recent prostate cancer diagnosis. He was 75 years old, tall and slim, in overall good health, but had just had received a diagnosis of a Gleason score 7 (3+4) prostate carcinoma on his transurethral resection prostate chips. The tumour had been found incidentally during the transurethral resection of the prostate (TURP), as part of procedures to deal with outflow obstruction, bladder stones and unilateral hydronephrosis. Pre-op total PSA was 6.47.

Before retiring in Malta, this patient had been a senior civil servant in London and had also a longstanding interest in integrative medicine. He asked me to review his histological slides, particularly with a view to gauge whether there was any chance he could avoid the radiotherapy and hormone treatment that had been recommended.

I reviewed the histology and noted that a quarter to a third of the chips were occupied by a uniform very well differentiated prostatic adenocarcinoma most resembling the so-called "foamy gland" type; no other morphological pattern was present. In the pre-Gleason era this tumour would have been given a grade 1, out of a maximum of 3. With the Gleason system his TURP material would be scored (1+1) 2. The Gleason system does not permit scores of less than 6 on needle biopsies because of the high probability of non-sampled higher grade tumour. It is also possible that TURP material does not include more aggressive peripherally situated tumour.

I discussed my findings with the patient, namely that his pathology suggested an indolent progression which might ideally be suited to "watchful waiting" / active surveillance". There was evidence this do-nothing approach for such a low grade tumour offered no less survival longevity than radical prostatectomy or radiotherapy.¹ Professor Dean Ornish, integrative cardiologist, urologist Dr Peter Carroll (both of California) and the late Dr Peter Fair (urologist, Memorial Sloan-Kettering Cancer Center, New York) had shown in a randomised controlled trial that their lifestyle medicine programme (more plant and less animalderived food, regular exercise and stress management) may slow, stop or even reverse the progression of early-stage, low grade prostate cancer, without drugs or surgery.²

Other researchers³ found that men diagnosed with prostate cancer who ate a diet high in red and processed meat, high-fat dairy and refined grains had a higher risk of both prostate cancer-related mortality and overall mortality compared with those who ate a whole-foods plant-based diet. They examined health and diet data from almost 1,000 men participating in the Physicians' Health Study who were diagnosed with prostate

cancer and followed them up for an average of 14 years. Men who ate mostly a Western diet had a 250% higher risk of prostate cancer-related death, and a 67% increased risk of death from any cause. In contrast, men who ate mostly a whole-foods plant-based diet had a 36% lower risk of death from all causes.³

The patient discussed my lower scoring of the tumour and my suggested active surveillance approach with his urologist who agreed that this was a possible approach but warned that the patient would have to accept full responsibility for that decision. This patient decided to follow Dean Ornish's integrative medicine approach, combined with active surveillance, and to avoid radiotherapy or any pharmacological intervention. It requires a disciplined personality, particularly to modify one's diet, which this patient did have.

For what it is worth, he also followed my advice to take daily fish oil and other food supplements which, besides multivitamins (including vitamin D3), contain lycopene and saw palmetto which may dampen the effect of oestrone and dihydrotestosterone on prostate cells, and also Reishi mushroom extract which might improve anti-tumour immunity. Ten years later, his total PSA never exceeded 2.42, his June 2019 level was 1.38, and he is a reasonably fit 85-year old on no pharmaceutical drugs. Had he submitted himself to radiotherapy, this 10-year success story would have been falsely attributed to that treatment.

This successful outcome also depended on the second opinion's lower grading of the tumour. The Gleason system is claimed to have improved treatment decisions, but interpreting and applying it is far from straight forward. In fact, there tends to be good grading agreement between urological pathologists but less consensus among general pathologists. This case illustrates the problem of possible tumour grading disagreement and the consequences for management choices. Furthermore, one wonders whether this might be the only Maltese case of a 10-year documented active surveillance follow-up for prostate cancer.

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