



Trial results:

Relief for head and neck cancer patients with mouth exercises

Background

Around 6,800 patients were diagnosed with cancer of the mouth in the UK in 2011. Standard treatment varies but may involve surgery, chemotherapy and radiotherapy.

This is the first study of its kind to show that exercises can help and that it is safe to do the exercises before and whilst on radiotherapy treatment and to continue the exercises after radiotherapy treatment has finished.

Patients can develop a reduction in mouth opening called trismus from their disease or as a result of treatment. Trismus affects the jaw muscles and makes mouth opening difficult. This can result in problems with eating, swallowing, speaking, oral health, dental integrity, nutrition and can affect breathing. Radiotherapy would be expected to worsen trismus. To potentially combat trismus, patients could undertake jaw stretching exercises before the mouth opening starts to get worse. This means starting exercises **before** radiotherapy.

Trial design

The aim of this study was to examine whether prophylactic jaw exercises using the Therabite[®] (TB) (a hand operated device which fits inside a patient's mouth) or wooden spatulas (WS) (lollipop sticks stacked in a patient's mouth) will relieve or prevent tightening of the jaw following radiotherapy. All patients had some sense of jaw tightening prior to study entry. Measurements of jaw opening were taken before and after radiotherapy.

The study was designed to look at factors such as compliance with the daily exercise regime. Quality of life and health economics were questions the feasibility study was designed to address.

37 patients were randomised to receive the Therabite device and 34 the wooden spatulas for jaw exercises.



Findings

The study has shown that mouth openings had increased on average in both groups following the exercise intervention. There was no significant difference between the wooden spatulas or the Therabite. They both helped with improved mouth opening although the wooden spatulas are cheaper.

Conclusions

Prophylactic exercises during and after radiotherapy treatment can improve mouth opening in many mouth cancers.

The recommended exercise regime is stretching five times, with 30 seconds hold, three times a day. If you are interested in doing the exercises you should speak to your clinical team and be shown how to do the exercises safely. For more information call **0161 446 8046**.

Lessons learned

From speaking to patients over the telephone, the following comments were noted:

- allow patients to have more of a say in the exercise regime, e.g. reduce to three times a day
- allow patients to take a variable break (up to five weeks) from the exercises when side effects of radiotherapy are at their worst, then start exercises again to help further to improve or maintain mouth opening
- patients would benefit from more regular contact with their medical team for encouragement and support

References:

R. Lee¹, S.N. Rogers², A.L. Caress³, A. Molassiotis⁴, R. Edwards⁵, D. Ryder¹, P. Sanghera⁶, C. Lunt¹, T. Yeo⁵, N. Slevin⁷¹The Christie, Research and Development, Manchester, United Kingdom. ² University Hospital Aintree, Maxillofacial Unit Directorate, Liverpool, United Kingdom. ³ University of Manchester, School of Nursing and Midwifery, Manchester, United Kingdom. ⁴ The Hong Kong Polytechnic University, Cancer & Supportive Care, Hong Kong, China. ⁵ Bangor University, The Bangor Health Economics Unit, Bangor, United Kingdom. ⁶ University of Birmingham, Clinical Oncology, Birmingham, United Kingdom. ⁷ The Christie, Clinical Oncology, Manchester, United Kingdom.

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