Background: Little note was taken when Franklin Delano Roosevelt was alive and since his death of the pigmented lesion above his left eyebrow that fulfilled clinical criteria for melanoma.

Observations: On morphologic grounds alone, it is impossible to exclude the possibility that Roosevelt had a melanoma.

Conclusions: The failure of observers of Roosevelt, especially his physicians, to comment on his riveting facial lesion and to identify it as a probable melanoma speaks volumes about how flawed were clinical criteria for diagnosis of flat and slightly raised lesions of melanoma in the 1930s and 1940s.

Arch Dermatol. 2008;144(4):529-532

By virtue of a variety of technical considerations, such as the angle of the head, the lighting of the face, and the brightness and contrast of the print, the pigmented lesion above Franklin Delano Roosevelt’s left eyebrow shows considerable variation in intensity in many of the photographs (Figures 1, 2, 3, 4, and 5) of the person most photographed in the 20th century. In the photographs in which Roosevelt’s face is captured in profile, the pigmented lesion appears to extend from the lower part of the forehead to the base of the eyebrow.

The criteria currently touted for diagnosis of a slightly raised lesion of melanoma, a malignant neoplasm composed of abnormal melanocytes, are the “ABCDEs”: Asymmetry, Border irregularity, Color variability, Diameter greater than 6 mm, and Elevation (or, for some proponents of the mnemonic, Enlarging or Evolving). The fully developed pigmented lesion above Roosevelt’s left eyebrow admirably fulfills those criteria. But the ABCDEs also are encountered from time to time in a disparate variety of other pigmented lesions of the skin, among them being solar lentigo/seborrheic keratosis, melanocytic nevi of different kinds, and pigmented basal cell carcinoma.

Melanoma vs Solar Lentigo/Seborrheic Keratosis

A solar lentigo is a benign neoplasm constituted of pigmented keratocytes. When it becomes elevated and, in the process, assumes an appearance more advanced histopathologically, the same condition then is referred to as a seborrheic keratosis of the reticulate type. On occasion, a solar lentigo/seborrheic keratosis may acquire characteristics that conform to the ABCDEs. Roosevelt was an inveterate sailor and had many solar lentigines, particularly on the dorsum of his hands, these contrasting strikingly with the pigmented lesion above his left eyebrow. Despite that reality, not all solar lentigines are tiny; some may achieve a size like that of the lesion above Roosevelt’s left eyebrow—and even larger.

On gross morphologic grounds alone, the pigmented lesion above Roosevelt’s left eyebrow could be either a melanoma or a solar lentigo/seborrheic keratosis. Only a study of sections of tissue obtained by biopsy would enable the conundrum to be resolved conclusively. No evidence exists that the lesion ever was biopsied or treated in any way. Sad to say, most of Roosevelt’s medical records are missing; none at all pertinent to the pigmented lesion above the left eyebrow have been found.

The fact that the pigmented lesion was variegated in shades of brown and very dark brown in the arciform portion of it is more
consonant with melanoma than with solar lentigo/seborrheic keratosis. Moreover, whereas a large solar lentigo/seborrheic keratosis on a face usually is accompanied by other large solar lentigines/seborrheic keratoses, melanoma presents itself conventionally as an isolated lesion, as was the case for Roosevelt’s pigmented lesion. That finding, too, favors a diagnosis of melanoma. However, melanoma, being the malignant neoplasm irrepressible in growth that it is, would be expected in the course of the 20 years from 1923 to 1943 to have attained a diameter greater than that of the lesion seen above Roosevelt’s left eyebrow (at the apogee it was only about 2.5 cm × 2.0 cm in diameter). Furthermore, for several years prior to 1943, the lesion showed no sign of centrifugal extension or of progressive elevation above the surface of the skin. That behavior also militates somewhat against melanoma.

Episodically, a melanoma may undergo involution in the form of ever-expanding hypopigmentation over the course of several years, the process often causing the pigmented portion yet remaining to assume an archlike configuration. Only uncommonly does a melanoma regress entirely, leaving as residuum but a macule of hypopigmentation. Although the arciform character of the darkest pigmentation of Roosevelt’s lesion surely is in keeping with the clinical appearance of partial regression of melanoma, it would be unusual for the lesion above the left eyebrow to have undergone complete regression in the rather short space of 4 years (ie, in the period from early 1940 to 1943). Biologically, such a phenomenon is unlikely. For regression in toto of a melanoma that size to have occurred should have taken considerably longer.

Solar lentigo/seborrheic keratosis also is known to regress completely, but when that happens, almost always the lesion is small, situated on the chest, and accompanied often by signs of inflammation so noticeably viola-
ceous that at this stage of involution it is known universally as "lichen planus–like keratosis," lichen planus being an eruption typified by purple papules.

If Roosevelt’s lesion did not undergo involution entirely, then it must have been removed surgically or have been camouflaged by makeup. However, there is no evidence for either. No sign of a scar from a surgical excision is apparent. In short, how his pigmented lesion came to disappear from 1940 to 1943 remains an enigma. Independent of that, on the basis of all that is known presently about the morphologic aspects and biologic behavior of his lesion, it is impossible, despite the imponderables, to exclude melanoma.

ROOSEVELT’S PIGMENTED LESION IN THE CONTEXT OF HIS HEALTH IN GENERAL

All details of Roosevelt’s health, especially during his 12 years as the 32nd President of the United States, were shrouded in secrecy while he was alive. The most flagrant example of duplicity was that although Roosevelt never was able to support his own weight without the use of metal braces on his legs as a consequence of his having contracted poliomyelitis in 1921, the American public was shielded from knowledge of his extraordinary physical disability. Most Americans were unaware that he was unable to walk without assistance. Complicit in this “splendid deception” (the title of a biography of Roosevelt by historian Hugh G. Gallagher, who also had contracted poliomyelitis) were Roosevelt’s physicians, as was the press. Of the tens of thousands of images of Roosevelt in photographs and films, fewer than a handful show him compromised physically, despite the fact he was wheelchair bound. Every aspect of his appearance and public persona was painstakingly orchestrated.

Ross T. McIntire, MD, a career navy man who eventually attained the rank of Vice Admiral and Surgeon General of the Navy, was Roosevelt’s personal physician from 1933 until the President’s death in 1945. A specialist in head, eye, ear, nose, and throat disease, McIntire was chosen to be Roosevelt’s personal physician not only because the President was prone to sinus disease, but because McIntire had a reputation for unwavering loyalty and for “keeping a tight lip.” He was recommended for that post by Roosevelt’s close friend, Cary T. Grayson, MD, who had been physician to Woodrow Wilson and was a central figure in the cover-up of Wilson’s devastatingly disabling stroke in 1919.

After Roosevelt’s death in April 1945, persistent rumors surfaced about his health. McIntire, in a book (largely ghostwritten) published in 1946, denied that Roosevelt had experienced any chronic malady of significance. Until McIntire’s death in 1959, any information germane to Roosevelt’s health was guarded closely and effectively.

In a volume that appeared in 1970, historian Hugh L’Etang was the first to raise publicly the specter that Roosevelt had a melanoma. His assertion was deflected in an apparently coincidental but, more likely, a purposefully timed article by Howard G. Bruenn, MD, a cardiologist who was the last surviving member of the inner circle of Roosevelt’s physicians and who saw Roosevelt on a daily basis from March 1944 to April 1945. Bruenn set forth many previously undisclosed details that came from Roosevelt’s medical records, emphasizing those of a cardiologic and vascular character that the President had experienced during the last year of his life. No reference whatsoever was made by Bruenn to the pigmented skin lesion above the left eyebrow, despite it being decidedly unsightly. That omission, the wording of an editorial that accompanied Bruenn’s article, and corre-
spondence between Bruenn and Roosevelt’s children suggest a deliberate attempt to minimize the impact of L’Etang’s assertion of melanoma.

In 1979, Harry S. Goldsmith, MD, a well-respected surgeon, raised, for the first time in a peer-reviewed medical journal, the possibility that Roosevelt’s pigmented lesion was a melanoma. Goldsmith cited reports and observations of creditable and competent physicians and, in addition, presented what he deemed to be photographic evidence of the existence and then the disappearance of the lesion in question. Goldsmith’s article gained considerable attention at the time it was published, but the emphatic public denial by Bruenn served to quash the hypothesis of melanoma and preserve the prevailing idea that the cause of Roosevelt’s lesion was a melanoma, even by dermatologists, but was considered to be benign—that is, a senile pigmented patch (Figure 6)—or, at worst, a precancerous circumscribed melanosis. Given the fact that melanoma, solely on the basis of clinical inspection, should have been the most likely suspect for Roosevelt’s lesion, why was that possibility never raised? How could it have gone undiagnosed by dermatologists throughout the United States and the world who regularly observed it in photographs and in films? Astonishingly, to our knowledge, the only reference during Roosevelt’s lifetime to that lesion was by McIntire in a letter written in January 1940 in response to a colleague, Reuben Peterson, MD, in which the physician/admiral assured that the lesion was “under observation at all times.”

In the 1920s, 1930s, and 1940s, a lesion such as Roosevelt’s was not diagnosed as melanoma, even by dermatologists, but was considered to be benign—that is, a senile pigmented patch (Figure 6)—or, at worst, a precancerous circumscribed melanosis. Even in the late 1950s, such a lesion was deemed to be a precursor of melanoma, not a melanoma per se.

The editorial that appeared in 1970 in the Annals of Internal Medicine complementary to the article by Bruenn affirmed that “there was no clinical evidence for such a lesion [melanoma] and no autopsy was performed.” But that statement certainly is not in synchrony with the attributes of Roosevelt’s lesion. On clinical grounds alone—that is, gross inspection—it is impossible to exclude melanoma. Because it seems that the lesion described herein never was biopsied, the answer to the question of the authentic character of it must for now be couched as supposition.

Given the fact that melanoma, solely on the basis of clinical inspection, should have been the most likely suspect for Roosevelt’s lesion, why was that possibility never raised? How could it have gone undiagnosed by dermatologists throughout the United States and the world who regularly observed it in photographs and in films? Astonishingly, to our knowledge, the only reference during Roosevelt’s lifetime to that lesion was by McIntire in a letter written in January 1940 in response to a colleague, Reuben Peterson, MD, in which the physician/admiral assured that the lesion was “under observation at all times.”

In the 1920s, 1930s, and 1940s, a lesion such as Roosevelt’s was not diagnosed as melanoma, even by dermatologists, but was considered to be benign—that is, a senile pigmented patch (Figure 6)—or, at worst, a precancerous circumscribed melanosis. Even in the late 1950s, such a lesion was deemed to be a precursor of melanoma, not a melanoma per se.

The editorial that appeared in 1970 in the Annals of Internal Medicine complementary to the article by Bruenn affirmed that “there was no clinical evidence for such a lesion [melanoma] and no autopsy was performed.” But that statement certainly is not in synchrony with the attributes of Roosevelt’s lesion. On clinical grounds alone—that is, gross inspection—it is impossible to exclude melanoma. Because it seems that the lesion described herein never was biopsied, the answer to the question of the authentic character of it must for now be couched as supposition.