

Dental care of cancer patients Before, during and after treatment

In the first of a two-part feature, dental hygienist JOCELYN HARDING looks at the sort of therapies and medicines those with cancer are likely to be offered, and how these can effect their oral health ...

ACCORDING to Cancer Research UK there were 352,197 new cases of cancer diagnosed in 2013. So the question arises, how can we, as health professionals, best look after and advise these patients before, during and after treatment? Our mouths are the window to the body and it is important we treat the body holistically, not solely the area of cancer that is affected.

The difference between chemotherapy and radiotherapy

Chemotherapy

*Chemotherapy uses anti-cancer (cytotoxic) drugs to destroy cancer cells. The drugs also affect healthy cells, causing side effects such as feeling sick or an increased risk of infection. Unlike cancer cells these cells usually repair themselves. Most side effects improve when treatment is finished.

It is sometimes combined with radiotherapy (chemoradiation).
Macmillan.org.uk

Radiotherapy

*Radiotherapy uses high-energy rays to treat disease. It can be given both externally and internally.

- External radiotherapy aims high-energy x-rays at the affected area using a large machine.
- Internal radiotherapy involves having radioactive material placed inside the body.

Radiotherapy works by destroying cancer cells in the area that's being treated. Normal cells can also be damaged by radiotherapy, which may cause side effects. Cancer cells cannot repair themselves after radiotherapy, but normal cells usually can.

If it's not possible to cure the cancer, palliative radiotherapy may help to relieve symptoms. The type of radiotherapy you're given will depend on the type of cancer and the individual situation." - Macmillan.org.uk

How do we prepare patients before treatment starts?

The priority is to help the patient to reach the end of their treatment with as little damage to the oral cavity as possible. It is important at this early stage of diagnosis that we consider our patient's thoughts and feelings. We must also understand that some patients may be reluctant to take advice as they may be psychologically affected and overwired. The risks of the side-effect of treatments need to be explained to patients, and although not all of these can be avoided, they can be minimised by following advice that can be given by the dental team. The added complication is the individual reactivity of each patient to the chemicals and therapies must be taken into account.



1. Xerostomia. Dry mouth affects mastication, speech and swallowing. Saliva contains enzymes lipase and amylase for balancing the mouth and breakdown of lipids.
 2. Infection. Oral mucositis is caused by the imbalance of the mouth allowing candida albicans to proliferate due to the weakened patient's immunity.
 3. Burning, swelling or peeling of the tongue. This may be more common in patients who have been treated for a head and/or neck cancer. A nasty side effect as nerve endings can be damaged through treatment. Burning mouth can be a long term issue for the patient to manage. Hot and spicy foods will need to be avoided.
 4. Change of taste. This may also be more common in patients who have been treated for a head and/or neck cancer. Due to destruction of the patient's taste buds this may or may not be a long term effect of treatment.
 5. Decay. There is a high risk of caries with these patients especially root caries. These surfaces are tricky to treat in a routine patient so for this category of patients we must take extra care and use as many preventative measures as possible.
- Dental options before start of treatment
Dental professionals have a real

opportunity to help patients with a 'belt and braces' approach. There are many products to recommend and prescribe. Promoting a good controlled diet is the ideal. However, the priority for many patients is the consumption of any nutrients, without considering the damaging effects of sugar. This especially applies to patients being treated for oral cancer. Extractions of vulnerable teeth should be completed before radiotherapy as extractions after treatment may result in bone necrosis, especially after oral radiotherapy.

Two weeks before treatment patients should reduce their oral bacterial load. Patients have a choice of mouthwashes containing the active ingredient chlorhexidine gluconate. For effectiveness, patients should check which toothpaste to use, whether SLS free or not, and also check how soon after brushing these mouthwashes may be used.

Patients should be warned of the damaging effects of high calorie drinks which may be recommended to them due to their lack of appetite. Rapid consumption is advised because these drinks are high in sugar and decay will be caused if drunk over long periods of time. Patients can mainly drink water, sugar free drinks, or suck ice chips. If patients

wish to have other drinks encourage them to be sugar free and to alternate with water as far as possible. Some patients may be recommended pineapple, fresh or tinned, as it contains the enzyme bromelain that helps to break down proteins and can also help with a metallic taste some patients complain of after chemotherapy, but these may also cause caries and erosion.

In the next article, to run in July's Probe, we will consider the advantages of a selection of currently available products to alleviate some of the common symptoms

About the author

Jocelyn qualified as a dental hygienist at RADC Aldershot in 1992 whilst serving in the Royal Navy and worked in Gibraltar, Hong Kong and Hawaii. Jocelyn has been part of the award-winning team at Confident Dental Care and Implants Centre in Stroud for 9 years. For further information about this article please contact joss@confident-dental-care.co.uk

