

LETTERS TO THE EDITOR

UNDERUSE OF ANTICOAGULATION IN OLDER PATIENTS WITH CHRONIC ATRIAL FIBRILLATION: MALPRACTICE OR ACCURACY?

To the Editor: We read with interest the report of Mendelson and Aronow, recently published in *JAGS*, regarding the underutilization of warfarin in older patients with chronic non-valvular atrial fibrillation at high risk for developing stroke,¹ and we would like to contribute our experience with this topic. Of 672 patients newly admitted to our Acute Care for the Elderly-Medical Unit in a 9-month period, 97 patients were selected because of chronic or recent-onset atrial fibrillation (AF). Seventeen patients had atrial fibrillation of recent onset (>48 hours and <6 months), and 80 had chronic atrial fibrillation (>6 months). Following the recommendations of the most commonly cited trials strictly, all patients potentially needed anticoagulation medication to prevent thromboembolic strokes.^{2,3} However, retrospective analysis of our charts revealed that 21 patients had neither anticoagulation medication nor aspirin (No AC - no ASAC), 49 had only aspirin (ASA), and 27 had warfarin (AC). Characteristics of the patients in the three groups are reported in Table 1. Of 21 patients receiving neither AC nor ASA, four had a diagnosis of active peptic ulcer, three had liver cirrhosis (Child C), three gastric cancer, three cachexia, three anemia secondary to gastrointestinal bleeding, two multiple myeloma, one lung cancer, one ovarian cancer with lung metastasis, and one

hepatocellular carcinoma. These patients also had a significantly lower serum albumin level ($P = .071$) and higher functional impairment on the Barthel Index score ($P = .017$) compared with those receiving treatment.

Among the remaining 76 patients, factors associated with aspirin treatment (49 patients) were age, gender, living alone, cognitive impairment, mood depression, functional impairment in basic activities of daily living and instrumental activities of daily living (IADL), APACHE score, number of diseases, chronic obstructive pulmonary disease, and liver diseases. In a multivariate analysis, associated independently with the prescription of aspirin instead of warfarin were number of diseases ($B = -.054$, $SE B = .022$, $P = .021$), depression (GDS) ($B = -.035$, $SE B = 0.014$, $P = .016$), impairment in three or more IADLs ($B = -.226$, $SE B = .109$, $P = .044$), living alone ($B = -.235$, $SE B = .099$, $P = .021$), and female sex ($B = -.247$, $SE B = .096$, $P = .013$).

Antithrombotic therapy has been shown to reduce the occurrence of ischemic stroke and systemic embolism substantially in patients with AF. However, underuse of this therapy in older subjects is commonly clinically observed. A possible explanation includes the physician's reluctance to treat subjects older than age 80,⁴ but factors contraindicating use of antithrombotic therapy are far from clear. In their report, Mendelson and Aronow observed that only 2% of patients had contraindications to warfarin use, whereas in our experience these percentages are much higher. Furthermore, we found that social as well as clinical factors influence the choice of aspirin rather than anticoagulant drugs. People living alone or with a functional impairment in IADLs are at a disadvantage when carrying out the periodical INR monitoring.

Our findings suggest strongly that both clinical and social factors are barriers to implementation of anticoagulation therapy. Meanwhile, a complete geriatric evaluation assessing conditions potentially related to the adverse effects of anticoagulants remains the practice recommended most in older subjects.

Giuseppe Bellelli
Piera Barbisoni
Annalisa Gusmeri
Tony Sabatini
Renzo Rozzini

Medical Unit for the Acute Care of the Elderly
Poliambulanza Hospital, Brescia, Italy

Marco Trabucchi
Geriatric Research Group Brescia, Italy

Table 1. Characteristics of the 97 Hospitalized Older Patients with Atrial Fibrillation According to Anticoagulant Therapy, Aspirin, or no Therapy

	AC group Mean \pm SD/n n = 27	ASA group Mean \pm SD/n n = 49	No ASA-AC Mean \pm SD/n n = 21
Age	73.4 \pm 9.8	82.7 \pm 6.4	84.6 \pm 6.6
Gender (female)	21	26	17
Living alone	5	21	4
Number of diseases	5.1 \pm 1.7	6.9 \pm 2.1	6.8 \pm 2.1
Charlson Index	2.5 \pm 2.1	3.0 \pm 1.6	4.0 \pm 2.2
Number of drugs	5.0 \pm 1.4	5.3 \pm 1.7	4.6 \pm 2.0
APACHE II score	6.4 \pm 3.6	8.5 \pm 4.4	11.0 \pm 3.9
Serum albumin (mg/dL)	4.1 \pm 0.4	4.0 \pm 0.5	3.6 \pm 0.5
MMSE	24.1 \pm 5.8	19.8 \pm 6.8	16.7 \pm 8.9
GDS (15 items)	3.2 \pm 2.6	5.6 \pm 3.3	6.0 \pm 4.3
BADL (Barthel Index)	86.4 \pm 15.5	72.8 \pm 25.5	52.1 \pm 34.5
IADL (functions lost)	2.7 \pm 2.7	4.7 \pm 2.3	5.1 \pm 2.9

AC = anticoagulant; ASA = aspirin.

REFERENCES

- Mendelson G, Aronow WS. Underutilization of warfarin in older patients with chronic nonvalvular atrial fibrillation at high risk for developing stroke. *J Am Geriatr Soc* 1998;46:1423-1424.
- Atrial Fibrillation Investigators. Atrial Fibrillation, Aspirin, Anticoagulation Study; Boston Area Anticoagulation Trial for Atrial Fibrillation Study; Canadian Atrial Fibrillation Anticoagulation Study; Stroke Prevention in Atrial

Fibrillation Study; Veterans Affairs Stroke Prevention in Nonrheumatic Atrial Fibrillation Study. Risk factors for stroke and efficacy of antithrombotic therapy in atrial fibrillation. Analysis of pooled data from five randomized controlled trials. *Arch Intern Med* 1994;154:1499–1457.

3. Furberg CD, Psaty BM, Manolio TA et al. for the CHS Collaborative Research Group. Prevalence of atrial fibrillation in elderly subjects (the Cardiovascular Health Study). *Am J Cardiol* 1994;74:236–241.
4. Sudlow M, Thomson R, Rodgers H et al. The effect of age and quality of life on doctors' decisions to anticoagulate patients with atrial fibrillation. *Age Ageing* 1998;27:285–289.

BODY-MASS INDEX AND ALL-CAUSE MORTALITY IN OLDER PEOPLE: THE ITALIAN LONGITUDINAL STUDY ON AGING

To the Editor: The association between body-mass index (BMI) and mortality is still controversial. Different studies report a U-shaped,¹ a direct or J-shaped relationship,² an inverse association,³ or a decreased effect with increasing age.⁴ Data available from literature deserve further consideration in regard to the oldest age groups. Some surveys did not include older individuals at baseline^{2,5} or were based on self-reported measures of weight and height.^{1,4} When considering older people, an objective assessment may be necessary to overcome possible bias stemming from self-reported information. We present data on 3121 individuals (1699 aged 65–74, 1422 aged 75–84, 53.3% males) enrolled in the Italian Longitudinal Study on Aging (ILSA). The ILSA is a population survey based on a random national sample and is aimed at evaluating the frequency and natural history of major age-related diseases in the older Italian population.⁶ Height and weight were measured directly by the participating physicians at baseline examination in 1992. The BMI was calculated by dividing the weight in kilograms by the square of the height in meters. Mean BMI was 27.4 (± 4.8) in the age group 65 to 74 and 26.3 (± 4.9) in the age group 75 to 84. All the study subjects were followed-up for a mean period of 3.7 (± 0.8) years, and a total of 11,470 person-years were available for the analysis. Data on vital status were gathered directly from individuals or proxy responders. Death certificates were collected for each individual who had died.

During the follow-up, 416 subjects died. We used the Cox proportional hazard model to assess the association between BMI and mortality from all causes. Education level (completed years of schooling), alcohol and smoking habits, and the ability to perform activities of daily living were included in the model as covariates. Considering mortality in both sexes, the Hazard Ratio (HR) associated with an increment of 1 in the BMI was 0.98 (95% confidence interval, 0.94 to 1.03) for individuals aged 65 to 74 years and 0.95 (95% confidence interval, 0.92 to 0.98) for individuals aged 75 to 84 years. No significant effect was observed for either men (HR, 0.99; 95% confidence interval, 0.93 to 1.05) or women (HR, 0.97; 95% confidence interval, 0.89 to 1.04) of the 65 to 74 age group, whereas the protective effect of BMI was significant in men aged 75 to 84 years (HR, 0.94; 95% confidence interval, 0.89 to 0.98) and of borderline significance in women (HR, 0.97; 95% confidence interval, 0.93 to 1.0) of the same age group.

Our results support the hypothesis of a reduced effect, with increasing age, of greater body weight on survival. This effect may even turn out as protective at older ages, particularly in men. The major strength of our results is the national representativeness of our sample and that data were collected

in recent years with the direct and objective measurement of both height and weight. However, our results apply only to short-term mortality. Because of the dramatic changes in health care and in nutrition attitudes during the last 2 decades, analyses from ongoing longitudinal studies with more recent cohorts are highly recommended to further address this important issue.

Antonio Di Carlo, MD
Marzia Baldereschi, MD
Stefania Maggi, MD
Guglielmo Scarlato, MD
Domenico Inzitari, MD
for the ILSA Working Group
National Research Council of Italy
Targeted Project on Aging, Florence, Italy

REFERENCES

1. Allison DB, Gallagher D, Heo M et al. Body mass index and all-cause mortality among people age 70 and over: The Longitudinal Study on Aging. *Int J Obes Relat Metab Disord* 1997;21:424–431.
2. Manson JE, Willett WC, Stampfer MJ et al. Body weight and mortality among women. *N Engl J Med* 1995;333:677–685.
3. Diehr P, Bild DE, Harris TB et al. Body mass index and mortality in non-smoking older adults: The Cardiovascular Health Study. *Am J Public Health* 1998;88:623–629.
4. Stevens J, Cai J, Pamuk ER et al. The effect of age on the association between body-mass index and mortality. *N Engl J Med* 1998;338:1–7.
5. Seccareccia F, Lanti M, Menotti A, Scanga M, and the RIFLE Research Group. Role of body mass index in the prediction of all cause mortality in over 62,000 men and women. The Italian RIFLE Pooling Project. *J Epidemiol Community Health* 1998;52:20–26.
6. The Italian Longitudinal Study on Aging Working Group. Prevalence of chronic diseases in older Italians: Comparing self-reported and clinical diagnoses. *Int J Epidemiol* 1997;26:995–1002.

REACTIVATION OF OSTEOMYELITIS CAUSED BY STAPHYLOCOCCUS AUREUS AFTER 50 YEARS

To the Editor: Two different patterns of disease relating to the diagnosis of chronic osteomyelitis are described in the literature. The first is of symptomatic infection of 5- to 7-weeks duration, occasionally characterized by fistulisation persisting for years, with local inflammatory signs. The second is an osteomyelitis relapsing after a long asymptomatic period.^{1,2} We describe the case of an old man who presents with reactivation of osteomyelitis after 50 years.

Mr. G., a 73-year-old retired garage owner, diabetic but in good everyday health, is referred by his daughter because of decreased short-term memory. During the clinical interview, he complains of painful swelling of the right thigh, worsening over the past 2 months, without fever or chills; the pain is accentuated while walking and disappears on resting. He recalls having been treated with a sulfonamide (Cibazol[®]) in 1946 for osteomyelitis of the right femur, followed by rapid improvement and apparently complete healing.

The clinical examination shows an afebrile patient with a large inflammatory swelling infiltrating the musculature of the middle third of the right thigh. The laboratory tests reveal an ESR of 70 mm/h, WCC of 10.4, Hg of 13.3 g/dL, an increase in α 2-Globulin, normal Ca and P, but an alkaline phosphatase at 119 U/l. The X-ray of the right femur shows a deformity with increased cortical thickness in the middle