Medical Xpress

Melanoma detection

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Melanoma. Credit: Wikimedia Commons/National Cancer Institute

Melanoma is a type of skin cancer, it is the most lethal of the various forms of this disease. It can be cured but only if detected early enough in its progress. Now, writing in the *International Journal of Advanced Intelligence Paradigms*, a research team from India has developed a new way to analyse skin lesions that may or may not be melanoma and so allow a more reliable diagnosis to be developed.

The World Health Organisation (WHO) says that one third of all cancer cases are skin cancers and there are currently more than 135,000 new melanoma cases diagnosed annually. The five-year survival rate for patients with melanoma diagnosed and treated early is 98%, whereas the survival rate is 62% for cases of melanoma that have spread beyond the local tissues. Survival for cases where the cancer has spread to other tissues and bone well away from the primary tumour site is a mere 16% survival rate after five years.

Vikash Yadav and Vandana Dixit Kaushik of Harcourt Butler Technical University, Kanpur explain that the diagnosis of skin cancer is difficult using conventional methods but that modern image processing and analysis could improve the outlook significantly. Their approach looks at asymmetries in high-level features of skin lesions and then combining the data with low-level features to create a computer algorithm that can accurately classify a skin lesion as being melanoma or not. The features that emerge as indicative are asymmetries, border irregularities, and colour differences within the same lesion that mark out a common mole or other skin blemish from a melanoma.

More information: Vikash Yadav et al. Detection of melanoma skin disease by extracting high level features for skin lesions, *International Journal of Advanced Intelligence Paradigms* (2018). DOI: 10.1504/IJAIP.2018.095493

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