



Pathology Report: Malignant melanoma in situ

The Pathology Report series is written for your patients, to help them better understand the pathologist's report.

Melanoma is a form of skin cancer that can be lethal but can also be cured if caught very early. Malignant melanoma in situ (MMIS) is the earliest form of malignant melanoma. It is called in situ because it has not penetrated beneath the outermost layer of the skin, known as the epidermis. If the melanoma cells extend into the next layer, known as the dermis, it is called malignant melanoma (MM). Once the cells grow downward into the dermis, the cancer will come into contact with lymph and blood vessels. The thicker the melanoma, the greater likelihood that it could spread through these vessels to distant sites; this process is called metastasis. Removal of the lesion before it enters the deep layers of the skin is crucial for achieving a cure.

People who regularly check moles on their skin may have a lower risk of developing advanced melanoma. Any suspicious lesion should be examined by a physician. A mnemonic device, ABCD, is used to describe several features that help distinguish melanomas from non-cancerous growths: *A*symmetry, *B*order Irregularity, *C*olor Variation and *D*iameter. MMIS and MM generally grow in an irregular, asymmetric fashion, have indistinct borders, contain various colors within the lesion and have a diameter of 6 mm (about the size of a pencil eraser) or larger.

The greatest risk factor for melanoma is intense exposure to sunlight and ultraviolet radiation. People with light skin, blue, gray or green eyes, red or blonde hair and lots of freckles are at a higher risk for developing melanoma. The risk increases for those who are easily sunburned and is especially high for those who experienced severe sunburns during childhood. Patients who have a family history of melanoma are also considered to be at an increased risk.

If melanoma is detected as MMIS, the 5-year survival rate is 95%. On the other hand if the cancer is more advanced, survival drops below 60%. Therefore it is not only important to prevent development of melanoma through the use of sunscreen and protective clothing, but to catch these growths early. Patients are advised to check their entire body every month, and those with risk factors should see a physician once a year for a full-body skin screening.