3.75 [1.04–13.4]) and negative sexuality impact (OR: 1.87 [1.34–2.61]).

Conclusions Breast cancer impacts on self-confidence, future life perception and sexuality of young adult Tunisian who need personalized psychological care.

**EP036/#1050**
**ECONOMIC CHALLENGES FACED BY YOUNG ADULT TUNISIAN PATIENTS FOLLOWING BREAST CANCER**
Ahmad Anas Haouari, Yosra Bernazaga, Sofiene Fendri, Haïfa Rachdi*, Myriam Saadi, Nouha Daoud, Neurine Mejri, Hamouda Boussen. Abderrahmen Mami Hospital, Faculty of Medicine of Tunis; University Tunis Manar, Medical Oncology, ariana, Tunisia

10.1136/ijgc-2022-igcs.127

**Objectives** Young adult Tunisian patients treated for breast cancer are confronting, in addition to disease, its financial impact. We aim to investigate socioeconomic profiles and financial challenges of young adult patients in the Tunisian context.

**Methods** Patients aged 20 to 40 years treated for breast cancer regardless of stage (n=62) were asked to complete a questionnaire in April 2022. The survey included items about: socioeconomic conditions and future life projects.

**Results** Mean age was 35 years old [26–40]. Eight patients (12%) were under 30. Thirty-four patients (54%) had high educational level. Thirty-six patients (58%) had job. Twenty-seven patients (43%) lost their jobs because of sick leaves and 19 patients (30%) found difficulties to get job when announcing disease to employers. Twenty-four patients (38%) were economically dependent on their husbands and 12 patients (19%) to their parents. Thirty-six patients (58%) reported financial difficulties. Immigration intention to developed countries was reported by 25 patients (40%) mostly seen in patients under 30 years old (OR: 0.18 [0.03–0.98]), with high educational level (OR: 4.64 [1.5–14.3]) and following current treatment (OR: 0.29 [0.09–0.9]) because mostly of better health system and financial support (61.5%).

**Conclusions** Tunisian young adult patients following breast cancer are facing economic and social difficulties that must be considered on the same level as others sides of health care.

**EP037/#733**
**THE EFFECT OF 7-KETOCHOLESTEROL ON BREAST CARCINOMA CELL LINES TREATED WITH TAMOXIFEN IN VITRO**

1,2Alzbeta Spalenkova*, 2,3Marie Ehrlichova, 2,Karolinka Seborova, 2,3Radka Voslavikova, 2,3Stepan Balatka, 2,3Pavel Soucek. 1,2Charles University, Third Faculty of Medicine, Prague; Czech Republic; 1Biomedical Center, Laboratory of Pharmacogenomics, Pilsen; Czech Republic; 2National Institute of Public Health, Toxicogenomics Unit, Prague; Czech Republic

10.1136/ijgc-2022-igcs.128

**Objectives** Oxysterols are oxidative derivatives of cholesterol that play many roles in human physiology and pathology, including cancer. For example, oxysterols modulate cell proliferation, apoptosis, or migration. This study aimed to analyze the role of important oxysterol, 7-ketocholesterol (7-KC), in response of breast carcinoma cell line models to treatment with tamoxifen.

**Methods** Two estrogen receptor (ER) positive (MCF-7 and T47D) and one ER-negative (BT-20) breast carcinoma cell lines were employed. Cell lines were co-incubated with tamoxifen and 7-KC at different concentration ratios, and the viability of cells, proliferation, cell cycle, caspase activity, and gene expression changes were evaluated. Next, the ability of 7-KC to stimulate cell migration and invasivity was tested.

**Results** 7-KC slightly increased the IC50 value of tamoxifen in the MCF7 cell line, but decreased it in the BT-20 cell line. No significant difference was observed for T47D cells. In line with these data, caspase 3/7 activity was enhanced by 7-KC in BT-20 cells, but not in any ER-positive cell line. Gene expression analysis showed upregulation of tamoxifen metabolizing genes, e.g. CYP1A1 and CYP1B1 in MCF-7 while downregulation in BT-20 cells. Finally, we found that the presence of 7-KC potentiates cellular migration and invasivity.

**Conclusions** 7-KC seems to modulate the response of breast carcinoma cells to tamoxifen according to ER status in vitro, making it an interesting candidate for future studies. The study was supported by projects INTER-ACTION no. LTAUSA19032 and AZV no. NU20–09–00174.