

## **Metastatic Workup**

A metastatic workup is best for detecting local and regional spread, especially to lymph nodes. Early detection of positive nodes may have an impact on overall survival. In contrast, there is no proven survival benefit in detecting distant metastases early as there are still no effective therapies available.

- History and physical: focused to elicit signs and symptoms of commonly involved organ systems, including the lungs, nervous system, liver, and GI tract.
- Routine imaging and blood studies have a low sensitivity and specificity in detecting metastatic disease.
- Sentinel lymph node biopsy: good initial staging test. This is usually performed if the primary lesion is  $> 1\text{mm}$  or  $< 1\text{mm}$  with other high-risk characteristics, such as ulceration. Results of the biopsy will determine whether a detailed workup to pursue distant disease is needed.

Current guidelines suggest no workup for primary lesions  $< 1\text{mm}$ . For larger lesions, a chest x-ray, LDH level and sentinel lymph node biopsy are often recommended, but not mandatory. In cases of positive nodal involvement, a more thorough workup is done to look for distant metastases. Some of the available tests are listed below. In addition, the tests listed may be used in patients with suspicious signs and symptoms.

- chest x-ray
- LDH level, liver function test
- head, chest, abdomen, pelvis CT
- brain MRI
- PET scan
- bone scan

## **References:**

Chang AE, Johnson TM, Gira AK. Greenfield's Surgery: Scientific Principles and Practice [Internet]. 4<sup>th</sup> ed. Mulholland MW, Lillemoe KD, Doherty GM, Maier RV, Upchurch GR, editors. Philadelphia: Lippincott Williams & Wilkins; 2006. Chapter 118, Cutaneous Neoplasms; [cited 2009 May 31]; p. 2134-51. Available from: <http://ovidsp.tx.ovid.com.ezproxy.med.nyu.edu/>

Habif TP. Clinical Dermatology: A Color Guide to Diagnosis and Therapy [Internet]. 4<sup>th</sup> ed. Edinburgh: Mosby, Inc.; 2004. Chapter 22, Nevi and Malignant Melanoma; [cited 2009 May 31]; [about 69 p.]. Available from: <http://www.mdconsult.com.ezproxy.med.nyu.edu/das/book/body/140730728-2/0/1195/0.html>

Lange JR, Fecher LA, Sharfman WH, Alani RM, Mikkilineni, Topalian SL, Balch CM. *Abeloff's Clinical Oncology* [Internet]. 4<sup>th</sup> ed. Abeloff MD, Armitage JO, Niederhuber JE, Kastan MB, McKenna WG. Philadelphia: Churchill Livingstone; 2008. Chapter 73, Melanoma; [cited 2009 May 31]; [about 31 p.]. Available from: [http://www.mdconsult.com.ezproxy.med.nyu.edu/das/book/body/140730728-4/0/1709/0.html?NEW\\_EDITION=true](http://www.mdconsult.com.ezproxy.med.nyu.edu/das/book/body/140730728-4/0/1709/0.html?NEW_EDITION=true)

National Comprehensive Cancer Network. NCCN Clinical Practice Guidelines in Oncology Melanoma [Internet]. Version 2.2009. [place unknown]: National Comprehensive Cancer Network, Inc.; 2009 [cited 2009 May 31]. 41p. Available from: [http://www.nccn.org/professionals/physician\\_gls/PDF/melanoma.pdf](http://www.nccn.org/professionals/physician_gls/PDF/melanoma.pdf)