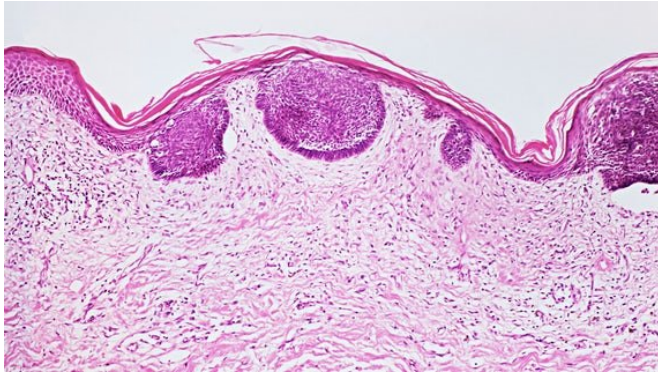


# Link between HPV and cancer after kidney transplant

30 May 2018



Credit: Cardiff University

The European Cancer Stem Cell Research Institute at Cardiff University has shed light on the link between skin cancer development and kidney transplants, highlighting the importance for clinicians to monitor transplant patients for these virus-induced cancers.

In patients who lack the protection of their immune system, viruses like HPV can spread and cause cancer unchecked. This means that those receiving a kidney transplant, who receive drugs to suppress their immune system as part of their treatment, are left open to cancer-causing viruses like HPV.

Keratinocyte carcinoma, a type of skin cancer, is the most common cancer that occurs in [kidney transplant patients](#) and is associated with a form of the HPV virus called  $\beta$ -HPV.

Dr. Girish Patel, at the European Cancer Stem Cell Research Institute, said: "Our work has investigated the mechanisms involved in keratinocyte carcinoma development in patients who have received a kidney transplant.

"In our research, we used normal skin and tumours removed from patients who have received a kidney transplant. Using antibodies, we were able to establish that if the  $\beta$ -HPV virus was present in skin, when combined with other risk factors like exposure to UV light and immunosuppression, this skin would have a high risk of developing keratinocyte carcinoma.

"Not only this, our research also demonstrates, for the first time, the molecular mechanisms that enable the HPV virus to cause the development of multiple skin cancers in kidney transplant patients.

"This study has not only taken a step forward in understanding how viruses can cause the development and spread of cancer, but also highlights the need for clinicians to monitor patients for HPV induced skin cancers after receiving a [kidney transplant](#), as they have increased risk of developing cancer in the future."

Provided by Cardiff University

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