Medical Xpress

Researchers find immunotherapy treatments better for advanced skin cancer

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McMaster University researchers have found that for patients diagnosed in the late stages of one of the most common and deadly forms of skin cancer, treatment with a combination of immunotherapy options improves survival and lowers the risk of life-threatening events.

"This is the first analysis to draw comparison between targeted and immune therapies for BRAF-mutated melanomas," said Feng Xie, an associate professor in the Department of Clinical Epidemiology and Biostatistics at McMaster's Michael G. DeGroote School of Medicine. "Our results will help patients and clinicians choose treatments."

Feng Xie is a principal investigator of the study, recently published in *JAMA Oncology*.

Cutaneous melanoma is an aggressive and deadly form of skin cancer. According to the Canadian Cancer Society, the disease accounts for 3.3 per cent of new cancer cases each year in Canada, and it has a 15 per cent death rate.

In its early stages, melanoma is often cured with surgery alone, however most patients who are diagnosed in the late stages of disease are not candidates for surgery and drug therapy is the main course of treatment.

Tahira Devji, the first author of the paper and a PhD student of McMaster's Health Research Methodology Program, said that around 40 to 60 per cent of melanomas have a mutation in the BRAF protein.

A number of effective treatment options are available for patients with advanced BRAF-mutated melanoma, which fall under two classes of drug therapies: targeted therapy, like chemotherapy, which stops cancer from growing and spreading; and immunotherapy, which works by stimulating the immune system to attack tumour cells. It has been unclear which is the optimal initial treatment.

The goal of the study was to estimate the relative efficacy and safety of systemic therapies for those who have been diagnosed with advanced BRAF-mutated melanoma but not yet received any treatment.

The team evaluated 15 randomized controlled trials published between 2011 and 2015, assessing the benefits and harms of targeted or immune checkpoint inhibitors in 6,662 patients with cancer that had spread to the lymph nodes and surgery was not an option, or distant metastatic melanoma.

They found that combined BRAF and MEK targeted therapy and PD-1 immunotherapy were both equally effective in improving overall survival. Combined BRAF and MEK inhibition was most effective in improving progression-free survival. PD-1 inhibition was associated with the lowest risk of life-threatening events.

They concluded that the safety of PD-1 inhibitors supports using this treatment option as first-line therapy in circumstances where quick action is not a priority.

"While the data in our study represents best available evidence, using more than one kind of immunotherapy shows promise in early outcomes in clinical trials and could change the treatment landscape once longer-term results are published," said Feng Xie.