

Acceptance Speech of
PROFESSOR PATRICK CRAIG WALSH
CoC Winner of the 2007
King Faisal International Prize for Medicine

Monday 16 April 2007 (28.3.1428H)

Your Royal Highness, Prince Sultan Ibn Abd Al Aziz
Crown Prince, Deputy Premier,

Minister of Defense and Aviation and Inspector General
Your Highnesses
Your Excellencies
Distinguished Guests

It is with the deep sense of gratitude and humility that I stand before you today to accept the King Faisal International Prize in Medicine for 2007. I accept this award on behalf of every man who has ever developed prostate cancer, who has died of it, or who will live long enough to suffer from it. My dedication in life has been to reduce death and suffering from this disease around the world.

Globally, prostate cancer has become the third most common cancer in men with half a million new cases each year, representing 10% of all cancers in men. In the United States as recently as 1980 only 7% of men with localized prostate cancer accepted treatment with surgery because of major side effects: life threatening bleeding was common, and following surgery all men were impotent, and 25% suffered severe incontinence. In an effort to understand the cause of these side effects with the hope of preventing them, I embarked upon anatomic studies and quickly realized that the side effects resulted from an imperfect understanding of the anatomy surrounding the prostate. Based upon these observations I learned that it was possible to prevent them. By delineating the veins surrounding the prostate it became possible to reduce blood loss, improve exposure, and do a better cancer operation. Discovery of the nerves responsible for erectile function in men made it possible to preserve sexual function. And delineation of the soft tissues surrounding the sphincters improved both cancer control and urinary continence.

Soon these anatomical observations were applied to a surgical technique that is now used world-wide in open, laparoscopic, and robotic procedures. Suddenly the operation became safer and the thirty day mortality following radical prostatectomy fell ten-fold (from 2% to 0.2%). As a consequence, by the mid 1990s one-third of men with localized prostate cancer in the United States were treated with surgery. Experienced surgeons report that serious problems with urinary control have been reduced to 2%, and potency can be preserved in 60-90% of men who are less than 65 years of age who had normal sexual function preoperatively. However, the technique is complex, has a steep learning curve, and in many parts of the world advanced radiation therapy is not available as an option for treatment. For this reason, I created a two hour DVD that provides a detailed description of the surgical technique and distributed it free to 50,000 urologists world-wide.

The major impact, however, of these discoveries has been on reducing death from prostate cancer. The Scandinavian Prostatic Cancer Group performed a randomized trial comparing radical

prostatectomy using this anatomic approach to watchful waiting. They found that within eight years, surgery reduced progression to distant metastases, death from prostate cancer, and significantly improved overall survival. I believe that these findings are relevant to the 25% decline in prostate cancer deaths that has occurred in the United States over the last decade.

In addition to a direct impact on reducing deaths from prostate cancer, the wide-spread application of radical prostatectomy has had a powerful indirect effect by facilitating research in the field. Previously, when few men underwent surgery, there was little or no tissue for pathologic evaluation or biochemical molecular investigations. However, today tissue harvested from surgical specimens has provided an invaluable resource facilitating both clinical and basic research in the field.

I am grateful to the King Faisal Foundation for recognizing my contributions. They have not only made it possible to save lives, but also provided new avenues for scientists to discover innovative ways to treat and hopefully prevent the disease. I hope to continue working in the field long enough to see the happy day when prostate cancer is no longer one of the most common cancers in men. It is with deep gratitude that I accept this award.