PEPTEST

Case study from a consultant ENT head and neck surgeon

Peptest is the first non-invasive test that helps to diagnose reflux-related conditions. While current diagnostic pathways rely on time-consuming, invasive and costly imaging techniques to detect reflux, Peptest – a simple lateral flow test that measures pepsin in saliva samples – is now providing faster, non-invasive results at a fraction of the cost of traditional options.

Mr Taran Tatla
Consultant ENT head and neck surgeon and Honorary Secretary of ENT-UK

Mr Taran Tatla, a consultant ENT head and neck surgeon at Northwick Park and St Mark's Hospital, London, has a special interest in laryngopharyngeal reflux (LPR) and uses Peptest early to help diagnose the condition in cancer patients undergoing rehabilitation after surgery or therapy, such as chemoradiation. He is also conducting research and is involved in trials looking at the significance of reflux as an under-recognised underlying risk factor for the development of certain tumours, as well as the potential role of Peptest for better triaging of patients in primary care who present with worrying (but non-specific) throat symptoms.

Reflux in cancer care

"My interest in reflux is primarily related to my cancer patients, specifically those who have been successfully treated for head and neck cancers, but who may still suffer from LPR. The question of whether the reflux disease was present before the development of cancer, or whether it is a sequelae of treatment – e.g. radiation or surgery causing swallow, voice and breathing difficulties – is an important question that is often hard to answer, and undoubtedly needs further investigation. Most cases of head and neck cancer are related to smoking and drinking – there is a demonstrable association from epidemiological studies – but circumstantial evidence suggests that a significant proportion also have reflux as an underlying risk factor for their cancer. While there are currently only limited epidemiological studies that support this, this is largely because most people who smoke and drink also have reflux, and separating these elements is very difficult.

Stratifying patients

Whatever the root cause, reflux can result in significant morbidity, in some cases hampering recovery, and it represents a considerable drain on rehabilitation resources in head and neck cancer patients. This in itself is an area of interest for research; risk factors that affect the development of cancer also appear to determine the way patients recover from various treatments, and how much rehabilitation they need. Patients respond very differently, throwing up questions about their genetic make-up, their immunology, the way that they heal, and other factors like reflux. Because of this, I now stratify patients before and after their treatment on the basis of their original risk factors, and reflux

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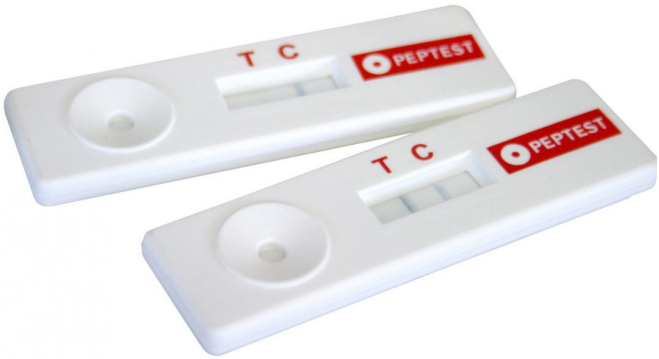
is one aspect of this. If patients still have reflux as a significant underlying problem after treatment and it has not been addressed, did this contribute to the origin of their cancer, and are they still potentially at risk from redeveloping the same, or a similar cancer, for example, of the oesophagus? I believe that a clearer understanding of these links and easier testing for reflux could lead to better screening and surveillance programmes for monitoring tumour recurrence.

A solution to current testing challenges

Research efforts looking at these associations have undoubtedly been hampered by our limitations in measuring and recording reflux. There are several time-consuming, costly and invasive investigations and imaging tools, but also a growing acceptance by specialists that many of these do not necessarily correlate well to a clinical picture over time. There can be significant discrepancies in performance between camera systems in endoscopies, differences in procedures between hospitals, and even inter- and intra-operator reliability issues because of subjective image interpretation. As a result, a negative result from a previous endoscopy investigation does not automatically exclude the possibility of LPR being a causal factor in a patient's symptoms. In contrast, Peptest offers the potential for an accurate, painless and inexpensive test that clearly detects the presence and level of pepsin in upper airway secretions, indicating reflux disease. This was confirmed in a recent trial undertaken by my department and four other centres across the UK, showing that pepsin is an excellent biomarker for detecting airway reflux and LPR, with an overall sensitivity of 76.4 % for Peptest.[1]

Triaging patients in primary care

The next question to be answered is whether there is a role for this non-invasive, quick and cheap test in primary care. Many individuals referred to ENT clinics with a sore throat, persistent cough, vocal problems and swallowing issues enter the system on an urgent care pathway, to exclude or conclude cancer. Fortunately, a cancer diagnosis is relatively rare in these cases, amounting to fewer than 5 % of patients. However, this is a huge burden for hospitals; waiting lists have rocketed up to give priority to the two-week services, and approximately 40 % of these patients have symptoms that will relate back to refluxate. A simple test that could identify these patients in the primary care setting could save on time, money and, of course, worry for the patients themselves. Further research and pilot projects are already underway to collect more evidence for the use of Peptest under different clinical circumstances."



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1. Dettmar P, Watson M, McGlashan J, Tatla T, Nicholaides A, Bottomley K, *et al*. A Multicentre Study in UK Voice Clinics Evaluating the Noninvasive Reflux Diagnostic Peptest in LPR Patients. *SN Comprehensive Clinical Medicine*. 2019; 2: 57-65

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