

MALIGNANT MELANOMA OF THE SKIN

A Preliminary Report *

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Introduction

Malignant melanoma is relatively rare and is one of the most, if not the most, vicious of all malignant diseases. It is, however, curable in a remarkably high percentage of cases if treated properly. Although the term "properly" varies from author to author, as generally accepted the treatment of choice for malignant melanoma is the wide deep excision of the primary lesion plus regional lymph node dissection, regardless of whether or not the lymph nodes are palpable.¹⁻¹³ On the other hand, some authors do not agree with this concept of treatment.¹⁴ They confine regional lymph node dissection to those cases in which the field of primary excision overlies a nodal basin or to those in which metastatic involvement of the lymph nodes is discovered or suspected. Some other authors even feel that neither regional lymph node dissection nor wide excision can make any difference in the end results of surgical treatment of malignant melanoma.¹⁵

Material

In the last four years, the author has had the opportunity to see and to plan the treatment of 16 cases of malignant melanoma. Five of these were seen and treated in a general surgical department of the Ankara University Medical Faculty within a three-year period. They include all of the malignant melanoma cases admitted to that department within that period. The remaining 11 cases were seen in a special cancer hospital within a period of one year.

Three cases have been excluded from this discussion because of the special localization (one ocular, two oral) of the melanoma; the remaining thirteen cases are analyzed below.

All the cases which were surgically treated were personally examined preoperatively by the author and were operated on either by him or by residents under his supervision.

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A preoperative diagnosis of malignant melanoma was confirmed histologically in all cases. Biopsy slides of two patients whose primary lesions had been removed at another hospital were obtained and reviewed. In other cases, biopsies were made by us.

Our group of 13 patients was composed of eight males and five females. The youngest was 19 years old, and the oldest 65 when first seen. Six of the 13 patients had had a pigmented nevus for years on the site where the tumor later appeared. The shortest and longest intervals between initial recognition of the disease by the patient and the decision to seek medical treatment were three and a half months and six years, respectively.

The patients were classified according to the site of the primary lesion, as follows: head and neck, 5 patients; upper extremities, 4 patients; lower extremities, 3 patients; and abdominal skin, 1 patient.

Treatment

We perform a wide and deep excision of the primary tumor in continuity with prophylactic dissection of the regional lymph nodes if the primary tumor is on or close to the regional lymphatic area. In those cases where the primary tumor cannot be removed in continuity with regional lymph nodes, we prefer to postpone the radical dissection to a later date, allowing enough time for the malignant cells in the lymphatics to reach the regional lymph nodes.

The excision is made at least three to four centimeters from the margin of the tumor or of the pigmented areola, if there is one, and includes removal of subcutaneous tissue and fascia. The local defect is repaired by a skin graft. In two cases disarticulation of the finger and amputation of the toe, respectively, were performed. In one case amputation of the leg was performed for a very advanced local condition. The condition of one patient was found to be inoperable and thus no surgical treatment was given. In three cases we made a local excision only.

Case Reports

The cases are grouped according to localization of the tumor, and details of the treatment are explained below.

Group 1: Head and Neck

Case 1: K.K., a 65 year old woman, came to us first with a 1.5 cm ulcerated lesion in the left zygomatic region after having had an excisional biopsy which showed the lesion to be malignant melanoma. She refused any treatment and left the hospital, but came back eight months later with local recurrence at the biopsy site and with liver enlargement down to the umbilical level (Figure 1). An hepatic needle biopsy was attempted but only necrotic material was obtained. The patient refused a second biopsy and left the hospital without undergoing any treatment.



Figure 1. Group 1, Case 1, a 65 year old female with local recurrence 8 months after local excision.

Case 2: Ü.O., a 45 year old woman, had a 1.5 by 1.5 cm ulcerated tumor of the right zygomatic region, biopsy of which revealed it to be malignant melanoma (Figure 2). She



Figure 2. Group 1, case 2, a 45 year old female with 1.5 by 1.5 cm ulcerated lesion of left zygomatic region. Wide local excision and right radical and left suprahyoid neck dissection were performed.

had a local excision, skin graft, and delayed right radical and left suprahyoid neck dissection. Thirty-two lymph nodes were cleared from the specimen. One gross and two minute metastatic involvements were seen. The patient was treated with postoperative radiotherapy. Seven months after the operation there was no recurrence of the disease.

Case 3: F.Y., a 62 year old man, had had a pigmented nevus removed from his scalp two years before at another hospital. He came to us with an enlarged lymph node the biopsy of which showed metastatic involvement. Examination of the original biopsy slide indicated malignant melanoma rather than a pigmented nevus. Three months after the operation he developed several skin nodules and then brain metastases. Small pox vaccine treatment was tried without any effect. He died six months after the operation with widespread metastases.

Case 4: Ş. E., a 43 year old man, had a local excision and radical neck dissection for a retro-auricular lesion (Figure 3). The defect was covered by the auricula itself. No metastasis was seen in any of the 85 lymph nodes of the radical neck specimen. Three years and two months after the operation there has been no recurrence of the disease.



Figure 3. Group 1, Case 4, a 43 year old male with 0.6 cm retro-auricular tumor surrounded by a pigmented halo 1.3 cm in diameter. Wide local incision including the auricular cartilage, right radical and left suprahyoid neck dissection were done.

Case 5: M.P., a 45 year old man, came to our hospital with a 1.7 by 1.5 cm lesion on the left temporal region (Figure 4 A) and three palpable lymph nodes beneath the anterior edge of the trapezius muscle. Local excision, skin graft, and posterolateral neck dissection were performed (Figure 4B) following the technique described by Rochlin.¹⁶ None of the 20 lymph nodes revealed metastatic involvement. However, six months after the operation, a pre-auricular lymph node was noted and removed. There was no metastasis histologically. The patient was given radiotherapy. In the 18 months since the operation, there has been no evidence of local recurrence or distant metastasis.



Figure 4. Group 1, Case 5, a 45 year old male. A. 1.7 by 1.5 cm temporal lesion. B. Wide excision and posterolateral neck dissection. Note the incision of the posterolateral neck dissection extends from the protuberentia occipitalis externa downward and forward to the supraclavicular fossa, and then backward parallel to the clavicle.

Group 2: Upper Extremities

Case 1: A. A., a 55 year old woman, had a two-year history of subungual tumor on her left index finger. After histological diagnosis of malignant melanoma, metacarpophalangeal disarticulation of the finger (Figure 5) and radical axilla dissection were performed. None of the 14 axillary lymph nodes showed any metastatic involvement. Now, almost two years after the operation, she is without any evidence of disease.



Figure 5. Group 2, Case 1, a 55 year old female with subungual malignant melanoma. Metacarpophalangeal disarticulation and radical axilla dissection were done.

Case 2: N.Ö., a 39 year old man, had a 0.4 by 0.3 cm elevated nevus on the medial surface of his left humerus. Excisional therapy revealed it to be malignant melanoma. Wide excision, skin graft, and radical axilla dissection were done. Twenty-four lymph nodes were cleared from the axillary specimen. None of these showed any metastatic involvement. Two years and four months after the operation, the patient is without any evidence of local recurrence or distant metastasis.

Case 3: R. Y., a 40 year old man, was referred by another hospital after having had a right axillary lymph node biopsy which showed massive metastatic involvement. Following this, local excision of a nevus on his right forearm was also done, and tests revealed this to be malignant melanoma. A wide local excision and radical axilla dissection were done, and metastatic involvement was seen in 25 of 27 lymph nodes. Although radiotherapy was given, the patient died four months following the operation.

Case 4: H.F., a 34 year old man, came to us after having undergone excisional biopsy of a nevus on the lateral surface of his right elbow joint with a resulting diagnosis of malignant melanoma. A wide and deep re-excision was done, and the defect covered with a skin graft. After recovering from this operation, the patient went to England, where a radical axilla dissection was performed. According to the report sent from England, no metastasis was seen in any of the four enlarged lymph nodes. However, the total number of lymph nodes was not mentioned. Now, three months after the operation, the patient is without any evidence of disease.

Group 3: Lower Extremities

Case 1: I. A., a 19 year old man, had had a biopsy of a 2 cm ulcerated nevus on the plantar surface of the second toe of his left foot. Amputation of the mid-portion of the second toe and a delayed ilio-inguinal lymph node dissection by the Gray-Bailey technique¹⁷ were done. Thirty-three lymph nodes were cleared from the dissection specimen and no evidence of metastasis was found. Twenty months after this radical surgery, the patient is without any evidence of local recurrence or distant metastasis. However, a mild degree of lympho-edema developed in his right leg (Figure 6).

Case 2: A.O., a 30 year old man, had several pigmented nodules of three years' duration on the medial and plantar surfaces of his left foot (Figure 7). Two fixed masses, 5.5 by 4 cm and 3.5 by 2 cm, were palpated in the left inguinal region. Because of the solid fixation of the inguinal metastases, the case was considered to be inoperable. Biopsy of the primary tumor revealed it to be malignant melanoma. The patient was referred to the radiotherapy department, but he refused treatment and left the hospital.

Case 3: Z.N., a 38 year old woman, came to the hospital with a 13 by 8 cm ulcerated tumor located on the heel and posterior half of the left foot (Figure 8A). She had had a local excision and radiotherapy eight months previously at another hospital. Amputation of the leg and radical ilio-inguinal lymph node dissection were performed (Figure 8B). She is still in the hospital and the lymph node clearing has not yet been completed.

Group 4: Abdominal Skin

Case 1: K. K., a 37 year old obese woman came to the hospital with multiple ulcerated lesions of the abdominal skin on the left side. The lesions varied in size from 0.5 cm to 7 cm (Figure 9). A wide and deep excision was done, removing an area of



Figure 6. Group 3, Case 1, a 19 year old male with a 2 cm ulcerated tumor on the plantar surface of the second toe of right foot. Metatarsal amputation and radical ilio-inguinal dissection were performed. Note the lympho-edema of the leg and incision scar.



Figure 7. Group 3, Case 2, a 30 year old male with two fixed ulcers on left foot.

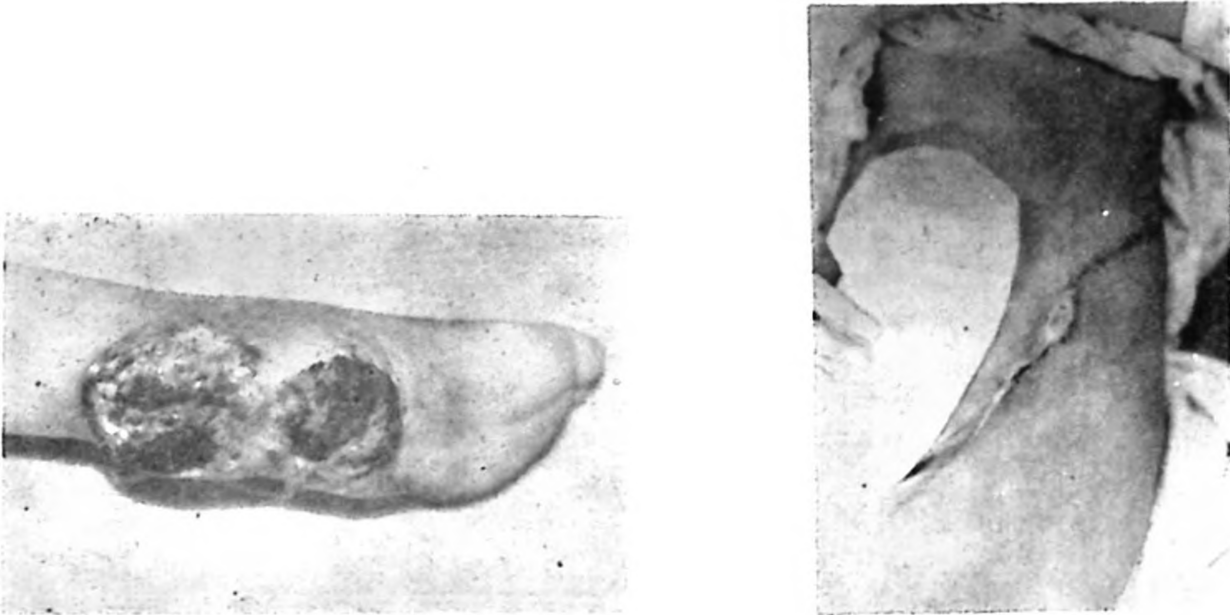


Figure 8. Group 3, Case 3, a 38 year old female. A. Amputation of leg and radical ilio-inguinal lymph node dissection were performed. Ulcerated tumor on heel and posterior half of the left foot. B. The incision extends from the iliac crest to the mid-portion of the femur, as shown.



Figure 9. Group 4, Case 1, a 37 year old female with multicentric malignant melanoma of the abdominal skin. Wide excision was performed.

skin and subcutaneous tissue 22 by 18 cm in size. The skin of the abdomen was so flaccid that the defect closed without any difficulty. Because of the size and number of the lesions, the case was considered to be advanced. Due to this fact and to the obesity of the patient, regional lymph node dissection was not performed. However, eight months after the operation the patient shows no evidence of local recurrence or distant metastases.

Conclusion

Although malignant melanoma is highly malignant, it is curable if adequately treated early in the course of the disease. It is generally accepted today that a biopsy should be done in every case of malignant melanoma before definitive treatment is undertaken. A wide and deep local excision plus prophylactic lymph node dissection is generally considered the operation of choice.

This small group of cases is presented to indicate the surgical treatment of malignant melanoma localized in various areas of the body. However, the postoperative period is not long enough to evaluate the survival rate.

Summary

Thirteen cases of malignant melanoma of the skin are analyzed in this paper. The author believes that wide local excision of the primary lesion plus prophylactic lymph node dissection is the procedure of choice in all operable cases.

REFERENCES

1. Allen, A.C., and Spitz, S.: Malignant melanoma; a clinicopathological analysis of criteria for diagnosis and prognosis, *Cancer* 6: 1, 1953.
2. Booher, R.J., and Fack, G.T.: Malignant melanoma of the feet and hands, *Surgery* 42: 1084, 1957.
3. Charalambidis, P.H., and Patterson, W.B.: A clinical study of 250 patients with malignant melanoma, *Surg., Gynec. and Obst.* 115: 333, 1962.
4. Decker, A.M., and Chamness, J.T.: Melanocarcinoma of the plantar surface of foot; review of 25 cases, *Surgery* 29: 731, 1951.
5. Fortner, J.G., Booher, R.J., and Pack, G.T.: Results of groin dissection for malignant melanoma in 220 patients, *Surgery* 55: 484, 1964.
6. Gumport, S.L., and Meyer, H.W.: Treatment of 126 cases of malignant melanoma. Long-term results, *Ann. Surg.* 150: 989, 1959.
7. Lund, R.H., and Ihnen, M.: Malignant melanoma; clinical and pathologic analysis of 93 cases. Is prophylactic lymph node dissection indicated? *Surgery* 38: 652, 1955.
8. Mc Cune, W.S., and Letterman, G.S.: Malignant melanoma; 10-year results following excision and regional gland resection, *Ann. Surg.* 141: 901, 1955.
9. Meyer, H.W.: Malignant melanoma. The importance of early aggressive treatment, *Surgery* 41: 335, 1957.
10. Meyer, H.W., and Gumport, S.L.: Malignant melanoma; appraisal of disease and analysis of 105 cases, *Ann. Surg.* 138: 643, 1953.

11. Ochsner, A. Sr., and Harpole, D. H.: Malignant melanoma. Its prognosis as influenced by therapy, *Ann. Surg.* 155: 629, 1962.
12. Pack, G.T.: End results in the treatment of malignant melanoma; A later report, *Surgery* 46: 447, 1959.
13. Royster, H.P., and Baker, L.M.: The management of malignant melanoma, *Ann. Surg.* 145: 888, 1957.
14. Block, G.E., and Hartwell, S.W. Jr.: Malignant melanoma: a study of 217 cases. II: Treatment effect, *Ann. Surg.* 154: (6) Suppl: 88, 1961.
15. Catlin, D.: Melanomas of skin of head and neck, *Ann. Surg.* 140: 796, 1954.
16. Rochlin, D.B.: Posterolateral neck dissection for malignant neoplasms, *Surg., Gynec. and Obst.* 115: 369, 1962.
17. Gray, D.B., and Bailey, H.A.: A new technic for radical ilio-inguinal lymph node dissection, *Ann. Surg.* 145: 873, 1957.