



Dr Chris Jalilian uses the dermoscope to distinguish melanomas from other aggressive skin cancers.

Research Activities

As a large treatment service for melanoma, primary research interests are in identifying at-risk patients, early detection and therapy. The key focus in recent years has been to explore the importance of aggressive, rapidly growing melanoma. Recent work has shown that these melanomas account for only 13% of melanomas but half of melanoma deaths. Their rapid growth means that there is a relatively brief opportunity to undertake early, curative treatment and yet they are most often misdiagnosed because of their unusual appearances.

An exciting opportunity to explore the genetic and molecular associations of rapidly growing melanoma has arisen through the Melbourne Melanoma Project (MMP), a Victorian Cancer Agency funded collaboration between the Victorian Melanoma Service (VMS), Peter Mac and the Austin. Through MMP, melanomas will be tissue banked for genetic and molecular studies. PhD student, Dr Victoria Mar, gained an NHMRC grant for this work in 2010.

Dr Chris Jalilian has been investigating the dermoscopic appearances of rapidly growing melanoma and other aggressive tumours that have similar appearances. The aim of his work is to use this new and widely available method of examination to aid the early diagnosis of these tumours and to distinguish them from benign imitators. He used this approach to describe for the first time the dermoscopic appearances of Merkel cell carcinoma, an aggressive skin cancer that mimics nodular melanoma. Chris was awarded a Small Project Grant from The Alfred for this work in 2010.

Dr Yan Pan has extended a study of the prognosis associated with the presentation of metastasis of melanoma to the skin and has been able to distinguish three groups of patients with widely differing prognoses in association with their skin metastases. He has also identified and described a newly recognised presentation of melanoma in a study of nine cases of regrowth following excision of a previously benign pigmented lesion.

The use of sequential dermoscopic images taken at short (three month) or long (six month) intervals is a new and exciting method for the early detection of melanoma. Dr Hussain Hilmy has reviewed three years of experience from VMS staff members in the use of sequential dermoscopic imaging to provide a better understanding of the role of this technique. His review shows that it is very useful for detecting melanomas in the highest risk groups.

There are a number of techniques for surveillance of patients who are at risk for the development of melanoma to enhance early detection. The most effective application of these techniques depends on the accurate identification of people who are most at risk. Previous research has provided data on the influence of a number of important risk factors; however, it is very hard for doctors to accurately compute the mathematical impact of multiple risk factors simultaneously to assess the risk for an individual patient.

Dr Victoria Mar has developed a risk model using currently available risk data. In 2010, this was made available as an online instrument that doctors and patients can use to predict risk to develop melanoma in the next 5 years. It is presented on the VMS website. This has enabled more appropriate allocation of individuals to surveillance strategies for the early detection of future melanomas. Presentations to dermatologists and general practitioners in 2010 have led to heavy traffic on the website, demonstrating strong uptake of the model.



Dr Victoria Mar developed the melanoma risk calculator, which was launched on the Victorian Melanoma Service website in 2010.



Publications
6 Journal Articles