

## **Preventive tamoxifen (TAM) after ductal carcinoma in situ (DCIS) diagnosis according to age and ethnicity**

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### **INTRODUCTION**

The primary aim in the management of DCIS is the prevention of ipsilateral and contralateral invasive tumors. African Americans (AA) and younger age experience a higher incidence of disease recurrence and worse overall survival. The use of endocrine treatment significantly reduces recurrence rate and contralateral disease in hormone receptor positive (HR+) DCIS, but with significant costs and side effects. We analyzed the efficacy of preventive TAM and outcome according to age and ethnicity in DCIS patients.

### **METHODS**

In the Thomas Jefferson University Tumor Registry, we identified 341 patients with ER and/or PR positive DCIS or microinvasive carcinoma treated between 2008 and 2013. Associations between recurrence and use of preventive TAM were assessed according to patient age and ethnicity.

### **RESULTS**

Of 341 HR+ tumors, 289 were DCIS and 30 microinvasive carcinoma. Moreover, 222 (65.1%) patients were white (211 Caucasian, 5 Hispanic and 6 unknown), 109 (32%) non-white (82 AA and 27 Asian) and 10 (2.9%) unknown. Median age was 60 years (range 34-92); 183 (53.7%) patients were aged less than 60 and 158 (46.3%) over 61. Preventive TAM was administered to 139 (31.2%) patients. After a median follow-up of 2.77 years (range 0-5.65), 19 patients developed recurrence, 17 of which were in situ. Patients treated with TAM were less likely to developed recurrence (HR 0.30, p 0.0578). Hazard of recurrence was higher within non-white (HR 0.38) than white (HR 0.20), even if it did not reach significance (p 0.628). Similarly, hazard of recurrence was not significantly different between age groups (p 0.459) but the hazards ratio within the younger (HR 0.56) was higher than older patients (HR 0.20).

### **CONCLUSION**

Our analysis confirms that TAM reduces recurrence rates in DCIS. The small recurrence rate in our sample can explain the only marginally significant p-values. Even if the effect of TAM is not significantly different among age and ethnic groups, a greater impact in white and older patients was identified. This underlines the need for a widely use of preventive endocrine treatment in these subgroups and suggests that, despite the HR+, non-white and younger patients may have a more aggressive disease biology requiring future evaluation of novel prognostic molecular biomarkers.