APRIL 2013

THE ACMA NEWSLETTER

IN THIS ISSUE:

EDITORS

Hey everyone, Hope this newsletter find you all in good health and cheer. A quick update from us is that the hosting service of the ACMA website has moved from www.godaddy.com to www.justhost.com. There was some downtime for the email systems which has now been fixed. Please email us with any news, pictures, ideas and ads you would like to see in future newsletters to **editors@acma.org.nz.** We've also included summarized CME notes. We hope you enjoy this issue.

Jai Min, John & Varun

FROM THE PRESIDENT

Welcome to the first newsletter for 2013. We had a very successful turnout for our first CME special 'Chinese New Year' dinner, at Sun Millennium restaurant. "Thank you to our sponsors Radius Medical and Abbott for making this possible."

The exec met earlier this month with renewed enthusiasm and great ideas for the upcoming year. I would like to welcome Dr Derek Luo, gastroenterologist and Dr Carlos Lam, GP into our exec committee. This year promises to be full of great talks and worthwhile events. This year, ACMA will also be publishing our List of Doctors with Chinese Language Skills. We will be contacting you in the upcoming weeks to update your details for this. This is also a great time to renew your membership subscriptions!

As you may be aware, this year marks the 25th anniversary of our association's formation.
To commemorate, we will be publishing historical photographs and essays in upcoming newsletters.

Also in keeping with this theme, I am pleased to announce the executive's decision to award an Honorary ACMA membership to Dr Peter Wong. Dr Wong was the first President of our association and was involved with ACMA for a number of years after his term as President, attending our events well into his retirement. In awarding the Honorary membership, the executive thanks Dr Wong for his contribution to our association and congratulate him on a lifetime of service to medicine and to the community.

I look forward to seeing you all at the next dinner meeting.

Best regards,

Kate Yang
President

2013 ACMA TEAM

President
Dr Catherine Yang

Vice President
Dr Adrian Wan

Past President
Dr Weng-Key Chan

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Dr Richard Yu

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Dr Benson Chen

CME Coordinator
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5th Year - Johnny Wu
4th Year – Christopher Wong

Student Preclinical Reps
Gabrielle Nathania Jee
Peter Ting
Kevin Liu

YACMA NEWS

FRESHER CAMP

On the 15th of February we went to freshers with the purpose of meeting 2nd year med students and spreading awareness of YACMA. We ran the YACMA table tennis both nights and managed to attract a lot of people. Kevin and Gabrielle supervised the table tennis while Peter Ting joined the new “Non-Drinking Events” run by Jeremy Mathan. Other YACMA members helped promote the group. The preclinical reps gave a speech to the whole year group about what YACMA is, what we do and how to sign up.

OWEEK STALL

O-week stalls day was held in the quad outside Grafton campus on 5th March with various other organizations setting up stalls to recruit new members. This served to promote YACMA as a follow up from freshers camp and gave students a chance to officially sign up. Fried rice and iced tea prepared the weekend before by the YACMA exec members were given out.

FORTUNE COOKIES

The preclinical reps gave a presentation to the 2nd year med students before one of their lectures on 12th March. Over 700 home-cooked fortune cookies were also distributed amongst the class. Much praise was received from the class. This visit particularly helped promote the YACMA barbeque. We received a good deal of interest and sign ups after both events and both events are definitely worth doing next year.

The editors also placed a 2-page spread introducing the exec and future events in the Med post-O-week magazine, QUACK.

YACMA BBQ

This event was held at Outhwaite Park for medical students on 15th March. It served as means to both promote and uphold YACMA’s reputation of presenting great food at events. Around two hundred students showed up. The event went smoothly and positive feedback was received from those who attended the BBQ.

SPECIAL THANKS TO

David Noh, Justin Sung, Yuan Xu, Chen Zhou, Debbie Chen, Vincent Jeong, Jennifer Chieng, Jophia Kommunuri, Vinka Nurdjaja, Shelly Lee, Sarah Correa, Dulani Jayamaha, Kevin Zheng, Jonathon Bong, Aditya Sheth and Tony Zhang

KEY REMINDERS

Membership

We would like to invite existing members to renew their membership through the membership forms available from the ACMA website or through the Membership secretary. Membership fees can be paid to the Treasurer Dr Benson Chen via cheque.

Looking for new members

Please introduce the Association to your colleagues.

Next CME: 7th April

The "Bring a Colleague" CME meeting will be held Sunday 7th April 2013, beginning at 5:30pm at Lucky Seafood Restaurant (Unit A8, 125 Meadowland Dr, Somerville). Contact Maryanne Ting for more details.

Future CME Dates

Please take note: 19th May, 30th June, 18th August, 22nd September and 17th November (all are Sundays)

OBITUARY

It is with great sadness I heard of the passing of a dear member and colleague Dr Annie Low. Annie was a valued member of ACMA since a few years after its inception, and had been an executive committee member for a number of years. She contributed in many ways, especially in guiding and supporting students.

Annie moved to Fiji from China at a young age and excelled academically. She was also a keen tennis player and represented Fiji in women's tennis. She attended Otago medical school at a time when female and Chinese students were few and far between. Annie practiced as a GP and was also a busy wife and mother. She was an active member of the Auckland Chinese Medical Association right up to the end, when her ailing health took up her energy. She will be very much missed.

Chinese Health Awareness Initiative New Zealand

The Chinese Health Awareness Initiative New Zealand (CHAINZ) is a working party under the umbrella of ACMA with a vision is to have reliable Chinese information available to the general public. The CHAINZ team consists of Derek Luo, Consultant Gastroenterologist Middlemore Hospital, Andrew To, Consultant Cardiologist North Shore Hospital, Paul Cheng, Surgical Registrar, Willy Wang Surgical Registrar, Tina Sun, Medical Registrar. We have been given an opportunity to use increase health awareness to the Chinese population by participating in a talk show on World TV 8 on Thursday evenings between 7-8pm. In conjunction with David Wu who is a GP, we are planning to invite various mandarin speaking doctors to give a talk to the general public on various health matters. **We are seeking Mandarin or Cantonese health workers to participate.** Please contact Derek Luo (derek.luo@middlemore.co.nz, 021 535882) if you are able to help or if you know someone who may be interested in helping with this project. GPs, Specialists, Dentists all allied health workers welcome.

Additionally, we have set up a website so we can have a discussion forum from viewers to ask questions. The link is : http://chainz.org.nz/ - a lot of hard work has gone into this from Paul Cheng and Tina Sun. Our aim is to use this website to put up to date information in Chinese. Our vision is that all ACMA member will be able to submit things that would be informative to Chinese patients.

INTERVIEW: DR CARLOS LAM

Get to know the latest addition to the 2013 ACMA exec, by Jai Min & Varun

We see you went to Otago med school not too long ago (2000-2008). Could you tell us a bit about your journey that's now landed you in Auckland?
Well it was pretty straightforward. I basically applied for GP training in Auckland in my Senior House Officer year while still in Dunedin and got accepted following an interview up in Auckland in Aug 2011. The rest is pretty much history.

You have a diploma in pediatrics. How does that fit in into GP? Potential specialization?
I got a Diploma in Child Health because it was almost a requirement for me to do one when I did the house officer Paeds attachment in Dunedin Hospital. Paeds is pretty much compulsory if you want to do General Practice as you will be seeing a lot of kids, especially if you work in suburban areas.

> "the couch I am using at the moment, I would like to ... burn <evil smile>"

We were told your a new member of the ACMA exec. What inspired this? e.g. was there a YACMA-like club in Dunedin? And where would you like to see ACMA moving in the future?
I thought I would contribute to the well-being of the Chinese Community as living in East Auckland predisposes you to encountering many Chinese patients. I also wanted to be part of an organization that is both a charity and a professional organization with CME events that helps fulfil the life-long learning requirement of my GP training. As far as I know, there is not really a Chinese Medical Association in Dunedin due to the small numbers of Chinese people in general. I would like ACMA to move towards more charitable works and community-based activities - not just for the benefit of its doctor members, but also for the benefit of the Chinese Community as a whole.

What do you consider to be the biggest issue facing GPs/your practice in Auckland?
The large issue facing GPs is the general lack of junior doctors wanting to go into General Practice, especially in the rural areas and smaller centres. As many of the older GPs retire, there will potentially be a shortage of GPs in those hard-to-staff areas due to recruitment issues. The biggest issue facing me in my practice personally is not being able to speak Mandarin when a large percentage of the Chinese patients speak it.

What do you like to do in your spare time/interests?
I like travelling, hiking, hanging out with friends, having a good discussion about random things e.g. politics/history/psychology/philosophy/anthropology etc, eating good food, surfing the net, reading a good book and watching movies.

Any advice for current med students?
Consider GP as a career. If you fancy yourself being a Jack of All Trades, like to have a life outside of the hospital call roster, like to be your own boss, like the business side of GP, like seeing your own patient base grow like a good investment and get satisfaction from seeing a huge variety of medical, surgical, social, and psychological issues (and are a good communicator), then this is for you.

Favourite restaurant in Auckland?
Golden Jade Restaurant in Greenlane/Epsom, Sid Art in Ponsonby and Tanuki's Cave in town.

How many couches have you burnt?
Personally none, although the couch I am using at the moment, I would like to throw away or burn <evil smile>.

Auckland or Dunedin?
Auckland: I love the city - it's so vibrant, busy, happening and multi-cultural. However, Dunedin will always have its charms.

Thanks Carlos!

Restaurant Review

By John Mak

There is just something spellbinding about the idea of dining in the Auckland CBD on a tranquil Saturday afternoon. CBD and tranquillity – they form quite the oxymoron, 2 words you'd hardly expect to put together in single sentence. Yet just a street off the beaten track that is Queen Street, it is amazing how quickly one escapes from the hustle and bustle to the serene shopping and dining courtyard of Chancery Square. It was there that we stumbled across Sukhothai, a gem hidden smack bang in the middle of the city, corner of Chancery Street and O'Connell Street.

As the restaurant is itself hidden within the Chancery Chambers, spotting the entrance to Sukhothai may prove to be quite the challenge if not for the gold coloured signs on the exterior of the building. In fact, the golden-yellow motif (particularly adored by Thai royalty) runs throughout the interior of the restaurant, drawing from the traditionalism of Thai culture but with a touch of modern day simplicity. The wooden furnishing basking in the golden rays of afternoon sun only adds to the serene ambience of the venue, with a range of seating capable of catering for couples to families.

While we were busy taking in the atmosphere of the surroundings, our complimentary soup of the day came within minutes of our order. The Thai chicken curry served with an assortment of sliced cabbages, onions and carrots was delightfully rich in coconut cream (a must for any quintessential Thai curry). And although the presentation was minimalistic, it was inviting, Our haphazard discovery was quickly turning into a pleasant surprise.

For those who are perhaps less well acquainted with Thai food and struggling to decide on a main, a good dish to test the waters would be the Panaeng curry – signature rice dish of Sukhothai with an option of chicken, pork or beef. Simmered in just the right balance of homemade coconut cream and Panaeng curry paste, the sauce has hints of milky sweetness intricately woven into the zing of the spices. A few slices of fresh capsicum, carrot and cucumber give the dish an extra dash of vibrancy and texture but is by no means there to fulfil your 5 greens a day.

Having just returned from a trip to Thailand over summer, I was delighted to find Sukhothai delivering on its promise of serving an authentic Thai flavour. Now that also means an authentic level of spiciness. While I fancy myself as quite the chilli buff, boy was I glad that I settled for Kiwi hot instead of challenging the dish on Thai hot.

Our other main was the traditional Thai beef noodle soup, which came with a generous serving of meat and a variety of herbs, celery, parsley and bean sprouts sprinkled atop. We found the dish a tad on the sweet side and slightly greasier than its Taiwanese cousin but nonetheless a refreshing change from the richness of the curry. The tenderness of the beef complemented the crunchiness of the greens well to produce a lovely combination of textures. Also, while the serving size may deceivingly seem small at first sight, note that it is only because the bowl is much bigger than it might appear.

"Our haphazard discovery was quickly turning into a pleasant surprise."

For drinks, we ordered fresh coconut juice and Thai style milk tea. While the coconut isn't exactly fresh from the tree like the ones in Thailand, it was quenching and had the sweetness which comes from riper coconuts. It's definitely a drink worth trying for those who are keen on getting the authentic coconut taste, and definitely a good idea for those who are adventurous enough for a dish of Thai hot spiciness.

In a nutshell, I was happy with the quality of food and the service we received. Both mains came with the complimentary soup at $13 for a very satisfying meal while the drinks ranged between $3-5. There is also a fully licensed bar onsite serving wine to go with the meal or shots for that special occasion. Definitely worth a try if you're in town and craving for some Asian food.

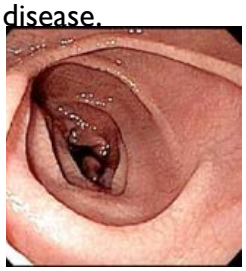
Gastroenterology Update

Derek Luo, Gastroenterologist,
ACMA CME 17.2.2013

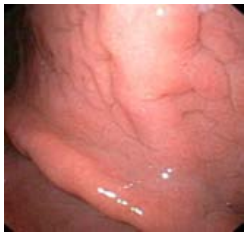
There are some things that need to be considered when dealing with an Asian GI patient. In addition to cultural differences, they tend to give vague histories which necessitate the need to ask very specific questions. They often present late, first they tend to alter their diet, seeking medical attention quite late, and often relying on traditional Chinese medicine first. Common presentations include dyspepsia and abdominal bloating. Here we will look at 3 case studies:

Case 1:

- 25 year old female Chinese
- Upper and lower abdominal pain and bloating, tendency to constipation
- 4-5kg weight loss due to food restriction
- Short history of around 2 months only
- Positive faecal occult blood test
- Normal iron/B12, Hb normal
- Impression: functional dyspepsia and C-IBS
- Decision made to proceed to gastroscopy and colonoscopy
- Colonoscopy: scalloping and fissuring were seen, with macroscopic evidence of villous atrophy, consistent with coeliac disease.



- Histology confirms villous atrophy and intraepithelial lymphocytosis. Levels for ttG-IgA and DGP were both above 100.
- Gastroscopy: mild erythema was seen, biopsy showed Helicobacter pylori related gastritis



Coeliac disease:

Small bowel mucosal inflammation and villous atrophy mediated by immune complexes as a result of exposure to luminal gluten peptide. It is rare in China and Japan, and is more common in northern India compared to the south. Incidence is related to per capita consumption of wheat and the frequency of specific human leukocyte antigens (HLA) - DQ2 (90-95% of those with CD) and DQ8 (5-10%).

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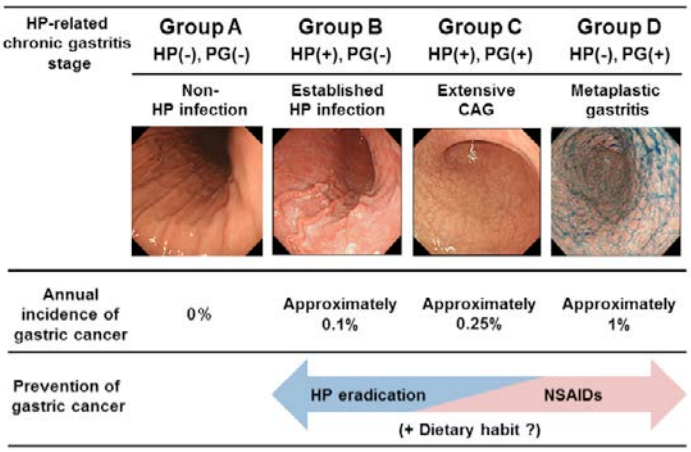
Helicobacter pylori:

It is the most common cause of gastric ulcers and cancer. The majority of infected individuals will not develop clinical disease. The cag pathogenicity island strain of H. pylori and IL-1b allele polymorphisms in the infected are associated with a higher risk of gastric cancer. Infection is protective against Barrett's oesophagus, oesophageal adenocarcinoma, asthma and other atopic disorders - so eradication is recommended only in high risk populations.

Indications for eradication include:

- Peptic ulcer disease



- Gastric MALT lymphoma
- Family history of gastric cancer
- Hypertrophic gastritis (Menetriers)
- Prior to long term NSAIDs
- Non-ulcer dyspepsia
- Atrophy/intestinal metaplasia

Eradication

- Maastricht III Consensus: First Line Therapy

o Triple therapy: PPI BD plus clarithromycin 500mg + amoxycillin 1g BD (or metronidazole 500mg BD)

o Quadruple therapy: PPI BD + bismuth colloid 240mg BD + metronidazole 500mg BD + tetracycline 500mg BD for 10-14 days

- Sequential therapy: uses tinidazole which has a longer half life than metronidazole, superior to standard eradication in USA, but not the case in Latin America
- Concomitant therapy: PPI + amoxycillin + clarithromycin + metronidazole, has 90% efficacy but no RCTs

Options for refractory Hp

- Levofloxacin (ciprofloxaxin is not effective) - PPI + amoxycillin + levofloxacin (note that there is high resistance to levofloxacin in south east Asia)
- Rifabutin - used to treat mycobacterial infection. Has lower efficacy compared to levofloxacin. Rifabutin resistance is low, adverse effects include leukopenia.
- Hybrid sequential therapy: PPI + amoxycillin 1g BD for 7 days then PPI + amoxycillin 1g BD + clarithromycin 500mg BD + metronidazole 500mg BD for 7 days [Hsu et al. Helicobacter 2011 - 99% eradication rate (intention to treat 97%)]
- Treatment for hard to treat Hp depends on the indication. Consider bismuth and tetracycline based antibiotics via Named Patient Pharmaceutical Access (NPPA) scheme via Pharmac website.

o Colloidal bismuth citrate (De-Nol) 120mg tablets - 240mg BD, omeprazole 20mg BD, tetracycline 500mg BD 1/2 hour pre meals and

o metronidazole 400mg tds for 10 days

o For very strong indications consider culturing for antibiotics sensitivity

Functional dyspepsia:

It is a major cause of endoscopy negative dyspepsia (60% of cases). Other causes include GORD, chronic pancreatitis, malignancy and gastroparesis (uncommon). According to the Rome III Diagnostic Criteria, functional dyspepsia will show epigastric pain syndrome (epigastric pain, epigastric burning) and/or meal related symptoms (early satiation, post-prandial heaviness or fullness). There is some overlap between FD and GORD, with 2/3 of FD cases responding to PPIs.

FD: Therapeutics

- Hp eradication: test and treat
- PPI - does work but most fail (placebo for meal related symptoms)
- Double does PPI - very small benefit for epigastric pain group only with omeprazole
- Prokinetics

o Cisapride - better than placebo

o Domperidone - no good data available

o EES - commonly causes nausea

o Akotinamide - modest benefit

- Tricyclics - don't really work
- SNRI - venlafaxine works for nonerosive reflux disease for FD
- Mirtazapine

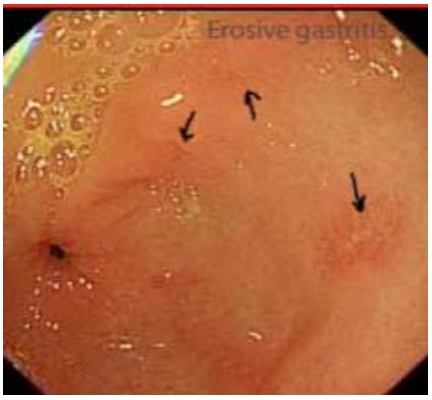
Case 1 summary:

- Coeliac disease was suspected despite its uncommonness in Chinese. Patient had positive antibody tests and abnormal LFTs, awaiting biopsy results.
- With respect to Helicobacter pylori, her risk of gastric cancer overall is low however I would do a trial eradication.
- For her functional dyspepsia, carry out Hp eradication and prescribe TCA/SSRI despite limited evidence for their use.

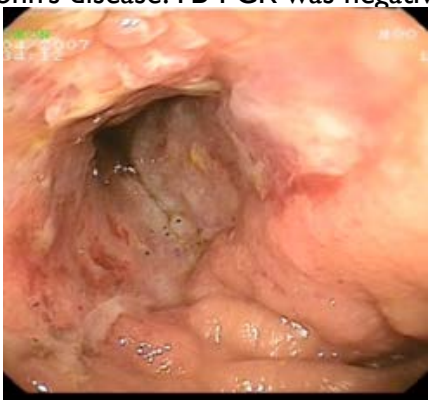
Case 2

- 29 year old male chef
- Intentional weight loss of 15kg
- Mild post prandial blowing with epigastric and lower abdominal pain
- Diarrhoea 4-5 x days
- No rectal bleeding
- Otherwise well, no family history

Gastroscopy findings: gastric erosions were seen, and Helicobacter pylori was detected on biopsies. The duodenum was normal.



Ileocolonoscopy findings: ileal ulceration and ileo-caecal valve ulceration were seen, in addition to colonic skip lesions (moderate inflammation). Histology suggested Crohn's disease. TB-PCR was negative.



Although there are differences in prevalence, IBD is increasing in Asians for various reasons. There are no major difference in initial management, and an open mind should be kept to watch out for IBD in Asian patients.

Table 1. Updated Incidence Rates of Inflammatory Bowel Disease in Asia

Study	Country	Methods	Incidence dates	Ulcerative colitis*	Crohn's disease*
EAST ASIA					
Yao *et al.* (3)	Japan	National register of patients receiving medical certificate of benefit	1998	–	1.20
			1991	–	0.90
			1986	–	0.60
Morita *et al.* (1)	Japan	Survey of nation-wide hospitals (>200 beds)	1991	1.95	0.51
Yang *et al.* (23)	South Korea	Combined data from all medical facilities within a well-defined district	2001–2005	3.08	1.34
			1996–2000	1.74	0.52
			1991–1995	0.87	0.22
			1986–1990	0.34	0.05
Lok *et al.* (27)	Hong Kong	Data from a regional hospital serving a well-defined catchment area	2006	0.40	–
			2001	0.85	–
			1997	0.35	–
Leong *et al.* (6)	Hong Kong	Data from a tertiary center serving a well-defined catchment area	1999–2001	1.20	1.00
			1990–1992	0.80	0.40
SOUTH ASIA					
Sood *et al.* (22)	North India, Punjab	Community survey of a well-defined district with medical evaluation of all cases	1999–2000	6.02	–
WEST ASIA					
Abdul-Baki *et al.* (24)	Lebanon	Cohort study based on health maintenance organization record	2000–2004	4.1	1.4
Al-Shamali *et al* (99)	Kuwait	Data from a tertiary center (evaluating all cases within the country)	1985–1999	2.80	–
Niv *et al.* (25)	Israel, Kibbutz	Community-based survey of physicians	1987–1997	5.04	5.0

Case 3

- 45 year old male lawyer
- Ex smoker, hypertension, no other cardiac risk factors
- Moderate alcohol consumption
- Chest pain intermittently for 3 months
- Admitted for a cardiac work up - negative troponin s and ETT
- Hp serology negative
- No alarm signs, no lower GI symptoms, no significant family history
- Bloods normal
- 2 month trial of once daily PPI ineffective

Suggested algorithm for unexplained chest pain

- Endoscopy
- pH testing
- Look for oesophageal dysmotility (eg manometry), anxiety, depression, somatisation, microvascular angina

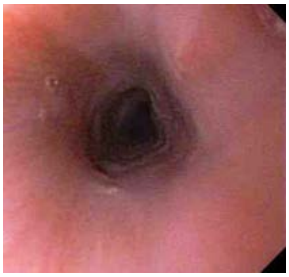
Chest pain was treated as non-cardiac in nature. Chest pain can be a major symptom of GORD. For non-cardiac chest pain objective evidence of GORD (positive pH study or OGD) is strongly predictive of a response to PPI therapy. Heartburn and regurgitation is not a consistent predictor of PPI response. Patient was started on a 2 month trial of PPI once daily at a standard dose half an hour before meals. Ranitidine was also added in. However patient still experienced disabling symptoms. OGD was normal macroscopically and biopsies were normal too. 10-40% of those with suspected GORD are resistant or partial responders to PPIs. The majority will have NERD (normal OGD with abnormal acid exposure on pH study). Many patients do not actually have GORD but have functional heartburn or dyspepsia. Reasons for the failure of PPI therapy include persistent acid, bile or gas reflux, impaired mucosal integrity, chemical or mechanical hypersensitivity to refluxates, psychological comorbidity, functional dyspepsia and IBS.

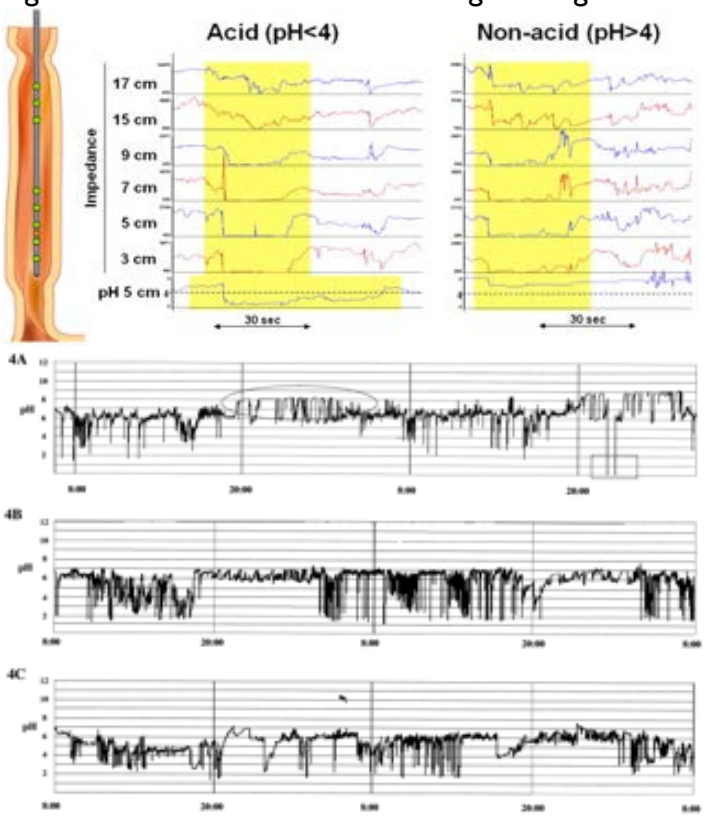
Diagnostic evaluation: After thorough clinical evaluation and failure of empirical changes in PPI dose regime, diagnostic investigations include endoscopy and reflux monitoring with pH or pH-impedance monitoring.

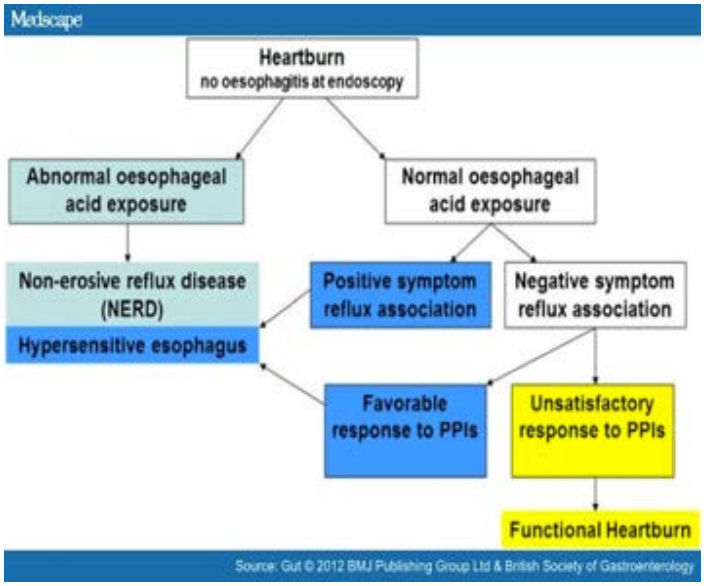
OGD

pH impedance

Changes in lifestyle and diet have been found to be effective in management. In particular weight loss, raising the head of the bed and avoiding late night meals







was effective. Active diaphragmatic exercise have been shown to improve pH studies, quality of life and PPI use. A large proportion if those who failed standard does PPI therapy did not really carry out these lifestyle changes. With regards to diet, there is no good evidence to exclude spicy or acidic foods. Fat however can increase oesophageal sensitivity.

Therapies:

When putting patients on PPI therapy, check dosing, timing and compliance. There is no strong scientific evidence to support switching to another PPI for persistent symptoms, however some data shows benefit in switching to esomeprazole when another brand failed, and this seems to work in practice. There is virtually no data to support double doses of PPI. If lansoprazole 30mg fails, lansoprazole 30mg BD or omeprazole 40mg daily or esomeprazole 40mg daily can improve symptoms.

Newer drugs: Drugs with faster clinical onset of action eg dexlansoprazole MR, failed to demonstrate any clinically significant improvements in both healing rates or oesophagitis symptom control. Potassium-competitive acid blockers eg pevaprazan, block proton pumps via a different mechanism but these also failed to demonstrate any significant improvement over existing treatments in patients with reflux oesophagitis. Neither types of drugs are used in patients with refractory reflux.

Add on therapies with PPIs: There is no data to support the use of prokinetics in patients with refractory reflux symptoms, but it is still done. Adding alginates to omeprazole 20mg has been shown to improve symptom control. Nocturnal gastric acid breakthrough occurs in >75% of patients on BD PPI and adding H2RAs at bedtime improves nocturnal gastric acid control in GORD patients (whether this translates into improved clinical efficacy has not get been clearly established).

Baclofen: Transient lower oesophageal sphincter relaxations (TLOSRs) are the main mechanism of reflux. Baclofen is a GABA beta agonist that decreases TLOSRs, leading to a reduction of reflux events and reflux symptoms too. There is evidence that 10mg TDS improves symptoms in GORD patients but its use is limited by side effects and poor tolerability (dizziness, drowsiness, nausea and vomiting). Newer agents such as arbaclofen and lesogaberan have less side effects, but have not been shown to be effective.

Pain modulators: in patients with oesophageal hypersensitivity and functional heartburn, use of tricyclic antidepressants and SSRIs (eg citalopram 20mg daily) have been found to be effective due to the visceral analgesic effect.

Endoscopic therapy: The Stretta procedure (radiofrequency energy delivery) could be effective in decreasing oesophageal sensitivity to acid by destroying sensory nerves. This method can be considered a pain modulator technique and should be tested in hypersensitive oesophagus, functional heartburn and in patients with persisting symptoms despite PPIs. Transoral incisionless fundoplication using EsophyX offers a less invasive alternative to laparoscopic fundoplication that has been, as many other endoscopic approaches, mainly evaluated in PPI dependant GORD patients. The potential value of this technique should be further evaluated in controlled prospective trials.

Anti-reflux surgery: Surgery has been shown to be effective for acid and non-acid reflux. However it is important to note that patients who fail to improve with PPI treatment do worse with surgery. Overall, surgery may be an option for those with an abnormal pH study with positive symptom correlation off PPI therapy (more studies are needed for those on PPI therapy).

Refractory reflux summary:

- Most patents with refractory reflux don't have abnormal oesophageal exposure.
- New drugs are currently under investigation, including those that improve gastric acid suppression, decrease TLOSR rate, improve oesophageal
- Mucosal resistance and oesophagus specific pain modulators.
- Endoscopic treatments aim to reduce oesophageal sensitivity and reduce volume reflux.
- The role of anti-reflux surgery for those with incomplete PPI response is controversial.

So despite being on PPI regularly, our patient still experienced ongoing intermittent symptoms. pH studies and oesophageal manometry returned normal results. Should PPI treatment be continued? Evidence based medicine supports PPI use for GORD, NERD, erosive oesophagitis and functional dyspepsia. There is a low theoretical risk of gastric cancer associated with hypergastrinaemia and achlorhydia, however hypergastrinaemia causes rebound hyperacidity and may worsen GORD symptoms and dyspepsia.

Some potential risks involved in PPI use are:

- Enteric infections eg C. difficile, Campylobacter, Salmonella, Shigella, Listeria
- C. difficile infection is mainly in hospitalised patients

• Infection is 2.5 times more likely if on PPI
• Concomitant use of PPI and antibiotics raises risk 5 fold
• Community acquired pneumonia
• Bone fracture
• Interference with antiplatelet agents
• Nutritional deficiencies

Take home points

• History taking for Asian patients is often challenging and in general patients may be less forthcoming about their histories.
• Coeliac disease is rare and IBD not as common is Asian patients but incidence is increasing.
• Bowel cancer is just as common in Asians.
• If planning on Hp eradication, ensure there is a good indication. Standard Hp eradication appears to be reasonably effective, however better regimes will soon be needed due to emerging antibiotic resistance.
• Long term PPI use - try to use the smallest possible dose. Make sure to occasionally check with the patient whether they still need it.

If you have any questions please contact Derek Luo, 021 535 882, derekluo@middlemore.co.nz

Bioreabsorbable Vascular Stent

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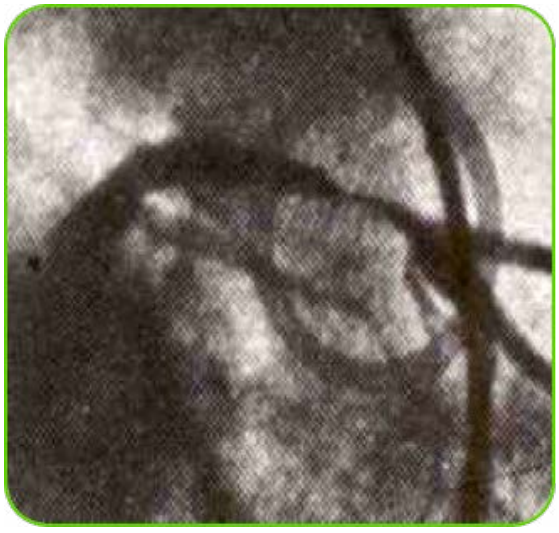
When we are faced with a patient with coronary artery disease, our treatment goals are to improve symptoms (quality of life) and improve prognosis (quantity of life). Common symptoms include angina, breathlessness, tiredness and lower overall well being. Poor prognostic factors include LMS stenosis of greater than 50% diameter loss, triple vessel disease and LVEF of lower than 40%. Current treatment modalities for stable coronary disease are medical drug therapy, coronary artery bypass grafting (CABG), and percutaneous coronary intervention (PCI). Here we will look at the history and recent developments in percutaneous coronary intervention.

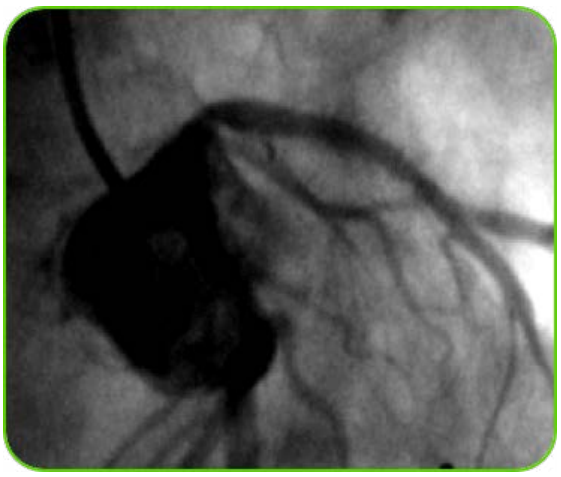
The First Revolution

During the 1980s plain old balloon angioplasty (POBA) came into medical practice. In this procedure, a balloon catheter is introduced to the problematic vessel. The balloon is inflated and compresses the plaque, widening the vessel, and the balloon is then deflated and removed, restoring normal blood flow. This technique carried a high rate restenosis, up to 50%, within the first 6 months. There were also a high rate of procedural complications, including - perforation, dissection, acute vessel closure leading to myocardial infarction and excessive bleeding. This was reserved only for patients on whom medical treatment had failed or patients who could not have surgery.

First POBA and 23-year follow up



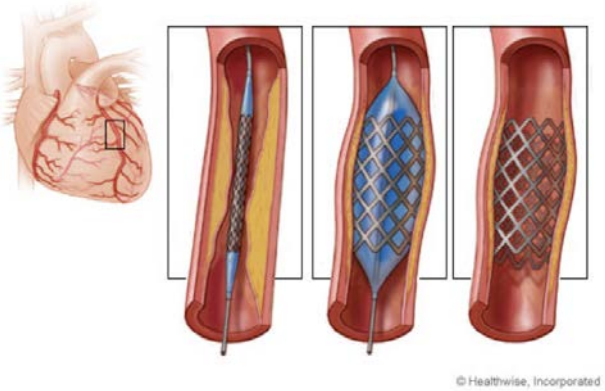
1977



2000

The Second Revolution

The use of bare metal stents (BMS) during the 90s was the second revolution in PCI. In this technique a balloon catheter is used to deploy a metal stent which keeps the vessel open. This had much improved outcomes with a rate of clinical restenosis of between 20-30% within the first 6 months. The use of BMS also greatly reduced the rate of procedural complications and the length of hospital stay for the patient. However its use is still limited in the long le-



sions, chronic total occlusion, bifurcation, ostial lesions, multi-vessel disease and LMS disease etc. due to the much higher rate of clinical restenosis.

The Third Revolution

In 2003 the drug eluting stent (DES) came into use and superseded the BMS. DES are stents that slowly release a drug (eg paclitaxel) to inhibit cell proliferation, preventing fibrosis and restenosis. Clinical studies showed that DES had dramatically reduced rates of clinical restenosis, less than 5% within the first year. Its indications expanded to include long lesions, bifurcation, chronic total occlusion, ostial lesions, multi-vessel disease and LMS disease etc. However DES also increase the potential risk for late (subacute) stent thrombosis and late neo-atherosclerosis, in contrast to early in-stent retenosis caused by BMS.

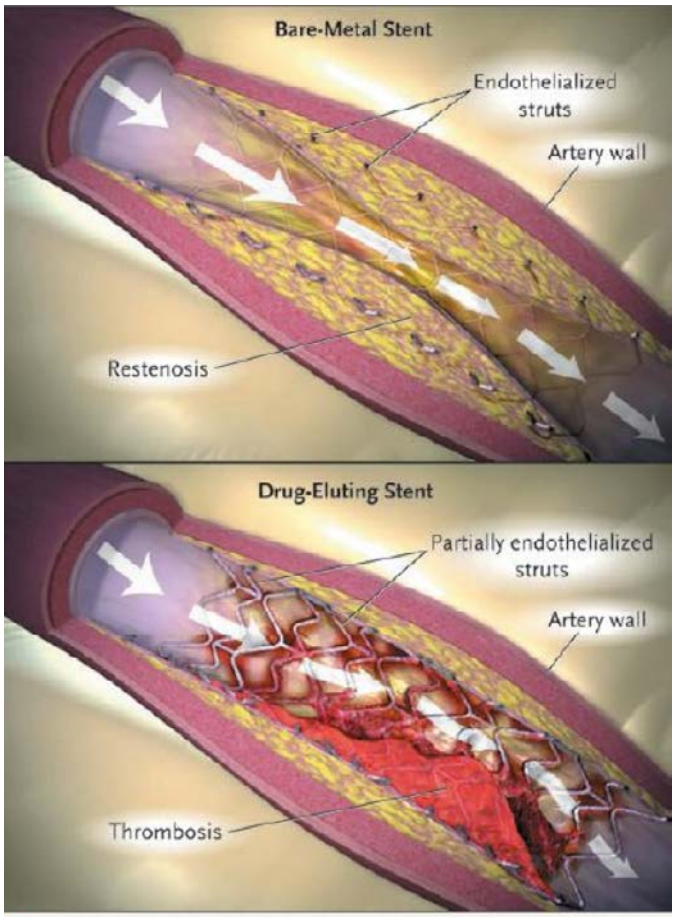
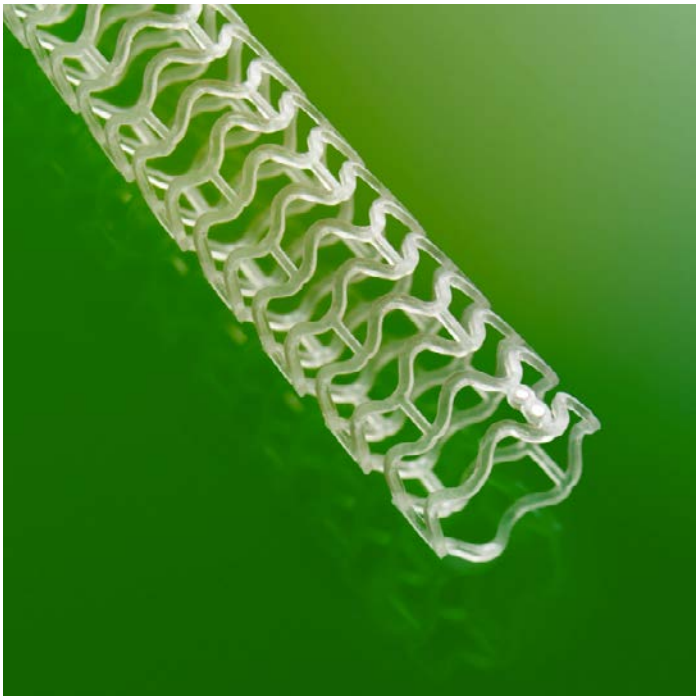


Figure 1. Potential Complications of Coronary Stenting: Restenosis in a Traditional Bare-Metal Stent and Late Thrombosis in a Drug-Eluting Stent.
Arrows indicate blood flow. An animation showing restenosis and stent thrombosis can be viewed at www.nejm.org.

The Fourth Revolution

2012 saw the launch of bioreabsorbable vascular stents (BVS) and it is the latest
development in PCI procedures. Essentially they serve the same purpose as metal stents but are manufactured from a material that may dissolve or be absorbed in the body. The scaffold starts to dissolve at 6 months and is completely gone in 2 years. It is drug eluting, which prevents early in-stent restenosis, and as it is in place for no longer than 2 years it restores normal vasomotor tone and endothelial function and prevents late stent thrombosis and neo-atherosclerosis. However BVS has its limitations. It is made of a plastic-like material and therefore is not very strong (lacks radial and longitudinal strength) and is quite tractable. Its use is presently limited to treatment of type A proximal lesions in young people. Currently BVS is suitable for use in about 10% of patients with stable angina but not in other conditions eg acute MI. Technology is advancing rapidly so these limitations will no doubt be overcome and BVS will revolutionise PCIs in the near future.



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