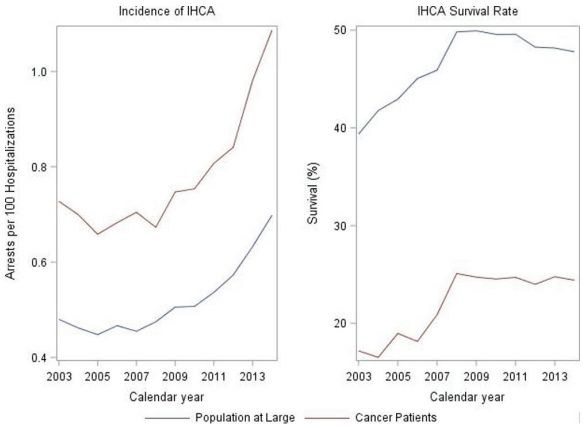
cancer patients who sustained IHCA was 22.1% compared to 46.4% in the population at large (p<0.0001; figure) and the utilization of peri-IHCA procedures was lower among those with cancer.



IHCA incidence and survival

Conclusions: Over the last decade the incidence of U.S. IHCAs has increased. However, the diagnosis of cancer is associated with more frequent IHCA events, lower peri-IHCA procedural utilization rates, and lower survival to discharge.

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Embolic and bleeding events related with atrial fibrillation in oncologic patients. A multicenter case-control study

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Introduction: Atrial fibrillation (AF) is more prevalent in oncologic patients. Cancer and cancer therapies are a risk factor for developing AF, and an unpredictable response to vitamin K antagonist (VKA) is frequent. Cancer causes a prothrombotic state while there might be a higher predisposition to bleeding. Balance between thromboembolic and bleeding risks of AF in these patients is particularly challenging. Using a multicenter prospective registry of female patients with atrial fibrillation with and without breast cancer we aimed to compare the incidence of ischemic and bleeding complications during follow-up that might require a specific care for patients with cancer.
Methods: Observational prospective study of 9 tertiary hospitals. 465 patients were enrolled: 312 with AF & breast cancer (cases) and 153 with AF without cancer (controls). Clinical and therapeutic parameters were recorded, including ischemic and bleeding risk scores (CHA2DS2VASc, HASBLED, ATRIA, SAMETT2R2 and HEMORR2HAGES). Antithrombotic drug usage with VKAs, direct oral anticoagulants (DOACs), low molecular weight heparin (LMWH) or antiaggregation was monitored during follow-up.
We evaluated the onset of embolic events (stroke, pulmonary and systemic embolism) and bleeding events (intracranial hemorrhage, gastrointestinal bleeding, epistaxis, anemia with a decrease of >2g/dL of haemoglobin, or requiring blood transfusion). Kaplan-Meier and Cox survival analysis were used to predict long-term embolic and bleeding risk.
Results: The mean age at the beginning was 73.86±14,16 year-old, mean follow-up 3.51±3.1 years. Both groups were similar in age, all the risk scores calculated, except HEMORR2HAGES (2.7±1.3 in cancer group Vs 1.83±1.3 in controls, p=0.001), prevalence of hypertension, personal history of stroke. The cancer group had more frequently hepatic failure (11.9% Vs 2% in controls, p=0.001). A 97.4% of the sample had criterion for anticoagulation in both groups (CHA2DSVASc2≥2). AVK was the initial treatment in 60.6% of the cancer group Vs 61% of the controls, DOAC in 16% of the cancer group Vs 25.3% in controls (p=0.004), LMWH in 7.1% of the cancer group Vs 1.1% of the controls (p=0.003), and antiagreggation in 10.3% of the cancer group and 9.3% of the controls. 6% of the cancer group and 2.7% of controls were without antithrombotic therapy (p=0.03).
An 11% of the cancer group presented any embolic event Vs 13.2% of the group without cancer (Log Rank 0.71, p=0.72). 15.9% of the patients with breast cancer presented any hemorrhagic event Vs 18.2% of the controls (Log Rank 0.73, p=0.74). K-M survival function for embolic and bleeding events is shown.
Conclusions: In patients with atrial fibrillation and similar risk profile, the presence of breast cancer did not increase the risk of ischemic or hemorrhagic events during follow-up.

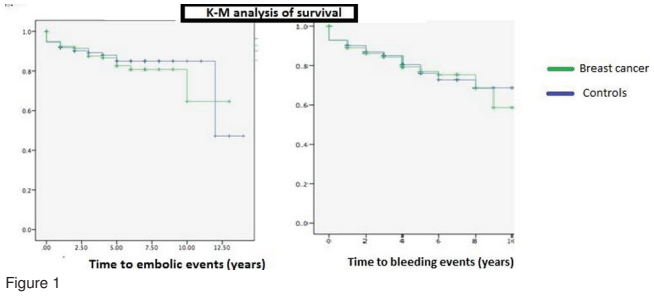

Figure 1

STROKE – FROM RISK PREDICTION TO THERAPY

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A novel model for prediction of ischemic stroke in patients without atrial fibrillation

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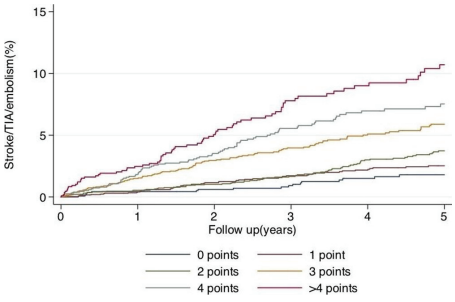
Introduction: Patients diagnosed with atrial fibrillation (AF) are candidates for oral anticoagulant treatment if their annual risk of stroke is above approximately 1% assessed by the CHA2DS2-VASc score. However, most patients suffering stroke, have no diagnosis of AF prior to their stroke.
Purpose: To construct a risk prediction model for identification of patients at high risk of stroke and systemic embolism among patients without a diagnosis of AF, with no prior stroke, which may be useful for the decision making on primary thromboprophylaxis.
Methods: Using national registries, we cross-linked data on patients undergoing coronary angiography to identify 72,381 patients without AF, prior stroke, or any anticoagulant treatment. The cohort was randomly divided into two groups; a training cohort (80%, n=57,680) and a validation cohort (20%, n=14,701). We used a composite endpoint of thromboembolic events including ischemic stroke, transient ischemic attack (TIA) and, systemic embolism. Considered covariates were first analysed by univariate analyses in the training cohort. All variables adding risk in stroke development (p<0.20) were afterwards included in a multivariate analysis. We performed interaction analyses before assigning points to the covariates in the final model.
Results: In the final model, the following variables are assigned one point: congestive heart failure, hypertension, diabetes mellitus, renal disease, age 65–74 years, active smoking, and obstructive coronary artery disease in ≥2 coronary arteries; while two points were assigned to age ≥75 years and vascular disease (including peripheral artery disease and aortic plaque). An increasing score was associated with an incremental risk of stroke (Figure) and patients with a score of 4 had an annual stroke risk of 1.70%. The predictive value of this score was evident with a c-index of 0.66.



Conclusion: The risk of stroke among patients without AF, and with no prior stroke, undergoing coronary angiography can be predicted by this novel prediction model. A score of 4 points was associated with a risk that exceeds that level where thromboprophylaxis is recommended in patients with AF.
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