

66% of diagnostic biopsies for common skin cancer can be avoided using Michelson Diagnostics' VivoSight OCT laser scanner

Maidstone, UK

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A major study published in leading cancer journal, *The Lancet Oncology*¹ have ground-breaking findings on Michelson Diagnostics, the UK based medical device company that use multi-beam Optical Coherence Tomography ('OCT') technology, which can transform patient's treatment and care of basal cell carcinomas (BCC). It was concluded that OCT-guided diagnosis, when compared to a standard punch biopsy could reduce the number of consultations and invasive procedures by a massive 66%.

Approximately 75% of skin cancers diagnosed in the UK are basal cell carcinomas². It is the most common form of skin cancer that is rapidly increasing, with it affecting one in five people in the white population in their lifetime³. Annually, there are at least 150,000 cases in the UK and the number is growing, due to an aging population and sun exposure trends, creating a major burden on the NHS.

OCT is an advanced laser scanning tool which enables clinicians to non-invasively view below the surface of the skin at much higher resolutions than is possible with other technologies such as MRI or X-ray. Michelson Diagnostics' VivoSight machine is already the world's leading scanner for the skin and has revolutionised how dermatologists conduct their treatment plans. It is an innovative, radical, and exciting improvement for the healthcare service.

This new study, led by Professor Klara Mosterd and her research group at the University of Maastricht, used a large, randomised, controlled trial of 598 patients where the OCT scanner was pitched against the standard punch biopsy. Treatment decisions were made on the basis of diagnosis and treatment processes were then compared after 12 months, evaluating the rate of cancer recurrence and costs.

The results were powerful as it was discovered that *“in 66% of patients, a biopsy could be avoided, thus minimising treatment delay and avoiding an invasive procedure.”* The OCT diagnosis, therefore, was proved to be just as worthy as the standard punch biopsy, with the added value of preventing wounds and scarring on patients.

Punch biopsy treatment is also often significantly delayed. The OCT diagnosis and treatment plan allows for immediate (same day) treatment. This makes it extremely cost-effective as biopsy, histopathology and separate consultations are not needed.

Jon Holmes, CEO of Michelson Diagnostics Ltd, commented *“This thorough, large, randomised clinical trial by an independent and internationally respected dermatology research group provides powerful evidence supporting the use of our revolutionary VivoSight OCT scanner in routine skin cancer care for basal cell carcinoma diagnosis. The study showed that almost two-thirds of patients could with OCT avoid the pain and inconvenience of biopsy, and nearly half then treated with non-surgical methods to avoid cutting and scarring procedures altogether.”*

He added: *“The study also showed that using OCT is more cost effective than biopsy, because an immediate diagnosis from an OCT scan enables same-day treatment, saving the need for further costly patient visits and eliminating lengthy delays to treatment. Reducing the huge burden of skin biopsies will also help over-pressed hospital histopathology services, which may help reduce backlogs for biopsy analysis in skin and other cancers.”*

The study has proved that using the OCT can dramatically improve patient’s physical care and treatment time. It is a safe and effective tool that can be used in the diagnosis and treatment of BCCs as well as allowing dermatologists, hospitals, and clinics to dramatically improve healthcare.

¹ Adan F. et al. , Optical coherence tomography versus punch biopsy for diagnosis of basal cell carcinoma: a multicentre, randomised, non-inferiority trial. The Lancet Oncology. 2022 Jul 11. [https://doi.org/10.1016/S1470-2045\(22\)00347-3](https://doi.org/10.1016/S1470-2045(22)00347-3)

² Cancer Research UK 2019

³ Kwiatkowska M et al. An updated report on the incidence and epidemiological trends of keratinocyte cancers in the United Kingdom 2013–2018. Skin Health and Disease. 2021 Dec;1(4):e61.

For further information

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Notes to editors

About Michelson Diagnostics and the VivoSight OCT System

Michelson Diagnostics has developed a world-leading, patented, medical imaging technology, known as multi-beam Optical Coherence Tomography ('OCT'), that uses an advanced laser scanner to 'see' into tissue with unprecedented image resolution and quality of image.

VivoSight has regulatory clearance in Europe, USA and Australia, for use by trained clinicians in their assessment of the patient's medical condition.

The company, based in Maidstone, Kent, was founded in 2006. It has sales offices in Germany and USA. For more information about Michael Diagnostics, see www.vivosight.com.



Professor Klara Mosterd, University of Maastricht, scans a patient with VivoSight OCT