# Depression and Anxiety As Predictors of Outcome After Myocardial Infarction

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Objective: The objective of this study was to investigate the significance of emotional distress immediately after a myocardial infarction as a predictor of physical, psychological, and social outcomes and resource use. Methods: In an epidemiological survey, demographic and cardiological data were obtained for all patients from a defined geographical area who had had a myocardial infarction (according to diagnostic criteria of the Monitoring Trends and Determinants in Cardiovascular Disease [MONICA] trial). Hospital survivors were interviewed and were asked to complete self-report assessments on mental state and quality of life. Full replies were available at baseline for 347 subjects. Self-report follow-up questionnaire information was collected 3 months and 1 year later. Results: Fifteen percent of patients scored as probable cases of anxiety or depression. They were more likely than noncases to report preinfarct distress and poor adjustment (as indicated on the 36-item Medical Outcome Study short form). There was an improvement at 3 months, but there was little overall or individual change after that time. Anxiety and depression did not predict subsequent mortality but did significantly predict poor outcome at 1 year on all dimensions of the 36-item short form quality-of-life measure and on specific measures of everyday activity and reports of chest pain, use of primary care resources, and secondary prevention lifestyle changes. Conclusions: Subjects who are distressed in the hospital are at high risk of adverse psychological and quality-of-life outcomes during the ensuing year. Our findings strengthen the argument for in-hospital identification and treatment of patients with depression and anxiety after myocardial infarction. Key words: myocardial infarction, outcome, depression, anxiety, predictors.

HAD = Hospital Anxiety and Depression Scale; MI = myocardial infarction; MONICA = Monitoring Trends and Determinants in Cardiovascular Disease Study; SF-36 = 36-item Medical Outcomes Study short form.

#### **INTRODUCTION**

Recent attention has focused on the role of depressed mood as a predictor of mortality after MI (1–3). There has been less interest in anxiety (4) and the extent to which depression and anxiety predict other aspects of outcome. Several early accounts of the psychological and social consequences of MI showed that multiple aspects of long-term outcome could be predicted during the hospital stay (5–7). A previous article examined prediction of multiple outcomes in two prospectively studied series of patients recovering from MI (7). The authors concluded that aspects of early and late outcome could be predicted with modest accuracy from information obtained at the time of hos-

pital admission. More accurate prediction of late outcome was possible using early convalescence data (7). Other studies have examined prediction of particular aspects of outcome. Initial psychological factors predict later mental state (8, 9); there is also more limited evidence that initial distress predicts outcome for return to work and for some other aspects of quality-oflife outcome (10), lifestyle changes (8, 11), compliance with medical care (12–14), and subsequent chest pain (15). There is additional, similar evidence for mixed groups of subjects with coronary artery disease (16– 18).

Early prediction of psychological problems is an important clinical issue because it is believed that there is considerable "potential for large cost savings through improved treatment of depression in the physically ill" (19). We need to know to what extent immediate emotional distress (anxiety and depression) predicts all aspects of outcome after MI, both because this has important clinical applications to planning aftercare and rehabilitation and because it may give insight into mechanisms underlying an association between depression and cardiac mortality and morbidity. This article is a report of our findings in a sample derived from a thorough study of the 1-year, precisely defined epidemiology of MI in a defined geographical area (20). The aims of the study were 1) to describe the prevalence, course, and associations of anxiety and depression disorder in the year after hospital admission; 2) to examine the association of anxiety and depression in the hospital with pre-MI psychosocial status and their significance as predictors of psychological status, quality of life, secondary prevention,

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use of services, and mortality; and 3) to draw conclusions about the implications for clinical practice.

#### **METHODS**

The Oxford Myocardial Incidence Study has been described in detail elsewhere (20). It was conducted in Oxfordshire, a mixed urban and rural county in England. The study protocol received ethical approval (Central Oxford Research Ethical Committee, Oxfordshire Health Authority, UK; COREC 2469), and patients gave informed consent to participate. Multiple methods of case ascertainment were used to identify all cases of suspected MI in residents of Oxfordshire aged less than 80 years from November 14, 1994, to November 13, 1995. These included review of admission records for the two principal general hospitals in the county, asking all primary care practitioners to notify the study office of all suspected MIs, daily screening of biochemistry records for requests for cardiac enzyme and electrocardiographic tests, and review of death certificates, autopsy records, and Office of National Statistics data.

A detailed questionnaire was completed for each event registered in the study, and the event was assigned to a diagnostic category (definite MI, possible MI, no MI, or other; see below) according to MONICA criteria, which are primarily based on symptoms, electrocardiographic findings, and cardiac enzyme levels (21).

In addition to this cardiological information, patients were asked to complete self-report measures of psychological and social functioning at baseline (within the first 3 days after admission) and at 3 and 12 months. These measures comprised the HAD scale (22, 23); the SF-36 (24), using the cutoffs for caseness (anxiety disorder, depression, and psychiatric disorder) recommended by the authors of the scale, which was cited in a recent systematic review as being comparable with other instruments (23); and additional questions derived from our previous cardiac research (25). Mortality data after discharge were obtained from the Office of National Statistics register of all deaths.

#### Statistical Analysis

To examine mortality 6 and 18 months after discharge from the hospital, we followed the statistical methods used by Frasure-Smith et al. in their analysis at 6 months (1). Each baseline variable was dichotomized at a point determined before the analysis (if not already dichotomous), and a Cox model hazard ratio was determined. All variables significantly related to death in these univariate comparisons were entered into a stepwise multiple regression analysis. For other findings, a  $\chi^2$  or *t* test was used as appropriate.

The question of whether distress was significantly and independently associated with death in our patients was investigated as follows. Patients were divided into cases and noncases of distress at baseline according to their HAD scores; patients who had a depression score greater than 10 or whose summed depression and anxiety scores was greater than 19 were considered a "case." The regression models with and without distress were then compared using the likelihood ratio test to determine whether adding distress significantly increased the capacity of the model to predict death.

#### RESULTS

During the study period, there were 546 definite or possible MIs according to MONICA criteria. Of these, 160 patients were not interviewed: 98 died early during the admission, 33 were too sick, and 29 had language or communication problems. Therefore, the maximum possible number of responses was 386. Three hundred, forty-four subjects provided adequately complete questionnaire data; their characteristics are shown in Table 1.

At 3 months, 243 of the 344 patients (71%) completed the self-report questionnaire. The 101 nonresponders included 9 patients who died, 25 who did not return their forms, 1 who moved, 2 who were too ill, 1 whose partner was too ill, and 63 who had indicated at baseline that they did not wish to receive additional questionnaires (a condition of ethical approval). At 12 months, 224 patients (65% of the original sample) responded. The 120 nonresponders now included 21 patients who died, 63 who had indicated that they were unwilling to participate at baseline, 33 who did not return their forms, 2 who moved, and 1 who was too ill. There were no differences between responders and nonresponders at follow-up in terms of mortality or in the characteristics listed in Table 1.

# Emotional Distress During Initial Hospital Admission

During hospital admission, 64 (18.5%) subjects scored as "probably clinically significant" cases of anxiety, and another 66 (19.1%) scored as borderline cases using the thresholds suggested by the developers of the HAD scale; 26 (7.6%) were probable cases of depression, and an additional 34 (9.9%) were borderline cases (see Figs. 1 and 2 and Table 2). Mean scores for anxiety and depression were 6.6 and

**TABLE 1. Subject Characteristics** 

	Total Sample at Baseline (N = 344)		Distressed Cases at Baseline (N = 51)		Nondistressed Cases at Baseline (N = 293)		Р
Age, mean (range), years	63.16	(30–79)	57.98	(30–79)	64.06	(30–79)	.001
Length of hospital stay, mean (range), days	8.57	(2–28)	10.14	(4–28)	8.31	(2–28)	.017
Female, N (%)	93	(27)	16	(31)	77	(26)	NS
Medical problems							
and procedures before MI, N (%)							
Infarct	75	(22)	11	(22)	64	(22)	NS
Angina	97	(29)	18	(35)	79	(27)	NS
Angiography	48	(14)	12	(24)	36	(12)	NS
Angioplasty	10	(3)	2	(4)	8	(3)	NS
Coronary artery bypass graft surgery	31	(9)	7	(14)	24	(8)	NS





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Fig. 2. HAD depression scores at baseline.

4.7, respectively, and, as expected, distributions were positively skewed by a minority of high scores (see Figs. 1 and 2). Overall, 51 of 344 patients (14.8%) were probable cases of emotional disorder (using the recommended threshold of 19). We performed both separate and combined analyses for anxiety and depression. There were no differences in patterns of associations; therefore, we report findings for overall psychiatric caseness.

Distress in the hospital was associated with a significantly longer hospital stay, younger age, and a history of psychological and social difficulties but not with cardiac history and status. Distress was also associated with significantly worse scores on all dimensions of the SF-36, the answers of which covered the period of 4 weeks before admission. Significantly more distressed subjects were smokers (55% compared with 29% of nondistressed subjects, p < .001). Twenty-four percent of those distressed in the hospital reported that they had been receiving treatment for "a nervous problem" before admission, compared with 11% of nondistressed patients (NS). Course of Anxiety and Depression During the Follow-Up Year

In the majority of initially nondistressed subjects, there were no changes in anxiety or depression scores during the year, and their scores remained low and comparable with those reported for general populations. In contrast, distress showed a strong tendency to persist during the follow-up year. There were improvements in mean scores for anxiety and depression between the baseline and 3-month assessments in patients in the distressed group, but thereafter no changes were observed (Figs. 3 and 4). Patients who were distressed in the hospital had significantly higher mean scores for both anxiety and depression at both 3 months and 1 year than those who were not distressed (Table 3). This pattern was also evident in the proportion classified as psychiatric cases at each stage using the recommended cutoffs for caseness (22, 23). Twenty-eight percent (N = 9) of cases of distress at baseline still qualified as cases at 3 months, compared with only 5% (N = 11) of baseline noncases (p < .0001) who became cases at 3 months. Thirty-five percent (N = 11)of cases of distress at baseline were cases at 12 months, compared with 6% (N = 12) of noncases at baseline (p < .0001) who became cases at 1 year; 57% (N = 4)of those distressed at baseline and 3 months remained psychiatric cases at 1 year. The course of depression and anxiety was not significantly related to any initial measure of cardiac impairment

Emotional Distress in the Hospital as a Predictor of Physical Symptoms, Quality-of-Life Outcome, and Lifestyle Change

Baseline distress was strongly predictive of poor symptomatic, psychological, and social outcome at 3 and 12 months. This was seen on both the generic SF-36 measure of function and quality of life and on specific measures of symptoms and everyday functioning and lifestyle change.

Symptoms of chest pain and breathlessness. There were trends for the initially distressed subjects to report more physical symptoms and to be more worried. At 3 months, 61% of the distressed subjects and 47% of the nondistressed subjects had experienced chest pain in the previous month (p = NS); this pain was more severe in the distressed group, 67% of whom described it as "very or moderately limiting," compared with 35% of the nondistressed group (p > .05). At 3 months, 62% of those distressed at baseline and 37% of those nondistressed at baseline had experienced recent "very or moderately limiting" breathlessness (p = NS).

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Score	HAD Anxiety Scale (N = $346$ )		HAD Depression Scale (N = $344$ )		Cases of Distress <sup>b</sup> (N = 344)		
	N	%	N	%		Ν	%
<8 (normal)	216	62.4	284	82.6	Noncases	293	85.2
8–10 (borderline)	66	19.1	34	9.9	Cases	51	14.8
>10 (probably clinically significant)	64	18.5	26	7.6			

#### TABLE 2. HAD Scores During Initial Admission<sup>a</sup>

<sup>*a*</sup> Two subjects who completed the anxiety questionnaire did not complete the depression questionnaire and were excluded. <sup>*b*</sup> Depression score + anxiety score > 19.



Fig. 3. Mean HAD anxiety scores for distressed and nondistressed subjects at baseline, 3 months, and 12 months.



Fig. 4. Mean HAD depression scores for distressed and nondistressed subjects at baseline, 3 months, and 12 months.

At 12 months, 77% of distressed subjects and 41% of nondistressed subjects reported chest pain in the previous month (p > .0001); most of this chest pain was nonspecific (as classified by the Rose criteria) (36).

Quality of life (SF-36). Patients who had been distressed at baseline had a significantly worse outcome at both 3 months and 1 year on all dimensions of the SF-36 than nondistressed patients (Table 3). This was true not only for the emotional dimensions but for all measures of physical and social function. Subthreshold distress (defined as a depression score <11 and a total anxiety and depression score >14 and <20) did not predict poorer SF-36 scores than nondistressed subjects at 3 or 12 months.

SF-36 scores for the whole cohort at follow-up were comparable with those recently reported at 4 years for a large British cohort (26) and were significantly worse than British population norms. Distressed patients scored significantly worse throughout the year, whereas nondistressed subjects had similar scores. The functional deficits on all SF-36 dimensions persisted during follow-up. For example, the mean physical function score of distressed patients was 64.1 at baseline, 51.3 at 3 months, and 59.1 at 1 year.

Everyday activities. Distress predicted functional deficits across a range of important everyday activities relevant to MI patients at 3 months. Both distressed and nondistressed patients were doing "somewhat or much less" in their daily routine (55% and 33%, respectively; p = .05), leisure activities (62% and 25%, respectively; p < .001), and social activities (32% and 18%, respectively; p = .04). Slightly more distressed than nondistressed patients had gone back to or were seeking work at 3 months (29% vs.23%), but this difference was not significant.

At 1 year, the differences remained striking. The percentages of distressed and nondistressed subjects doing somewhat or much less in their daily routine was 52% and 22%, respectively (p = .0008); in leisure activities, 41% and 19%, respectively (p = .006); and in social activities, 52% and 18%, respectively (p = .0001). Slightly more distressed than nondistressed subjects had gone back to work (42% vs. 32%, NS).

Lifestyle change. Those with anxiety and depression just after their MI were more likely at 3 months to report that they were doing somewhat or much less exercise (59% cases vs. 31% noncases, p = .001). By 1 year, 51% of cases and 26% of noncases reported that they were doing somewhat or much less (p > .005).

At 3 months, fewer of the distressed than nondistressed (62% vs. 57%, NS) reported that they had

SF-36 Dimension	Baseline		3 Months		12 Months		Comparison Group <sup>a</sup> (N = 2489)	
	Distressed	Nondistressed	Distressed	Nondistressed	Distressed	Nondistressed	Mean (95% $CI$ ) <sup>b</sup>	
General health perception	51.2	67.5 <sup>c</sup>	38.7	62.3 <sup><i>c</i></sup>	47.2	64.0 <sup>c</sup>	60.8 (59.9-61.7)	
Physical function	64.1	$71.0^{d}$	51.3	67.2 <sup>c</sup>	59.1	71.4 <sup>c</sup>	78.3 (77.4–79.2)	
Physical role limitation	34.9	62.6 <sup>c</sup>	15.2	41.9 <sup>c</sup>	35.8	58.8 <sup>c</sup>	71.9 (70.4–73.4)	
Emotional role limitation	35.4	70.8 <sup>c</sup>	25.0	74.6 <sup><i>c</i></sup>	33.3	75.7 <sup>c</sup>	76.3 (73.9–77.7)	
Social function	49.5	82.6 <sup>c</sup>	56.9	79.0 <sup>c</sup>	64.5	85.5 <sup>c</sup>	71.9 (70.4-73.4)	
Mental health	49.9	79.8 <sup>c</sup>	61.4	78.3 <sup>c</sup>	56.7	79.1 <sup>c</sup>	75.4 (74.8-76.0)	
Energy and vitality	36.7	60.6 <sup>c</sup>	39.4	56.8 <sup>c</sup>	41.0	59.7 <sup>c</sup>	54.0 (53.0–55.0)	
Pain	54.4	77.1 <sup>c</sup>	57.9	$75.9^{c}$	66.7	76.3 <sup>c</sup>	69.8 (68.8–70.8)	

TABLE 3. Mean SF-36 Scores at Baseline, 3 Months, and 12 Months by Baseline Distress

<sup>*a*</sup> We used the Oxfordshire Healthy Lifestyle Survey as our comparison (37). This survey reports SF-36 scores for a large community sample, grouped according to whether they had "consulted primary care practitioner in last 2 weeks; no primary care practitioner consultation in last 2 weeks; no longstanding illness reported; longstanding illness reported." We chose the last group as our comparator, because it had the worst scores of the four groups.

<sup>b</sup> CI = confidence interval.

 $^{c}$  Difference between distressed and nondistressed subjects is statistically significant (p < .05).

<sup>d</sup> Not significant.

"seriously tried" to change their diet in the preceding 3 months. There was very little change in the figures at 12 months.

Forty-one percent of distressed smokers who had smoked before their MI were smoking at 3 months, compared with 10% of nondistressed smokers (p >.01); at 1 year, the figures were 47% of distressed and 29% of nondistressed subjects.

# Anxiety and Depression in the Hospital and Subsequent Use of Health Services

Depression and anxiety in the hospital predicted overall number of primary care visits (p < .05) and surgery consultations at both 3 months and 1 year, and this was particularly so for home visits by the general practitioners for routine or emergency care (p < .05). Thus, 15% of distressed subjects said that at 1 year they had had more than four emergency visits, compared with 2.5% of nondistressed subjects. There were no significant differences in hospital attendance, although there were trends for distressed subjects to have had more emergency outpatient appointments and visits to the hospital emergency department.

Anxiety and Depression in the Hospital as a Predictor of Mortality

There were 14 deaths among the 347 subjects assessed at baseline (344 of whom completed the HAD) in the first 6 months after the MI (3 distressed subjects and 11 nondistressed subjects) and an additional 14 deaths at 18 months (3 distressed subjects and 11 nondistressed subjects).

The variables that, in single-variable estimations, significantly predicted death at the p < .05 level were entered into a stepwise Cox multiple regression analvsis to determine the model that best predicted death at 6 and 18 months. Baseline distress was then forced into the model, and the fit of the two models, with and without distress, was compared using the likelihood ratio test. Adding distress did not significantly improve the fit of the model, indicating that baseline distress did not predict mortality at either 6 or 18 months. Because Frasure-Smith et al. (2) used a different statistical procedure, multiple logistic regression, in their analysis of 18-month outcome than that used at 6 months, we repeated analyses of our data with logistic regression, but again there was no prediction of mortality at either 6 or 18 months.

Anxiety and Depression at 3 Months as a Predictor of Outcome at 1 Year

The strongest predictor of distress at 1 year was distress at 3 months. Fifty-three percent of patients distressed at 3 months continued to qualify as cases at 1 year, compared with only 7% of noncases (p < .0001) who became distressed at 1 year. Most of the

subjects no longer rated as cases at 1 year had subthreshold symptoms.

As expected, baseline mental state predicted other outcomes, although with smaller numbers these were not all statistically significant. For example, 54% of the distressed and 23% of the nondistressed were doing somewhat or much less in their daily routine (p >.05), 43% and 19%, respectively, were doing somewhat or much less in leisure activities, and 36% and 20% were doing somewhat or much less in social activities, respectively, although these latter two differences did not reach statistical significance.

## DISCUSSION

The sample described in this article is derived from a series of patients identified as having had an MI during a thorough epidemiological study of MI within a British county. We concentrated on comparing probable cases with noncases rather than using mental state scores so that our findings would have maximum possible clinical relevance. The nature of the data collection and the precise MONICA diagnosis of MI, together with the defined geographical basis of the study, are all important advantages. However, there were some limitations in the data collection. A proportion of subjects did not complete the extra mood and quality-of-life instruments, mainly for practical reasons, and there were significant numbers of nonresponders to the selfreport questionnaires sent to subjects at 3 and 12 months. The comparison of responders and nonresponders on available data does not suggest substantial biases. Overall, the sample remains substantially representative of the whole population of MI patients in the defined geographical area.

It is important to note that changes in the epidemiology of coronary artery disease and more vigorous medical treatment and mobilization have resulted in considerable recent improvement in post-MI mortality rates (20) and psychosocial outcome. This has made it increasingly difficult to demonstrate adverse effects of depression and anxiety. The number of deaths during the 18 months after discharge from the hospital is low, as has been reported in other recent series. The mortality rate in our study, 5.3%, compared with 7.7% reported by Frasure-Smith et al. (2), means that, assuming depression is also probably somewhat less common in our sample, we would need a series of at least 1000 patients to identify an effect.

The prevalence of psychiatric disorder, especially depression, was somewhat lower than in some other series, although mean scores for depression and anxiety were similar to those of other post-MI series that have used the HAD scale (27–29) and were comparable with those reported in other medical populations (23). The anxiety and depression scores in the greater number of nondistressed subjects are similar to those reported for general populations. None of the subjects were prescribed new antidepressant medication during the follow-up year.

These findings confirm and also extend previous findings on specific aspects of outcome. The 15% of patients who were distressed in the hospital reported significantly more psychosocial problems before their MI and were more likely to have been smokers. After the MI, they suffered more psychological complications and reported more physical symptoms, more adverse effects on everyday life, and more use of health resources. The effect sizes for the specific questions about symptoms, lifestyle, everyday activities, and service use, and comparison with generic SF-36 and HAD population norms, indicate differences in outcome for distressed and nondistressed patients that are of substantial clinical importance. Nondistressed subjects have generally good outcomes in comparison with HAD and SF-36 norms and on other measures, whereas those who are initially distressed have substantially poor outcomes unrelated to initial cardiological measures.

A conspicuous result is our failure to confirm that depression, anxiety, or the combination of anxiety and depression (with or without evidence of previous psychiatric problems) predicts mortality. There were no associations between anxiety or depression and cardiac status at baseline, but we do not have objective evidence about later cardiac status. It remains possible that there is an association between mood and later cardiac status and other outcomes. Our study is based on a more representative population of MI patients but used a simpler self-report measure of depression at a somewhat earlier stage after MI and found a lower prevalence of depression. Although the current weight of published evidence (30, 31) does suggest a statistical association between depression and mortality after MI, it seems probable that the effect size may not be substantial enough to be clinically significant. The mechanisms of any increased mortality associated with low mood are uncertain, but our findings indicate major differences in psychological and behavioral factors between depressed and nondepressed patients that are clearly evident before the MI and apparent throughout convalescence.

## **Clinical Implications**

Early recognition of depression and anxiety would identify a sizable subgroup of patients at high risk of poor outcomes. Monitoring and early treatment could

have substantial benefits not only in terms of distress but also with a very wide range of other adverse outcomes. It is apparent that an easy, inexpensive, selfreport measure of emotional distress at baseline is a strong predictor of poor outcome on physical, psychological, and functional measures. The explanation of the extent to which cardiac and psychological factors are responsible for these findings requires further study, but there are still clear clinical implications. The aims and most cost-effective delivery of such care remain uncertain (32). Recent and current research on psychological interventions has concentrated on prolonged and elaborate programs during convalescence, with disappointing results (33, 34). In contrast, current cardiac rehabilitation guidelines suggest a combination of good in-hospital information, discussion of advice, and setting of objectives, followed by an individualized plan for later treatments. This approach is similar to the stepped approach to treatment of depression in primary and community care settings (35).

Published randomized, controlled trials (27, 29) and a recently completed study from Oxford (Mayou et al., forthcoming) have shown that simple but systematic in-hospital intervention by cardiac nurses may have substantial benefits for mood and other outcomes, both early in convalescence and at 1 year. We find that such programs also enable early identification of other needs, which can best be met in a individualized manner using standard and proven behavioral, psychological, and psychiatric treatments. Those with depression and anxiety in the hospital should be seen as requiring special attention.

The significance of anxiety and depression, and indeed of other psychological variables (eg, cognitions), indicates the need for a better theoretical understanding of the significance of psychological and behavioral factors after MI and for the application of current knowledge about the efficacy of psychiatric and psychological treatments to the development of improved programs of care, which necessarily will have to be largely provided by those without specialist psychological expertise.

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# How JFK Killed My Father

Within recent medical times, psychologic investigations have reawakened interest in the psychological settings in which illness develops. Reports in the literature have singled out loss as a precipitating factor in a variety of disorders . . . including ulcerative colitis.—Arthur H. Schmale, Jr. MD, in **Psychosomatic Medicine** 1958; 20.

It was a time men wore fedoras banded on the crown, each band with a feather tucked into a bow, and inside, sweatbands carved from calf skins with their sweet smell of animal and earth. I remember the photo over my grandfather's desk, a sepia toned panorama shot from his ninth floor factory window, Broadway below a surge of ticker-tape and hats tossed in the air for FDR, hats pouring into the street, hats waved in exaltation, hats taking off like America.

After two war-time winters in Greenland my father came home, hat in hand, and bought the sweatband business, made it grow like his young family, presidents and hopefuls motorcading down Broadway: Truman in a Scala wool Hamburg, Ike's bald head steamed in fur felt, Stevenson's ideals lost in the glory of a two-inch-brimmed Stetson. But when thick-haired Kennedy rode top down and bare-headed, men all over America took off their hats in salute, in praise, and imitation, flung them into the street forever. Hat factories closed quiet as prayer books, and loss lingered in my father's guts like unswept garbage after a big parade.

Years later, yarmulke on my head, they asked me to view him in his coffin. I can still see his face shaved smooth as calf skin, his dark suit, crisp white shirt and tie, how I laughed that they dressed him for eternity without a hat. And I can still hear the old men murmur in the graveyard, *Kennedy did it to him,* fedoras held close to their leathered hearts.

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