

## **SPEAKER 8<sup>th</sup> MARCH 2017**

### **PALLIATIVE CARE:**

## **RECENT ADVANCES, FUTURE DIRECTIONS and EFFECTS on the CONSUMER**



**Matthew Grant** is a Palliative Care Physician at Cabrini Health and St Vincent's Hospital, Melbourne. He has a Masters in Bioethics, and

has continued this interest with research in clinical practice, particularly around prescribing and doctor-patient communication. He teaches both undergraduate and postgraduate courses at Monash and Melbourne Universities. Currently Matthew is involved with research in bereavement at the Centre for Palliative Care, and has recently begun a PhD focusing on the importance of social groups and networks. This examines people diagnosed with cancer and the roles, access and importance of both formal (i.e. Support groups, internet forums), non-formal collectives (chatting with others at day oncology or on the hospital ward) and social contact through the diagnosis of cancer. He is very keen to have your input on this subject, and looks forward to learning from you all.

## **DAIRY DECREASES SURVIVAL FROM PROSTATE CANCER**

Dairy intake lowers chances of survival from prostate cancer, according to a study published in the International Journal of Cancer. Researchers followed 525 men with recent prostate cancer diagnoses and tracked dairy product consumption and mortality rates. Those who consumed three or more servings of high-fat dairy a day, including butter, increased their risk of death from cancer when compared to those who consumed less dairy. IGF-1 and other hormones specific to dairy may be the mechanisms behind the increased risk. These findings support previous research on dairy consumption and prostate cancer risk.

*International Journal of Cancer*

<http://onlinelibrary.wiley.com/doi/10.1002/ijc.30642/abstract>

## **HOW TREATMENT HAS IMPROVED OVER 30 YEARS**

*Financial Review 9<sup>th</sup> January 2017 by Jill Margo*

When urologist Professor Tony Costello opened a recent conference on prostate cancer in Melbourne, he told delegates he'd been going through his father's old medical textbooks. His father had been a general practitioner and his well-thumbed textbook on surgery, published in 1940, had very little to offer on the subject of prostate cancer. It said the condition could cause "constant pain" and the likelihood of a man surviving it was "very poor". While there had been successful cases of removing a cancerous

prostate, the text observed darkly that the mortality of such an operation was "considerable". Further, among those who managed to survive, recurrence within two years was the rule.

Delegates of the Asia-Pacific Prostate Conference 2016 were dead quiet when Costello jumped a generation and produced the textbook he had used as a trainee surgeon in the 1970s. It offered no more light, saying that "radical cure by surgery plays a very small part in the management of the condition".

### Grim treatment

Now a distinguished leader in prostate cancer in Australia, Costello well remembers that nihilism and the banter that accompanied it among his young colleagues. By 1970, surgical textbooks weren't offering much more hope for prostate cancer. "The patient may not be dead after surgery, but he sure wishes he was", was one popular line. Surgery for prostate cancer may not be good medicine, but it sure is good business" was another. The delegates didn't need to be told how dramatically things had changed. Today surgery is the mainstay of treatment and, in Australia, 95 per cent of men diagnosed with prostate cancer are alive five years later.

Costello, professor of urology at The Royal Melbourne Hospital, says the extraordinary advances of the past 30 years are not dissimilar to those made with bacterial infectious disease after penicillin, or viral disease after the advent of vaccination. In spite of every endeavour, for most of the last century it was not possible to diagnose prostate cancer early.

### Late diagnosis

Diagnosis was made late in the course of the disease, with 40 per cent of patients presenting only after it had spread to the bones. "Back then, surgery and radiation therapy required a courageous patient to tolerate the massive

surgical blood loss from radical prostatectomy or severe radiation side effects from cobalt radiation therapy machines," Costello recalls. "Death from bony metastatic prostate cancer was, and still is, a very unpleasant and painful demise."

The first bit of therapeutic hope appeared halfway through the last century. Although it called for a treatment so primitive it made men gasp, it did have value. Charles Huggins, a Nobel Prize-winning Canadian urologist, discovered that testosterone feeds prostate cancer. As a result, from 1950 until 2004, castration became the gold standard for men with advanced disease. Before 1980, the scrotum was sliced open and both testes were removed. Those who couldn't face it could opt for medical castration, which meant taking high doses of the female hormone oestrogen and enduring its challenging side effects.

Although castration became more sophisticated, it worked only for a limited time. When he was a registrar, Costello says, it was not uncommon for men to present in emergency with acute paraplegia from lumbar crush fracture from bone metastasis. It meant the man had a life expectancy of six to nine months. Even in his initial years of urology, a radical prostatectomy was "not for the faint-hearted". Every man who made it through was left with erectile dysfunction and more than 50 per cent were left incontinent. The operation often entailed the loss of five litres of blood and required a 21-day hospital stay. It was a grim event.

Then, in the mid-80s there was a breakthrough. Professor Patrick Walsh from Johns Hopkins in Baltimore, US, devised a safe form of *radical prostatectomy* that caused much less harm. He described the anatomy and location of the neurovascular bundle which surgeons had previously cut through, destroying erectile nerves. Then Walsh found a technique for managing a

major vein, thus preventing massive blood loss during the operation.

In the early 1990s, there came another breakthrough that would have a profound effect on the management of the disease. It was a blood test which allowed a nine-year lead time from diagnosis to advanced disease. The now-famous *PSA* test measured the level of a protein in the blood called prostate specific antigen.

It was not accurate but it was the best tool available. If men could be diagnosed early, before the cancer had escaped the gland, they could be cured. This test changed the pattern of presentation and the timing of diagnosis. Before it, men would see their doctor with urinary obstruction, bone pain, anaemia and other symptoms of advanced prostate cancer. Now they were being tested before any symptoms emerged, in case a silent cancer was lurking in their prostate. It allowed urologists to perform safer surgery with minimal blood loss, a low likelihood of incontinence, and the potential to spare erectile nerves in some men.

Today, however, it is frankly acknowledged that there was an over enthusiasm for PSA testing, which led to a 400 per cent rise in radical prostate surgery. As a result, many men were over-treated. This is a slow-growing cancer and the men may well have died with their cancer rather than from it, and been saved some distressing side effects. PSA and the rush to surgery transformed urologists from little-known specialists to rock stars in the eyes of their patients. It also led to much greater awareness of the disease. Men who never knew where their prostate was, or what it did in the body, were finding out and talking about it.

One of Australia's leading prostate cancer pathologists, Professor Ronnie Cohen, of the University of Western Australia, saw the startling

consequences of PSA on his laboratory bench. When he began looking at prostate cancer in 1990, most of it came from middle-aged men with enlarged prostates who needed a re-bore to ease the flow of urine. The removed tissue was routinely sent for pathology and Cohen says at least half of those with cancer already had metastatic disease and went on to the mainstay treatment of hormone or radiation therapy.

"Today, we rarely see metastatic disease. We see early disease and surgery is the mainstay of treatment - I think you can attribute that to PSA." PSA use is now more sophisticated and the rush to surgery has been tempered by a standardised form of vigilance. Men who have early cancer and don't want surgery or radiation can keep a close eye on their cancer through a program known as "*active surveillance*". This allows them to enjoy normal function until their metrics indicate their risk is getting high and they should have treatment. The snag is that some might miss the conversion point, after which their cancer ceases to be curable.

Professor Henry Woo began practising as an urologist in 1994, just as PSA testing was coming on line in Australia. He experienced the boom in surgery and says that, although urologists appeared to be "harvesting prostates", they were acting in good faith. "They believed they were doing the right thing," says Woo, now Director of Uro-Oncology at Sydney's Chris O'Brien Lifehouse. One of the biggest advances in his career has been the recognition that not all prostate cancer is clinically significant and that it is appropriate and safe to treat some men conservatively. Woo estimates 25 to 30 per cent of men who had surgery during the rush could have been managed conservatively.

Besides PSA, the 1990s saw another major development - minimally invasive, *keyhole surgery* for prostate cancer. Beyond 1995,

rather than opening a man up, the prostate could be removed laparoscopically. Not all surgeons used this technology, which was about to get much better. In 2003, the first **keyhole robotic prostate operation** was performed in Australia. Costello was at the controls for the first patient at Melbourne's Epworth Hospital. The technologically superior robotics quickly superseded the laparoscopic version. A convert to robotics, Costello describes it as miraculous. "Radical prostatectomy is now a day-stay in hospital with an almost zero transfusion rate, 95 per cent continence and a 40 to 50 per cent chance of recovery of potency." There are, however, highly regarded urologists who have long experience with open surgery and continue with it because their results are comparable to the robot.

This century has seen many other improvements in areas such as imaging and radiation. As the prostate sits deep in the pelvis, hidden behind other structures, it had always been difficult to get a good view of it. Now **ultrasound, CT, MRI** and **PET scans** are being used. **Radiation** has become far more refined and targeted. Rather than firing external beams towards the prostate, causing scatter and damaging surrounding structures, external radiation is sculpted to the shape of the prostate. And men have the option of internal radiation. Temporary rods can deliver high doses directly into the prostate while tiny implanted radioactive seeds can deliver small doses locally.

Over the past 30 years, there has always been controversy somewhere in the management of prostate cancer. Today, there are still several debates. One is about **focal therapy** and whether there is value in removing the main cancer in the gland and leaving the rest. Some say there is, others say it's a waste of time.

Another hot issue is whether there is value in

taking out the prostate if the cancer has already spread. Some say by taking out the engine that drives spread, everything is slowed. Others say once this cancer has escaped, it's crazy to put a man through a prostatectomy and further diminish his quality of life.

It's in extending the lifespan of men with advanced cancer that the most exciting developments are taking place. In 2004 **chemotherapy** was found to provide a survival advantage when chemical castration failed. A decade later, Dr Chris Sweeney (originally from Adelaide and now an associate professor at Harvard Medical School) showed combining chemotherapy and hormone therapy further increased survival.

Now survival is being pushed out even more. After men develop resistance to castration and/or chemotherapy, some of them benefit from two novel anti-androgen therapies (**abiraterone** and **enzalutamide**) that have different mechanisms to castration.

And there is more on the horizon. Costello's group has hypothesized a new concept to treat men with early metastatic disease. Those with only a few metastasis can have "spot welding" during which these "mets" or spots are targeted with special radiation or surgically removed, thus avoiding the necessity for immediate hormone therapy.

And most recently, complex nuclear medicine is being unleashed against prostate cancer. First came a PET scan that used the radio pharmaceutical **Gallium-PSMA** (prostate specific membrane antigen) to light up metastatic disease. Then it was combined with radioactive emitter **lutetium** which goes directly to the metastatic site and delivers a lethal radiation dose to prostate cancer cells with little or no collateral tissue damage. This nuclear therapy is called

**Theranostics** because it combines diagnosis and therapy. While it's experimental and only being used for advanced disease, there's a flicker of hope it may one day be used early in the cancer journey as a curative agent.

The recent US Cancer Moonshot initiative (to identify new ways to identify, diagnose and treat cancer) may herald immune therapeutics, which have worked so well in melanoma. While this is unlikely to cure prostate cancer, Costello says it may help to lengthen longevity for men at the end of the road. "Our aim is to induce a state of prolonged cancer remission with occasional targeted therapeutic intervention."

<http://www.afr.com/lifestyle/health/mens-health/prostate-cancer-how-treatment-has-improved-over-30-years-20161031-gseyza#ixzz4VLkp8iKE>

## MRI vs TRUS BIOPSY IN

### DIAGNOSIS of PROSTATE CANCER

- **MP-MRI:** Multi-parametric magnetic resonance imaging scan
- **PSA:** serum prostate specific antigen
- **TPM-Biopsy:** Transperineal (between rectum and penis) Magnetic Resonance Imaging-targeted Biopsy
- **TRUS-Biopsy:** Transrectal (through rectum) Ultrasound-Guided Prostate Biopsy

The diagnosis of prostate cancer differs from that in other solid organ cancers where imaging is used to identify those patients who require a biopsy. The default diagnostic tool is a TRUS-biopsy that can cause side-effects including bleeding, pain, and infection. AMP-MRI used as a diagnostic test would allow men to avoid an unnecessary TRUS-

biopsy and improve diagnostic accuracy.

MP-MRI, used as a diagnostic test before first prostate biopsy, could reduce unnecessary biopsies by a quarter. An MP-MRI can also reduce over-diagnosis of clinically insignificant prostate cancer and improve detection of clinically significant cancer.

In the current practice, many men without cancer undergo unnecessary biopsies, clinically insignificant cancers are often detected and clinically significant cancers are sometimes missed.

In conclusion, TRUS-biopsy performs poorly as a diagnostic test for clinically significant prostate cancer. MP-MRI, used as a triage test before first prostate biopsy, could identify a quarter of men who might safely avoid an unnecessary biopsy and would improve the detection of clinically significant cancer.

[http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(16\)32401-1/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(16)32401-1/fulltext)

*Harvard Medical School - The Lancet, 16 Feb '17*

**Diagnostic Accuracy of Multi-Parametric MRI and TRUS Biopsy In Prostate Cancer (PROMIS): A Paired Validating Confirmatory Study**

## 2017 SUBSCRIPTIONS \$10

The 2017 annual subscriptions are due from 1<sup>st</sup> January 2017. The rate is **\$10 per individual, couple or family**. The subscriptions are payable to the Treasurer or directly into our bank account- **"Prostate Heidelberg Community Group Acct"**  
BSB 083 256 Account 5832 44292  
If paying directly into the Bank, please use your name as the reference.

**DISCLAIMER:** Information in this newsletter is not intended to take the place of medical advice. You should obtain advice from your doctor relevant to your specific situation before acting or relying on anything in this newsletter. We have no liability whatsoever to you in connection with this newsletter.

## UPDATE OF CONTACT DETAILS AND MAILING LIST

We are updating our records. To ensure that you continue to receive your Newsletters and the details of the year's program at Prostate Heidelberg, please complete the details below and either email to [prostateheidelberg@gmail.com](mailto:prostateheidelberg@gmail.com), or mail to: **Prostate Heidelberg, PO Box 241, Ivanhoe, Vic. 3079**

Contact Details	
Title, First Name	
Surname	
Partner Name	
Street Address	
Email	
Phone Number	
Mobile Phone	

## MEETING MARCH 2017

The **NEXT MEETING**: **10:00 am to 12.30 pm, Wednesday 8th March 2017.**

Prostate Heidelberg's **MEETING VENUE** is the Ivanhoe Uniting Church Meeting Room, Seddon Street Ivanhoe (Melways 31 F8) - behind the Commonwealth Bank in Upper Heidelberg Rd. Car parking off Waterdale Rd behind the Ivanhoe Hotel.

*Prostate Heidelberg provides information, education and support for those affected by prostate cancer.*

*At the meetings, we:-*

- *Show respect to members and speakers;*
- *Allow people to speak and we listen;*
- *Respect confidentiality;*
- *Allow new ideas to be shared.*

We meet on the 2nd Wednesday of each month (except January) from 10:00am -12:30pm at the Uniting Church Meeting Room, Seddon St, Ivanhoe (behind the Commonwealth Bank in Upper Heidelberg Rd). Free parking is available in a large public parking area at rear of the church. Ivanhoe railway station and various bus routes are nearby. Meetings are open to anyone interested in getting support or information on a prostate cancer journey. Partners or carers are welcome to all meetings. After the meeting you are welcome to join us for lunch in a local restaurant.

There is no charge for attending. But we ask for **\$10 annual subscription** per individual, couple or family due from 1st January 2017 to contribute toward meeting costs.

If you can't attend daytime meetings, the Diamond Valley Prostate Cancer Support Group has evening meetings: <http://www.dvpcsg.org.au/>

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**COMMITTEE**

Max Shub, Facilitator 0413 777 342  
Paul Hobson, Secretary  
Chris Ellis, Convenor, Welcoming  
Spiros Haldas, Library, Welcoming  
Janis Kinne, Membership  
Barry Elderfield, Treasurer  
Patrick Woodlock, Newsletter 0438 380 131

**CORRESPONDENCE**

Prostate Heidelberg,  
PO Box 241 IVANHOE VIC 3079  
[ProstateHeidelberg@gmail.com](mailto:ProstateHeidelberg@gmail.com)  
[www.ProstateHeidelberg.info](http://www.ProstateHeidelberg.info)

*Please contact attention, Patrick Woodlock, to redirect or cancel receipt of this Newsletter.*

**CALENDAR** Meetings: 10:00am -12:30pm

Wed 8 March 2017  
Wed 12 April 2017  
Wed 10 May 2017  
Wed 14 June 2017  
Wed 12 July 2017  
Wed 9 August 2017  
Wed 13 September 2017  
Wed 11 October 2017  
Wed 8 November 2017  
Wed 13 December 2017 (Christmas lunch)  
Wed 14 February 2018

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