



Male reproductive health – what is the GP's role?

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BACKGROUND Male reproductive health issues cause considerable morbidity, as well as mortality, in our community. Although 'women's health' has been a separate and important subject of medical interest for many years, it is only recently that the study of male health, andrology, has gained impetus as an area of research and clinical importance.

OBJECTIVE This article outlines the current issues and recent advances in men's reproductive health.

DISCUSSION Despite publicity in the popular press about erectile dysfunction it remains an under treated, treatable condition, with close association with increased cardiovascular risk. The advent of intracytoplasmic sperm injection has significantly improved the management of male infertility. Testicular cancer now has an excellent prognosis and, while screening for prostate cancer remains a controversial area, prostate cancer mortality appears to be declining. As general practitioners we need to keep abreast of developments in male reproductive health, know how to sensitively question our male patients about their concerns and to deal effectively with the answers we receive.

It is only at the beginning of the 21st century that we doctors, having learnt about women's health as a separate and important subject for nearly a century, have come to realise that the field of male sexual and reproductive health is as important in its scope as gynaecology.

Today, topics such as male infertility, prostate and testicular cancers, prostate hyperplasia, erectile dysfunction and male hormone disorders are responsible for a considerable degree of morbidity as well as mortality in our communities. In the past, however, perhaps because men stiffened their upper lips and bore their problems with stoicism, these ailments were not treated with the same degree of respect as were gynaecological disorders. In fact it is only recently that the subject of male health has even been distinguished with a proper name: andrology.

With the amount of publicity given in the popular press these days to male reproductive disorders, the community expects its general practitioners to be au fait with the latest andrologi-

cal information, and also to be confident and comfortable in dealing with patients who suffer from disorders of the male reproductive organs.

Truly, the spectrum of male health has changed and GPs practising in the 21st century will of necessity have to be aware of recent advances in order to be able to deal with patients' concerns. So what's the latest in male reproductive health – and where does the GP fit in?

Erectile dysfunction

Since the recent advent of oral treatments for erectile dysfunction (ED), there has been a greater willingness among patients to discuss this issue with their doctors. Unfortunately, there is still a dearth of information on the subject; not only in the community but also among doctors. What exactly is it, how common is it, what role do relationship issues play in a man's inability to get and maintain an erection?

Whereas in the past it was believed that in the majority of cases of ED the cause was 'in the man's

head', we now know that organic abnormalities account for the vast majority, with vascular dysfunction being the most common cause.¹ We have moved from an era dominated by psychotherapy and penile prostheses to one where effective oral medications and vacuum devices are available. This is an area of medicine that is likely to provide an increasing workload for doctors in years to come. Erectile dysfunction truly represents one of the most under treated treatable medical disorders in this country.

The spin off of all this is that we GPs will need to improve our ability to explore sexuality issues with our patients. We need on the one hand to be able to take an appropriate sexual history in patients presenting with nonsexual problems, and on the other to recognise the need for a full medical history in patients presenting with ED, which could well be due to an underlying disease.

In fact, one of the most important messages GPs need to convey to the community is that men with ED need to seek medical advice because of its close association with cardiovascular risk factors. Moreover, it would be of interest to ascertain whether improving cardiovascular risk factor profile in older men would concurrently reduce the prevalence of sexual dysfunction.²

Male infertility

Another field in which we can now do something where in the past little could be done, is that of male infertility. It is currently estimated that one in 20 couples in Australia is naturally infertile, and in about half of the couples who seek assisted reproduction the cause lies with the man.³

Those of us devoting ourselves to family practice are not always aware⁴ of the efficacy of new procedures such as intracytoplasmic sperm injection (ICSI) which have opened up opportunities for previously infertile couples to use their own gametes for conception.

Intracytoplasmic sperm injection is based on the fact that any single viable sperm from anywhere in the male genital tract can be injected into an ovum to induce pregnancy. Sperm retrieval can be done under local anaesthesia, either by percutaneous aspiration from the epididymis or fine needle aspiration of the testis. Today, ICSI forms nearly 60% of IVF procedures in Victoria with pregnancy rates similar to other IVF technologies.⁵ This allows couples who may have been reluctant

to rely on sperm from outsiders (donor insemination) to now take advantage of in-vitro fertilisation (IVF). With the limited success of vasectomy reversal (about 40% even in the best surgical hands) and the growing success rate of ICSI, one could predict that in the not too distant future the operation will be superseded by IVF using sperm from the man's own testicles. Moreover, freezing and storing sperm is not overly expensive today, and can be organised via an IVF service before undergoing a vasectomy. With IVF today having such a high degree of efficacy, sperm storage may even obviate the need for ICSI. Therefore, GPs should ensure that men contemplating vasectomy receive appropriate pre-operative counselling.

Prostate disease

General practitioners have an important role to play in the management of prostate disease which is the most prevalent male sexual disease in the community, and also the one causing the most morbidity and mortality.

Benign prostatic hypertrophy

In years gone by, anyone with prostatism and a palpably enlarged prostate gland was a candidate for prostatectomy; however, we now know that lower urinary tract symptoms are not necessarily due to bladder outlet obstruction. More careful assessment of a man's symptoms and more precise investigation of his prostate gland with ultrasonography and voiding studies may be necessary before deciding to subject him to surgery. The mere presence of an enlarged prostate is no justification for its removal; the criterion today is the degree of bother the man's symptoms are causing him.⁶

One consequence of our aging population is a greater prevalence of benign prostatic hypertrophy that has resulted in several safe and effective pharmacological agents appearing on the scene. Although transurethral resection of the enlarged gland remains the treatment of choice when the gland is obstructing the bladder outlet, medical therapy has now become a practical treatment option for a condition that in the past was only amenable to 'the knife'.

Prostate cancer

The incidence of prostate cancer – the second commonest cause of cancer mortality in men after skin

cancer – which has the potential to progress through an unpleasant and protracted course to death continues to increase, but the mortality due to this condition remains stable.

The past decade has seen a dramatic change in the way prostate cancer presents to us. The introduction in the late 80s of prostate specific antigen (PSA) testing as an adjunct to digital rectal examination (DRE) as a screening test has resulted in a greater detection of clinically localised disease. Evidence from around the world has shown that the number of men having metastases at the time of diagnosis has fallen dramatically,⁷ and more men now undergo radical rather than palliative therapy. With this has come an increased expectation of cure.

Today, it is mandatory to tailor therapy for prostate cancer to the individual⁸ and this is where the GP with intimate knowledge of his patient becomes an important member of the management team.

Newer surgical techniques plus more efficacious delivery of radiotherapy have given significantly improved outcomes and decreased side effects. With the increase in the number of men with prostate cancer living in the community, the task of providing long term support, monitoring progress and managing side effects, will of necessity fall to the GP.

As to whether routine PSA testing is justified is still controversial. Until more studies such as that of Frydenberg et al⁹ are available, the current consensus is that doctors should only proceed with PSA testing of their patients if they are convinced that making the diagnosis will benefit the patient. In pragmatic terms this equates to testing patients who have a life expectancy of more than 10 years.

In Australia today it is estimated that there are over 65 000 men now living with prostate cancer. Add to this the 10 000 or so men newly diagnosed each year, and it becomes evident that prostate cancer poses a very significant health problem for the communities – one in which GPs will have an important role in management.

Testicular cancer

Over the past 25 years, testicular cancer has changed from a disease that was fatal in the majority of those affected to one where the outlook can truly be described as excellent – with a five year survival of 95%. An excellent role model for those diagnosed with testicular cancer is the American, Lance Armstrong¹⁰ who in 2002 went on to win the

gruelling Tour de France cycling marathon for the fourth time after undergoing surgery, radiotherapy and chemotherapy for this very condition.¹⁰

This is the commonest form of cancer in men aged between 15–44 years, and as its presentation is usually to the GP, it is important that risk factors are identified to heighten awareness. For the clinician, it is important to be aware that there is a significant link between infertility and cancer of the testis. Other factors that have been shown to be associated with an increased risk of testicular cancer are undescended testes and infantile hernia. These result in, respectively, a four-fold and two-fold increase in cancer of the testis, as noted in a large case control study.¹¹ Interestingly, these authors noted that the increased risk of testicular cancer disappeared if orchidopexy was performed before 10 years of age.¹¹

In almost all patients who are detected early and treated appropriately, the condition today is curable – so we need to be aware of the importance of early diagnosis and referral to specialists with access to the use of ancillary modalities in special facilities. Given the curability of testicular cancer today, patients should be counselled about the facility of sperm storage before undergoing radiotherapy and chemotherapy so they can consider IVF should they desire to father children.

Conclusion

Twenty-five years ago, who would have thought that oral medications would be used to treat impotence, that babies would be conceived using sperm aspirated from the testis, or that a man with testicular cancer could be treated with radiotherapy and chemotherapy and recover to such a degree of health that he would compete and win the Tour de France?

As GPs we have to be sensitive to the issues of male reproductive health. We need to understand not only the physiological issues but also the emotional issues, and we must continue to keep abreast of recent developments in order to retain the skills and knowledge required to efficaciously manage these problems. In simple terms, we have to know what questions to ask our male patients, how to sensitively phrase these questions, and how to deal effectively with the answers we receive.

SUMMARY OF IMPORTANT POINTS

- Erectile dysfunction is one of today's most untreated treatable medical disorders, and is closely associated with cardiovascular risk factors.
- Sperm storage and intracytoplasmic sperm injections offer more hope for infertile couples.
- PSA screening of asymptomatic men remains controversial.
- Therapy for prostate cancer needs to be tailored to the individual, but there have been considerable advances in radical surgical and radiotherapeutic options.
- Testicular cancer is an eminently curable cancer if detected early.

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