The surveillance of patients is a dentist’s duty

An interview with Prof. Newell Johnson, Australia

FDI. Are we in danger of losing the battle against the disease? Prof. Newell Johnson: There are some good news. In countries that have long had the reputation of having very high rates of oral cancer, such as parts of France, India and Sri Lanka, the rates of alcohol and tobacco-related oral cancer are indeed falling. The same is true of the US, much of Western Europe, and Australia. Here rates are falling from a lower base. In those countries or populations with traditionally very high rates, however, hundreds of thousands still die of oral cancer every year. In parts of Eastern Europe and the former Soviet republics, rates of those cancers are rising, we think, because of still high tobacco use, abuse of alcohol and a poor diet.

The other piece of bad news is that the incidence of cancers of the oropharynx (as opposed to the lip and in the mouth itself) is also increasing worldwide.

HPV has been identified as a growing risk factor for oral cancer. What in the mouth itself. These are the same viruses that we know cause cancers of the uterine cervix, penis and anus. It is generally thought that sexual transmission is involved. The evidence is largely circumstantial; that is, these cancers are more likely among younger adults, and there are associations with the number of sexual partners. Fortunately—if that is an appropriate word—these cancers are more sensitive to radiotherapy, and the survival rates/treatment outcomes are better than for most other head and neck cancers.

For the past decade, there have been extensive immunisation programmes against a few of these papillomaviruses delivered to girls in many countries. These are intended to prevent cancer of the uterine cervix in later life. It will be very interesting to observe, in another 20 years or so, whether this has had an impact on upper aero-digestive tract cancers too. Fortunately, we are beginning to see boys now included in the immunisation programmes in some countries.

Some forms of oral cancer have a patient survival rate of only 50 per cent. What makes it so difficult to achieve a more successful therapeutic outcome?

The average survival at five years after diagnosis of oral cancer has hovered around 40 to 50 per cent for decades in most countries. In the high-volume specialised treatment centres, patients are indeed doing better, in terms of long-term survival and quality of life/misminisation of disability and side-effects. The major reasons that we are not doing even better is because so many cases are diagnosed and treated too late, and/or patients have severe co-morbidities such as diseases of the cardiovascular system or cancers at other sites.

Some are discouraged because the prevalence of potentially malignant disorders, and sexual) for all their clients. Healthy diets and good hygiene (oral and pharmaceutical) can be called “opportunistic screening”. There is none as important as with breast cancer, for example. There is a large component of acquired genetic abnormality, which is being gradually unravelled. So genetic testing is of increasing importance, perhaps for susceptibility, more so for early changes in the tissue during carcinogenesis, the latter perhaps detectable in saliva or blood too.

On the other hand, the prevalence of potentially malignant disorders, and certainly of overt oral cancer, is low in many countries, so maintaining a high level of awareness and interest among general practitioners is difficult. Some are discouraged because cancer screening may not be a remunerative activity.

In South Asia, and emigrant communities therefrom, potentially malignant oral disorders are common...

“For cancers, and for potentially malignant disorders, in the mouth itself, direct visual inspection and palpation, followed by referral or biopsy, is the best approach. Adjunctive screening tests have not been demonstrated to have utility beyond this and commercialisation can be counterproductive.”

“You have already mentioned genetic. What role will it play in the evaluation of oral cancer in the future? Well, cancer is, of course, a genetic disease. There is a small component of inherited genetic susceptibility, but nothing as important as with breast cancer, for example. There is a large component of acquired genetic abnormality, which is being gradually unravelled. So genetic testing is of increasing importance, perhaps for susceptibility, more so for early changes in the tissue during carcinogenesis, the latter perhaps detectable in saliva or blood too.”

However, every cancer is a unique biological event in an unique individual. Detecting the spectrum of genetic abnormalities in the individual, and targeting these with particular designer drugs, or gene therapy or immunotherapy is exciting: we are in the era of personalised medicine.

Extensive surgery, radiotherapy and chemotherapy have not brought the improved outcomes we so desperately need. For the afflicted, the future will be individualised biotherapies. For the world, the future must be primary prevention.

Thank you very much for this interview.