MELANOMA OF THE SCALP

REPORT OF A CASE AND REVIEW OF LITERATURE

IDA J. MINTZER, M.D.

(From the Department of Dermatology and Syphilology, New York Post Graduate Medical School and Hospital, Dr. George M. MacKee, Director)

A fatal case of melanoma which had its origin in a pigmented mole of the scalp is reported to emphasize the importance of microscopical examination of excised tissue. An early corroborated diagnosis may have an important bearing on the choice of the therapeutic agents.

REPORT OF CASE

History: G. P., a man, aged forty, born in the United States, sought advice, on Oct. 2, 1928, about a scar on his scalp. The scar was the result of the surgical removal, in April 1928, of a lesion that was thought to be a cyst. This "cyst" had been present for several years, and was repeatedly injured by comb and brush.

A few weeks prior to his first visit the patient noticed that the scar had become raised and increased in size. Otherwise he had no complaints; his general condition was good.

Examination: In the left occipital zone was a scar on top of an elevated area; it measured 2.0 cm. in length, 1.0 cm. in width, and 0.5 cm. in elevation. The color was black in spots, on a pinkish background which faded off into the surrounding scalp. The scar was adherent to the elevation, which was firm, sharply circumscribed, and not attached to the bone. There was no adenopathy either local or general, and no other lesions were observed. The general physical examination was negative.

Course and Treatment: On Oct. 4, 1928, Dr. George M. MacKee made a clinical diagnosis of melanocarcinoma, and advised wide excision with the endotherm knife, to be followed by filtered roentgen-ray therapy to the site of the lesion and adjacent areas. With the endotherm knife, under local anesthesia, the lesion was removed intact, without disturbing or touching it, including a surrounding zone 2 cm. wide, and cutting down to the fascia beneath. The tissue was sent to the laboratory for microscopic examination, together with tissue excised at the earlier operation, performed about six months previously. The tissue had been preserved by the patient; no microscopic examination had been made.

On Nov. 7, 1928, the site of the lesion was treated with x-rays. The factors were: milliamperes, 5; kilovolts, 137; distance, 25 cm.; filter, 3 mm. aluminum; time, 16 minutes. An area with a radius of 4 cm. surrounding the site of the lesion was given a lighter dose of x-rays. The time was six minutes, the other factors being the same as above.

On Dec. 12, 1928, there were enlarged nodes on both sides of the neck, more marked on the left. There was also an enlarged submental node. The enlargement was uniform, superficial, and discrete. The nodes were firm and not tender. One of the posterior cervical nodes was removed for pathological study. At the same time the patient complained of pains along the left shoulder and in the chest.
radiograph was made of the thorax, but the report was "insufficient evidence of pathological change to be of diagnostic value."

On Jan. 28, 1929, another cervical node was removed for microscopic examination. The question of complete dissection of the nodes of the neck was considered, but it was decided that the possible metastases were too diffuse for surgery, and roentgen therapy was advised. On Feb. 15 and 16, 1929, x-ray treatment was given to the left and right cervical regions, respectively: 135 kv., 5 ma.; 4.5 mm. aluminum filter; distance, 25 cm.; time, 15 minutes. The dose to each area was 590 r. By March 1, 1929, the patient had a marked x-ray reaction which lasted seven days and required hospitalization. There was swelling of the neck, and inability to talk or swallow.

By April 12, 1929, there had been a gain in weight of 30 pounds since the removal of the growth. There were no palpable nodes. Scattered over the trunk and extremities, and under the nails, were dark brown macules the size of a pinhead or slightly larger. On the trunk were wheals which were pinkish white in color and intensely pruritic. The latter disappeared in a few days, but the pigmented macules persisted.

On July 10, 1929, the patient complained of abdominal pain and was admitted to the Jamaica Hospital, where he was operated on for acute appendicitis. At the time of the operation it was observed that the liver was irregular in the surface outline, and that the right and left lobes each contained hard nodular masses on the inferior surface, probably metastatic. The immediate postoperative course was uneventful, and the patient was discharged from the hospital July 19, 1929.

On Aug. 1, 1929, examination revealed a markedly distended abdomen. The liver had increased in size, filling half of the abdominal cavity. There was evidence of
ascites. The cervical, axillary, supravacuicular, and inguinal nodes were enlarged and tender. The temperature and pulse were normal. The blood pressure was 120 systolic, and 70 diastolic.

On Oct. 1, 1929, the patient was admitted to a private sanitarium. He showed an intense edema of the lower extremities. The abdomen had increased in size. Dyspnea and vertigo were extreme. Death occurred on Oct. 19, 1929.

Microscopic Examination: Examination of the original scalp lesion, removed in April 1928 (Fig. 1), and of the recurrence in the scar, removed October 1928, confirmed the clinical diagnosis of pigmented melanoma. In the cervical gland removed December 1928, only evidence of inflammatory reaction was noted. The posterior cervical gland removed January 28, 1929, showed metastasis of pigmented melanoma.

Comment

This case illustrates how a benign pigmented mole which has been subjected to repeated trauma or chronic irritation may become transformed into a malignant melanoma.

The lesion diagnosed clinically as "sebaceous cyst," and removed in April 1928, was a fully developed melanoma, and the failure on the part of the surgeon to have the specimen examined is inexcusable. Recurrence was noted six months later, and death ensued a year after the recurrence had appeared. The first lesion was apparently localized, and the dissemination followed the second operation in spite of the x-ray treatment. In all probability, at the time roentgen therapy was given to the metastases in the cervical glands, there were metastases in the retroperitoneal glands and in the liver.

Review of the Literature

The proportion of melanomas of the scalp is small compared with the number of melanomas elsewhere on the body. Among the 91 cases collected by Coley and Hoguet (1) there were only 2 melanomas of the scalp. One, in a man aged thirty-eight, originated in a mole on the scalp, behind the ear. The patient was operated upon twice. X-rays were also used. There was extension of the growth, and finally generalized metastases occurred. The total duration of life after the lesion was first noticed was eighteen months. The second case occurred in a man aged thirty-two. This lesion also originated in a mole on the scalp. There were enlarged nodes. Generalized subcutaneous metastases and liver metastasis occurred. No treatment was given because of the rapid progress of the disease.

Broders and McCarty (2) in a report of 70 cases of melanoma mentioned only one case involving the scalp. Evans and Leucutia (3) reported 31 cases of melanotic tumors of the skin with only one case of melanoma of the scalp. Wyeth (4) reported one case of melanoma of the scalp. Cannon (5), in the discussion of a case
of melanoma presented by Wise, mentions a case in which the scalp was involved. Gately (6) reported a case of melanoma starting on the forehead and extending into the hairy scalp, in a man aged twenty-five, which had its origin in a pigmented spot that was present at birth. Lilley (7) reported a melanoma developing in a boy aged nineteen on the basis of a pigmented mole on the left side of the scalp. Sykes (8) reported a case of melanoma of the scalp. The tumor was removed. Intracranial recurrence and death followed.

A few cases in which melanoma metastasized to the scalp have been reported. Bloom (9) reported a case in a woman aged forty. Her right eye was enucleated because of melanosarcoma about a year prior to the metastasis to the scalp. Way and Light (10) also report a case in which metastasis of melanoma to the scalp took place. The primary lesion originated in a pigmented nevus on the back.

References