

CHAPTER 31

MALIGNANT MELANOMA (C43.9)

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REMEMBER

- Malignant melanoma (MM) is an aggressive tumor of pigment-producing cells known as melanocytes.
- Although MM is the rarest type of skin cancer compared to others, it is the most fatal type. Mortality rates were found to be higher in males compared to females.
- MM usually develops in the skin, but primary melanomas may rarely occur in any melanin-containing cellular tissue (e.g., bladder). The disease is called extracutaneous malignant melanoma.
- Mucosal primary melanomas may arise from the esophagus, bladder, biliary, vaginal, urethral, and anorectal regions. Primary meningeal, and adrenal melanomas are more infrequent. It should also be noted that metastatic MM may be present in all these regions mentioned above.
- Men are 1.5 times more likely to develop melanoma than women. Melanoma is the fifth most common cancer in men, and the sixth most common in women.
- In middle-aged patients, regardless of gender, the risk of MM increases in the presence of a history of frequent intermittent sun exposure and sunburn from childhood.
- Individuals with fair skin, light eyes and hair (red hair at higher risk) have a higher risk of MM.

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Plastic and Reconstructive Surgery

- The evaluation of tumor thickness, surgical margins for biopsy, and appropriate closure techniques for clinical management of clinically localized primary cutaneous melanoma, including width of excision margins and appropriateness of sentinel lymph node biopsy should be evaluated with plastic and reconstructive surgeons.
- Sentinel lymph node biopsy (SNLB) should be performed in all melanomas of T2 and above.
- Radical surgery varies according to the area of involvement of the disease. For example, in vular melanoma, gynecologists and obstetricians perform this surgery. However, radical surgery and lymph node dissection should be performed by plastic surgeons, especially in extremity and truncus involvement.

Medical Genetics

- Oncogenic mutations such as BRAF, NRAS, MAPK and CKIT have been described in malignant melanoma. In addition, GNAQ/GNA11 mutations have been detected in uveal melanoma.
- Additional biopsies, molecular genetic testing (ie for a BRAF mutation), imaging, and lactate dehydrogenase (LDH) should be considered to complete staging as appropriate and for treatment planning.

REFERENCES

- Scolyer RA, Long G V, Thompson JF. Evolving concepts in melanoma classification and their relevance to multidisciplinary melanoma patient care. *Mol Oncol*. 2011;5(2):124-136. doi:10.1016/j.molonc.2011.03.002
- Harries M, Malvehy J, Lebbe C, et al. Treatment patterns of advanced malignant melanoma (stage III-IV) - A review of current standards in Europe. *Eur J Cancer*. 2016;60(April):179-189. doi:10.1016/j.ejca.2016.01.011
- Joosse A, De Vries E, Eckel R, et al. Gender differences in melanoma survival: Female patients have a decreased risk of metastasis. *J Invest Dermatol*. 2011;131(3):719-726. doi:10.1038/jid.2010.354

- Bittar PG, Bittar JM, Etzkorn JR, et al. Systematic review and meta-analysis of local recurrence rates of head and neck cutaneous melanomas after wide local excision, Mohs micrographic surgery, or staged excision. *J Am Acad Dermatol*. 2021;85(3):681-692. doi:10.1016/j.jaad.2021.04.090
- Tawbi HA, Schadendorf D, Lipson EJ, et al. Relatlimab and Nivolumab versus Nivolumab in Untreated Advanced Melanoma. *N Engl J Med*. 2022;386(1):24-34. doi:10.1056/NEJMoa2109970
- Curti BD, Faries MB. Recent Advances in the Treatment of Melanoma. *N Engl J Med*. 2021;384(23):2229-2240. doi:10.1056/NEJMra2034861
- Welch HG, Mazer BL, Adamson AS. The Rapid Rise in Cutaneous Melanoma Diagnoses. *N Engl J Med*. 2021;384(1):72-79. doi:10.1056/NEJMsb2019760
- Tracy ET, Aldrink JH. Pediatric melanoma. *Semin Pediatr Surg*. 2016;25(5):290-298. doi:10.1053/j.sempedsurg.2016.09.010
- Pavri SN, Clune J, Ariyan S, Narayan D. Malignant melanoma: Beyond the basics. *Plast Reconstr Surg*. 2016;138(2):330e-340e.
- Dzwierzynski WW. Melanoma Risk Factors and Prevention. *Clin Plast Surg [Internet]*. 2021;48(4):543-50. Available from: <https://doi.org/10.1016/j.cps.2021.05.001>
- Kibbi N, Kluger H, Choi JN. Melanoma: Clinical presentations. *Cancer Treat Res*. 2016;167:107-29.
- Hartman RI, Lin JY. Cutaneous Melanoma—A Review in Detection, Staging, and Management. *Hematol Oncol Clin North Am [Internet]*. 2019;33(1):25-38. Available from: <https://doi.org/10.1016/j.hoc.2018.09.005>
- Ralli M, Botticelli A, Visconti IC, Angeletti D, Fiore M, Marchetti P, et al. Immunotherapy in the Treatment of Metastatic Melanoma: Current Knowledge and Future Directions. *J Immunol Res*. 2020;2020.
- Wada-Ohno M, Ito T, Furue M. Adjuvant Therapy for Melanoma. *Curr Treat Options Oncol*. 2019;20(8).
- Gorayski P, Burmeister B, Foote M. Radiotherapy for cutaneous melanoma: Current and future applications. *Futur Oncol*. 2015;11(3):525-34.
- Jager MJ, Shields CL, Cebulla CM, Abdel-Rahman MH, Grossniklaus HE, Stern MH, et al. Uveal melanoma. *Nat Rev Dis Prim [Internet]*. 2020;6(1):18-20. Available from: <http://dx.doi.org/10.1038/s41572-020-0158-0>
- Abbas O, Miller DD, Bhawan J. Cutaneous malignant melanoma: Update on diagnostic and prognostic biomarkers. *Am J Dermatopathol*. 2014;36(5):363-79.
- Chattopadhyay C, Kim DW, Gombos DS, Oba J, Qin Y, Williams MD, et al. Uveal melanoma: From diagnosis to treatment and the science in between. *Cancer*. 2016;122(15):2299-312.
- Francesco Barillaro, Marco Camilli, Paolo Dessanti, Nadir Gorji, Fabio Chiesa, Alessandro Villa, Alessandro Pastorino, Carlo Aschele EC. Primary melanoma of the bladder: Case report and review of the literature. *Arch Ital Urol Androl*. 2018;90(3):224-6.
- Wong VK, Lubner MG, Menias CO, Mellnick VM, Kennedy TA, Bhalla S, et al. Clinical and imaging features of noncutaneous melanoma. *Am J Roentgenol*. 2017;208(5):943-59.

BÖLÜM 32

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HATIRLA

- Malign melanom (MM), melanositler olarak bilinen pigment üreten hücrelerin agresif bir tümöründür.
- Diğer deri kanserlerine göre en nadir tip olasa da aralarında en ölümcül deri kanseridir. Erkeklerde ölüm oranları kadınlara göre daha yüksek saptanmıştır.
- MM genellikle deride gelişir ancak primer melanomlar melanin içeren hücreli herhangi bir dokuda (ör: mesane) nadiren ortaya çıkabilir. Ekstrakutanöz malign melanom olarak adlandırılır.
- Mukozal primer melanomlar, özofagus, mesane, biliyer, vajinal, uretral ve anorektal bölgelerden kaynaklanabilir. Primer meningeal ve adrenal melanomlar çok daha nadirdir. Tüm bu bölgelerde metastatik MM olabileceği de unutulmamalıdır.
- Erkeklerde melanom gelişme olasılığı kadınlara göre 1,5 kat daha fazladır. Melanom erkeklerde en sık görülen beşinci, kadınlarda ise en sık görülen altıncı kanserdir.
- Orta yaşlı hastalarda, cinsiyetten bağımsız olarak, çocukluktan itibaren sıklıkla intermittan güneş maruziyet ve güneş yanığı öyküsü varlığında MM riski artar.
- Açık tenli, açık renk gözlü ve saçlı (kızıl saç daha yüksek risk) bireylerde MM riski daha yüksektir.
- Melanomun en sık yerleşim yerleri kadın ve erkekler cinsiyette farklılık göstermektedir. Erkeklerde en çok sırt gibi gövde lokalizasyonları tutulurken, kadınlarda en çok alt ekstremiteler tutulur.

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- Radikal cerrahi hastalığın tutulum alan özelliğine göre değişmektedir. Örneğin vulvar melanomda kadın hastalıkları ve doğum uzmanları bu cerrahiyi gerçekleştirir. Ancak özellikle ekstremite ve trunkus tutulumlarında radikal cerrahi ve lenf nodu diseksiyonu uzman plastik cerrahlar tarafından gerçekleştirilmelidir.

Tıbbi Genetik

- Malign melanomda BRAF, NRAS, MAPK ve CKIT gibi onkojenik mutasyonlar tanımlanmıştır. Ayrıca üveal melanomda GNAQ/GNA11 mutasyonları saptanmıştır.
- Uygun şekilde tedavi planlaması için evrelemeyi tamamlamak için ek biyopsiler, moleküler genetik testler (yani bir BRAF mutasyonu için), görüntüleme ve laktat dehidrogenaz (LDH) bakılmalıdır.

KAYNAKLAR

- Scolyer RA, Long G V., Thompson JF. Evolving concepts in melanoma classification and their relevance to multidisciplinary melanoma patient care. *Mol Oncol*. 2011;5(2):124-136. doi:10.1016/j.molonc.2011.03.002
- Harries M, Malvehy J, Lebbe C, et al. Treatment patterns of advanced malignant melanoma (stage III-IV) - A review of current standards in Europe. *Eur J Cancer*. 2016;60(April):179-189. doi:10.1016/j.ejca.2016.01.011
- Josse A, De Vries E, Eckel R, et al. Gender differences in melanoma survival: Female patients have a decreased risk of metastasis. *J Invest Dermatol*. 2011;131(3):719-726. doi:10.1038/jid.2010.354
- Bittar PG, Bittar JM, Etzkorn JR, et al. Systematic review and meta-analysis of local recurrence rates of head and neck cutaneous melanomas after wide local excision, Mohs micrographic surgery, or staged excision. *J Am Acad Dermatol*. 2021;85(3):681-692. doi:10.1016/j.jaad.2021.04.090
- Tawbi HA, Schadendorf D, Lipson EJ, et al. Relatlimab and Nivolumab versus Nivolumab in Untreated Advanced Melanoma. *N Engl J Med*. 2022;386(1):24-34. doi:10.1056/NEJMoa2109970
- Curti BD, Faries MB. Recent Advances in the Treatment of Melanoma. *N Engl J Med*. 2021;384(23):2229-2240. doi:10.1056/NEJMra2034861
- Welch HG, Mazer BL, Adamson AS. The Rapid Rise in Cutaneous Melanoma Diagnoses. *N Engl J Med*. 2021;384(1):72-79. doi:10.1056/NEJMsb2019760
- Tracy ET, Aldrink JH. Pediatric melanoma. *Semin Pediatr Surg*. 2016;25(5):290-298. doi:10.1053/j.sempedsurg.2016.09.010
- Pavri SN, Clune J, Ariyan S, Narayan D. Malignant melanoma: Beyond the basics. *Plast Reconstr Surg*. 2016;138(2):330e-340e.
- Dzwierzynski WW. Melanoma Risk Factors and Prevention. *Clin Plast Surg* [Internet]. 2021;48(4):543-50. Available from: <https://doi.org/10.1016/j.cps.2021.05.001>
- Kibbi N, Kluger H, Choi JN. Melanoma: Clinical presentations. *Cancer Treat Res*. 2016;167:107-29.
- Hartman RI, Lin JY. Cutaneous Melanoma—A Review in Detection, Staging, and Management. *Hematol Oncol Clin North Am* [Internet]. 2019;33(1):25-38. Available from: <https://doi.org/10.1016/j.hoc.2018.09.005>
- Ralli M, Botticelli A, Visconti IC, Angeletti D, Fiore M, Marchetti P, et al. Immunotherapy in the Treatment of Metastatic Melanoma: Current Knowledge and Future Directions. *J Immunol Res*. 2020;2020.
- Wada-Ohno M, Ito T, Furue M. Adjuvant Therapy for Melanoma. *Curr Treat Options Oncol*. 2019;20(8).
- Gorayski P, Burmeister B, Foote M. Radiotherapy for cutaneous melanoma: Current and future applications. *Futur Oncol*. 2015;11(3):525-34.
- Jager MJ, Shields CL, Cebulla CM, Abdel-Rahman MH, Grossniklaus HE, Stern MH, et al. Uveal melanoma. *Nat Rev Dis Prim* [Internet]. 2020;6(1):18-20. Available from: <http://dx.doi.org/10.1038/s41572-020-0158-0>
- Abbas O, Miller DD, Bhawan J. Cutaneous malignant melanoma: Update on diagnostic and prognostic biomarkers. *Am J Dermatopathol*. 2014;36(5):363-79.
- Chattopadhyay C, Kim DW, Gombos DS, Oba J, Qin Y, Williams MD, et al. Uveal melanoma: From diagnosis to treatment and the science in between. *Cancer*. 2016;122(15):2299-312.
- Francesco Barillaro, Marco Camilli, Paolo Dessanti, Nader Gorji, Fabio Chiesa, Alessandro Villa, Alessandro Pastorino, Carlo Aschele EC. Primary melanoma of the bladder: Case report and review of the literature. *Arch Ital Urol Androl*. 2018;90(3):224-6.
- Wong VK, Lubner MG, Menias CO, Mellnick VM, Kennedy TA, Bhalla S, et al. Clinical and imaging features of noncutaneous melanoma. *Am J Roentgenol*. 2017;208(5):943-59.