.tripod.com/comments.htm> (1, Cont.)

A humble effort towards understanding medical science & becoming a deserving member of robust, science based medical community.

Nonsurgical Evaluation of Pathologic Nipple Discharge



- ⌘ Nipple discharge is a common breast complaint. Because most nipple discharge is a result of benign processes, less-invasive, nonsurgical diagnostic modalities have been explored to reduce the need for surgical intervention.
- ⌘ Between September 1994 and December 2000, 108 female patients aged 25 to 77 years underwent duct excision for bloody or clear nipple discharge.
- ⌘ Results of various preoperative studies were compared with surgical pathology to determine the sensitivity, specificity, positive predictive value, and negative predictive value of these tests in detecting malignant ductal pathology.
- ⌘ Of the 108 surgical histopathology specimens, 90 of 108 patients were **benign**, 5 of 108 patients were **atypical**, and 13 of 108 patients were **malignant**. The **sensitivity of mammography was 57.1%**, **specificity was 61.5%**, **positive predictive value was 16.7%**, and **negative predictive value was 91.4%**.
- ⌘ Hemocult sensitivity was 50%, specificity was 0%, positive predictive value was 20%, and negative predictive value was 0%.
- ⌘ The sensitivity of ductography was 0%, specificity was 90%, positive predictive value was 0%, and negative predictive value was 81.8%.
- ⌘ **The sensitivity of cytology was 11.1%**, **specificity was 96.3%**, **positive predictive value was 50%**, and **negative predictive value was 76.5%**.
- ⌘ **Conclusions: Preoperative evaluations by mammography, Hemocult, ductography, and cytology are poor predictors of histological diagnosis. These data suggest that patients with pathologic nipple discharge should undergo surgical biopsy for accurate diagnosis.**

Web links to Interesting Cases

A mix of cases from my facility; photographs of which might prove interesting to you -

1. Interesting hamartomatous soft tissue tumour from 45 year old female -
<https://telepath.patho.unibas.ch/ipath/object/view/123004>
2. 60 year old female with post-menopausal bleeding: Endometrial adenocarcinoma (Gross and microscopic) -
<http://telepath.patho.unibas.ch/ipath/object/view/123879>
3. Breast lump: Rare variant of breast carcinoma called Adenoid cystic carcinoma:
<http://telepath.patho.unibas.ch/ipath/object/view/125851>
4. 8x6 cm neck mass in a 32 year old female: Carotid body tumour (*Paraganglioma*)
<http://telepath.patho.unibas.ch/ipath/object/view/125843>
5. 56 year old male, Pancytopenia; Bone marrow aspirate showing Acute leukemia
<http://www.flickr.com/photos/sachinkale/485158840/>
6. Macrocytic anemia: Bone marrow aspirate showing Megaloblastic erythropoiesis.
<http://www.flickr.com/photos/sachinkale/485169674/>
7. Immune thrombocytopenic purpura, bone marrow showing Megakaryocytic Hyperplasia
<http://www.flickr.com/photos/sachinkale/485160664/>
8. *P. vivax* in blood film <http://www.flickr.com/photos/sachinkale/485160826/> and
<http://www.flickr.com/photos/sachinkale/485160718/>

(2, Cont.)

Chikungunya fever, falciparum malaria, dengue fever, Japanese encephalitis ... are we listening to the warning signs for public health in India?



- ⌘ The 2005-6 epidemic of Chikungunya fever **highlights the weaknesses of public health in India.**
- ⌘ The **failure to control mosquitoes**, and the illnesses transmitted by them, has resulted in recurrent outbreaks all over the country.
- ⌘ This is inevitable given the **larger scenario**: neglect of the basic requirements of health; poor political support for health; a weak public health capacity; centralised programmes for control based on selective interventions, and poorly-planned development projects which have created conditions ideal for the outbreak of disease.
- ⌘ All these issues are concerns for public health ethics and must be addressed to tackle the problems posed by mosquito-borne as well as other communicable diseases.
- ⌘ "If disease is an expression of individual life under unfavourable conditions, then epidemics must be indicative of mass disturbances of mass life... Epidemics resemble great warning signs on which the true statesman is able to read that the evolution of his nation has been disturbed to a point which even a careless policy is no longer allowed to overlook."
- ⌘ **Rudolph Virchow's insights** are prescient more than a century and a half after they were made as we continue to wrestle with the old epidemics of tuberculosis and malaria, new epidemics like HIV disease, cardiovascular diseases and cancer, and resurgent epidemics of dengue and Chikungunya fever.
- ⌘ This essay seeks to address the issues for ethics and public health posed by the resurgence, after 32 years, of an epidemic of Chikungunya fever in India. It places Chikungunya in the context of other mosquito-borne illnesses, which are taking a heavy toll of health and life in India.
- ⌘ **The refrain of health care and public health professionals is that the social and political factors are outside their domain.**
- ⌘ In our own domains, do we do all that we can to reduce the economic cost of disease to our people?
- ⌘ Should we in public health continue to be apologists for faulty social policies and processes, cloak results in terms of germ and diseases, and push pills, micronutrients and vaccines? **Public health in India needs skilled professionals but it also requires strong advocates.**

Rest can be checked out at - <http://www.ijme.in/151sa18.html>

Internet under Microscope: Website Watch

Project Gutenberg – www.gutenberg.org

I knew about this website, but where do I go, when I felt like reading those old Conan Doyle, Sherlock Holmes adventures? **Project Gutenberg! And they don't charge a penny too!**

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(3, Cont.)

Review: point of care dipstick urinalysis has low accuracy for detecting proteinuria in pregnancy



- ⌘ Pre-eclampsia is characterised by the triad of **hypertension, oedema, and proteinuria > 300mg/24 hours**.
- ⌘ Because of the difficulties in obtaining complete 24 hour collections, point of care **dipstick urinalysis** is frequently used as a **screening tool**.
- ⌘ In this systematic review, Waugh *et al* make a convincing argument that **this approach lacks the accuracy to be used in routine patient care**.
- ⌘ Are there potential alternatives to the gold standard 24 hour collection? One is shorter time frames. Comparisons of 8, 12, and 24 hour urine collections show that the 8 hour sample correlates well with 24 hour samples in patients with proteinuria but not in those without, while 12 hour samples correlated significantly with the 24 hour results for patients with no, mild, or severe proteinuria.
- ⌘ Another potential and more practical alternative is measuring protein:creatinine ratios of spot urine samples.
- ⌘ A study in which 138 women had random protein:creatinine ratios compared with 24 hour urine collection suggested that cut points could be found that would rule out or rule in proteinuria with moderate accuracy.
- ⌘ In contrast, other data did not support the use of the protein:creatinine ratio as a screening tool, so this promising test is not yet ready.

The poor operating characteristics of dipstick urinalysis in detecting proteinuria found in this study, together with lack of evidence for an alternative diagnostic approach, mean physicians will need to rely on 24 hour urine protein determinations in hypertensive pregnancies and communicate the importance of accurate collections to their patients.

Summary estimates of the diagnostic accuracy of point of care dipstick urinalysis for detecting proteinuria*

Level of urine dipstick (number of studies)	Pooled estimates			
	Sensitivity (95% CI)	Specificity (CI)	+LR	-LR
≥1+ (visual) (6)	55% (37 to 72)	84% (57 to 95)	3.5 (1.7 to 7.3)	0.60 (0.45 to 0.80)
≥1+ (automatic) (1)	82% (71 to 90)†	81% (71 to 89)†	4.3 (2.8 to 6.6)	0.22 (0.14 to 0.36)

*Reference standard cut point was 300 mg/24 hours. Diagnostic terms defined in glossary.

Humor corner

Cochrane's Aphorism: Before ordering a test decide what you will do if it is
(a) Positive
(b) Negative
If both the answers are the same, don't do the test.

From: <http://www.geocities.com/HotSprings/Resort/3201/murphy.html>

Funny One liners!

- ☺ Be nice to your kids. They'll choose your nursing home.
- ☺ For every action there is an equal and opposite criticism.
- ☺ I took an IQ test and the results were negative.
- ☺ I'm not a complete idiot, some parts are missing!

From: <http://www.jokesandhumor.com/jokes/362.html>



(4, Cont.)

Postoperative fever.



- ⌘ Postoperative fever should alert the caregiver to the possibility of an infection complicating the recovery of the patient,
- ⌘ But the presence of fever is not a reliable indicator of the presence of infection and the absence of fever does not guarantee that the postoperative patient is infection-free.
- ⌘ The outcome for a patient with postoperative fever is dependent on the cause.
- ⌘ Therefore, postoperative fever should be evaluated with a focused approach rather than in "shotgun" fashion.
- ⌘ Noninfective causes generally have a better outlook than infective causes.
- ⌘ The outcome for the infected patient is dependent on the rapid identification of the cause, appropriate resuscitation, antibiotic treatment and appropriate surgery to eliminate the source.
- ⌘ For pediatric oncology patients who are often immunocompromized, a postoperative fever may indicate an infection, which can lead to significant complications if not treated promptly.
- ⌘ Although a full septic work-up may be unnecessary, additional investigations such as blood cultures may be warranted and an antibiotic therapy should be considered for some or all febrile postoperative cancer patients.

The timing of fever relative to the postoperative day (POD) will indicate the most likely cause. The *five W's of postoperative fever* - *Wind, Water, Walking, Wound and Wonder drugs* - as a useful memory tool could help a physician when he is following patients after surgery.

POD 1-2: *Wind*: *Atelectasis (without air)* often cause fever. Reasons include being on a ventilator, inadequate sighs during surgery and (in the general surgery patient) incisional pain on deep breathing. This is treated with incentive *spirometry* because there is evidence that *deep inspiration* prevents atelectasis better than just coughing .

POD 3-5: *Water*: *Urinary tract infections (UTIs)* are common here. Foley catheters are sometimes still in place.

POD 4-6: *Walking*: *Deep venous thrombosis* can occur. This is more of a problem in patients undergoing pelvic orthopedic or general surgery than in head and neck surgery. Subcutaneous low dose *heparin* and *venous compression devices* reduce the incidence of *thromboembolization* . Walking the patient on POD1 is the best way to prevent this complication.

POD 5-7: *Wound* : Most wound infections occur during this period. *Preoperative antibiotics* are important to prevent or reduce the risk of infection in head and neck surgery that crosses mucosal linings.

POD 7+: *Wonder drugs* : Drugs can cause fevers.(Note that in obstetrics and gynaecology, this W is "womb" and it precedes "Wonder drugs").

Parting Thought...



The greatest achievement was, at first, and for some time, but just a dream.

~ **Napoleon Hill**

(October 26, 1883–November 8, 1970) was an American author who was one of the earliest producers of the modern genre of personal-success literature. His most famous work, *Think and Grow Rich*, is one of the best-selling books of all time.

(End, 5)