

Lorusso & Foderé Volumen 1 Nro 2

Hormone therapy after prophylactic risk-reducing bilateral salpingo-oophorectomy in women who have BRCA gene mutation. Guidozzi, F. **CLIMATERIC** Vol. 19 Nr. 5 Página: 419 - 22 Fecha de publicación: 01/10/2016

only breast and ovarian cancers, but also for primary peritoneal, Fallopian tube, colonic, pancreatic cancers, uterine papillary serous adenocarcinoma and malignant melanoma. The risk for ovarian cancer ranges from 39 to 49% by 70 years of age in BRCA1 mutation carriers and from 11 to 18% either the BRCA1 mutation or the BRCA2 mutation, from about 20% in women in their forties, or use of chemopreventative agents. RRBSO will result in significant menopausal symptoms, increased risk for bone mineral loss, increasing risk for osteopenia and osteoporosis, and cognitive men less than 50 years of age. This article analyzes the role of RRBSO in women with BRCA1/

Women with a BRCA1 or BRCA2 gene mutation have substantially higher risk for developing not

for those with a BRCA2 mutation, whilst breast cancer increases similarly within women who have 37% by the age of 50 years, 55% by 60 years and more than 70% by the age of 70 years. Prophylactic risk-reducing bilateral salpingo-oophorectomy (RRBSO) provides significantly greater benefits with the view of reducing the risk for gynecological and breast cancer (decreasing ovarian cancer risk by 85-95%, breast cancer risk by about 53-68% and removes occult or undetected cancers in 2-18% of such women) compared to other conservative options, namely screening/surveillance dysfunction. Risk for cardiovascular disease is also increased if the procedure is performed in wo-BRCA2 mutations with no personal history of breast cancer and the impact of hormone therapy on risk for breast and gynecological cancers if used after the procedure to alleviate the resulting menopausal symptoms.

Alzheimer's disease, menopause and the impact of the estrogenic environment. Pines, A.

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Decades ago, postmenopausal hormone replacement was considered the panacea for midlife women. Prevention of the age-related cognitive decline was among the top alleged benefits of this therapy. However, the data from the Women's Health Initiative Memory Study (WHI-WHIMS) study showed the opposite, indicating worsening of several cognitive domains in hormone users. Since WHIMS recruited women who were 65 years or older, it became crucial to investigate the effects of hormone therapy in the early menopause as well. Recent studies, such as WHIMS-Young, the Kronos Early Estrogen Prevention Study and the Early versus Late Intervention Trial with Estradiol targeted the younger women, and indeed showed that hormone therapy may have positive cognitive outcomes in this age group. Whether or not hormone therapy has an effect on already demented women remains to be further explored, as data are scarce.

Comparison of combined low-dose hormone therapy vs. tibolone in the prevention of bone Kalder, M.; Kyvernitakis, I.; Hars, O.; Kauka, A.; Hadji, P. CLIMATERIC Vol. 19 Nr. 5 Página: 471 - 7 Fecha de publicación: 01/10/2016 OBJECTIVES: To compare the effects on bone mineral density (BMD) measured by dual-energy X-ray absorptiometry at the lumbar spine, the femoral neck and the total hip following 2 years of treatment with a low-dose combined hormone therapy (HT) comprised of 1 mg estradiol and 0.5 mg norethisterone acetate (E2/NETA) versus 2.5 mg tibolone in postmenopausal women. Additionally, quantitative ultrasonometry (QUS) of the os calcaneus and of the phalanges was performed. METHODS: Changes in BMD, QUS and side-effects were assessed at baseline, 6, 12 and 24 months in 50 postmenopausal women who received either E2/NETA (n = 26) or tibolone (n = 24)

for 2 years. RESULTS: Compared to women on tibolone, women receiving E2/NETA showed a significant increase in BMD from baseline to 12 and 24 months at the lumbar spine (3.07%, 3.86%; p < 0.01 vs. 1.13%, 2.23%; p < 0.05), and at the total hip (1.33%, 1.69%; p < 0.01 vs. 0.76%, 0.70%) and at the femoral neck from baseline to 24 months (1.10%; p < 0.05). QUS indices only showed a significant change with the ultrasound bone profile index with E2/NETA at 6 months (-2.32%; p < 0.001). CONCLUSIONS: Low-dose E2/NETA showed a significantly higher increase in BMD compared to tibolone. QUS measurement was not considered to comprise beneficial effects in monitoring drug-induced bone changes. Effects on bone and quality of life in European postmenopausal women: a pooled analysis. Hadıı, P.; Ryan, CLIMATERIC

OBJECTIVES: To evaluate the efficacy of conjugated estrogens/bazedoxifene (CE/BZA) on bone mineral density (BMD), bone turnover markers (BTM), and menopause-specific quality of life (MENQOL) in European women. METHODS: Data through 12 months were pooled from two double-blind, randomized, controlled trials in non-hysterectomized postmenopausal women who received CE/BZA or placebo. Women from European study sites with evaluable BMD (n = 60), BTM (n = 56), and MENQOL questionnaire (n = 236) data were included and compared with 1523 women from US study sites (n = 730 with evaluable data for bone outcomes). RESULTS: At month 12, CE 0.45 mg/BZA 20 mg and CE 0.625 mg/BZA 20 mg, respectively, significantly improved BMD (adjusted difference vs. placebo) in lumbar spine (2.5%, 2.9%; both p = 0.011) and total hip (1.7%, 2.2%, both p = 0.002), significantly improved serum BTMs (osteocalcin: -31.1%, -33.1%; C-telopeptide: -48.5%, -36.8%) vs. placebo (osteocalcin: 6.7%, C-telopeptide: 4.2%; all p < 0.001), and significantly improved MENQOL vasomotor function scores (-2.1, -2.2) vs. placebo (-0.7; both p < 0.001). No significant treatment \times subpopulation interactions were observed for any

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Resumen:

improved vasomotor function in European postmenopausal women. Findings were similar to those in the subpopulation of women enrolled at US study sites. Influence of estrogen therapy on immune markers in postmenopausal women. Itaborahy, R.M.; de Medeiros, S.F. CLIMATERIC Vol. 19 Nr. 5 Página: 496 - 500 Fecha de publicación: 01/10/2016

OBJECTIVE: To evaluate the impact of estrogen therapy on cellular and humoral immune markers in postmenopausal women. METHODS: This prospective, controlled cohort study included 30 patients who used oral estradiol (1 mg) for 14-17 weeks and 28 patients who served as controls. Total leukocytes and leukocyte subtypes were counted and immunophenotyped by flow cytometry. The concentrations of immunoglobulins and pro- and anti-inflammatory cytokines were also measured in the peripheral blood before and after estrogen therapy. Immunoglobulin E level was measured by

of the outcomes. CONCLUSIONS: Twelve-month CE/BZA treatment prevented bone loss and

electrochemiluminescence, and levels of immunoglobulins A, G, and M were measured by nephelometry. Simultaneous quantification of multiple cytokines was performed by chemiluminescence to measure the serum concentrations of interferon gamma, interleukin (IL)-4, IL-6, IL-10, and IL -17. RESULTS: Hematological cellular components were not significantly different before and after the use of estradiol (p = 0.332-0.984). Serum concentrations of immunoglobulins G, M, E, and A also remained stable (p = 0.248-0.845). Finally, cytokines were not modified throughout the 14-17 weeks of follow-up (p = 0.407-0.873). CONCLUSION: Isolated estrogen therapy with 1 mg of estradiol for 14-17 weeks in postmenopausal women did not modify any of the cellular or humoral immune markers analyzed in this study. The effect of microablative fractional CO2 laser on vaginal flora of postmenopausal women. Athanasiou, S.; Pitsouni, E.; Antonopoulou, S.; Zacharakis, D.; Salvatore, S.; Falagas, M.E.; Grigoriadis, T. CLIMATERIC Vol. 19 Nr. 5 Página: 512 - 8 Fecha de publicación: 01/10/2016 OBJECTIVES: To assess the effect of microablative fractional CO2 laser (MFCO2-Laser) therapy on the vaginal microenvironment of postmenopausal women. METHODS: Three laser therapies at

monthly intervals were applied in postmenopausal women with moderate to severe symptoms of genitourinary syndrome of menopause, pH of vaginal fluid >4.5 and superficial epithelial cells on vaginal smear <5%. Vaginal fluid pH values, fresh wet mount microscopy, Gram stain and aerobic and anaerobic cultures were evaluated at baseline and 1 month after each subsequent therapy. Nugent score and Hay-Ison criteria were used to evaluate vaginal flora. RESULTS: Fifty-three women (mean age 57.2 ± 5.4 years) participated and completed this study. MFCO2-Laser therapy increased Lactobacillus (p < 0.001) and normal flora (p < 0.001) after the completion of the therapeutic protocol, which decreased vaginal pH from a mean of 5.5 ± 0.8 (initial value) to 4.7 ± 0.5 (p < 0.001). The prevalence of Lactobacillus changed from 30% initially to 79% after the last treatment. Clinical signs and symptoms of bacterial vaginosis, aerobic vaginitis or candidiasis did not appear in any participant. CONCLUSION: MFCO2-Laser therapy is a promising treatment for improving the vaginal health of postmenopausal women by helping repopulate the vagina with normally exis-

ting Lactobacillus species and reconstituting the normal flora to premenopausal status.

The impact of micronized progesterone on the endometrium: a systematic review. Stute, P.; Neulen, J.; Wildt, L. **CLIMATERIC** Vol. 19 Nr. 4 Página: 316 - 328 Fecha de publicación: 01/08/2016 Postmenopausal women with an intact uterus using estrogen therapy should receive a progestogen for endometrial protection. International guidelines on menopausal hormone therapy (MHT) do not specify on progestogen type, dosage, route of application and duration of safe use. At the same time, the debate on bioidentical hormones including micronized progesterone increases. Based on a systematic literature review on micronized progesterone for endometrial protection, an international expert panel's recommendations on MHT containing micronized progesterone are as follows: (1) oral micronized progesterone provides endometrial protection if applied sequentially for 12-14 days/month at 200 mg/day for up to 5 years; (2) vaginal micronized progesterone may provide endometrial protection if applied sequentially for at least 10 days/month at 4% (45 mg/day) or every other day at 100 mg/day for up to 3-5 years (off-label use); (3) transdermal micronized progesterone does not provide endometrial protection. Cardiovascular risk assessment in women - an update. Collins, P.; Webb, C.M.; de Villiers, T.J.; Stevenson, J.C.; Panay, N.; Baber, R.J. CLIMATERIC Vol. 19 Nr. 4 Página: 329 - 336 Fecha de publicación: 01/08/2016

Cardiovascular disease is the leading cause of morbidity and mortality in postmenopausal women. Although it is a disease of aging, vascular disease initiates much earlier in life. Thus, there is a need to be aware of the potential to prevent the development of the disease from an early age and continue this surveillance throughout life. The menopausal period and early menopause present an ideal opportunity to assess cardiovascular risk and plan accordingly. Generally in this period, women will be seen by primary health-care professionals and non-cardiovascular specialists. This review addresses female-specific risk factors that may contribute to the potential development of cardiovascular disease. It is important for all health-care professionals dealing with women in midlife and

beyond to be cognisant of these risk factors and to initiate female-specific preventative measures or to refer to a cardiovascular specialist. Drospirenone plus estradiol and the risk of serious cardiovascular events in postmenopausal Dinger, J.; Bardenheuer, K.; Heinemann, K. CLIMATERIC Vol. 19 Nr. 4 Página: 349 - 356 Fecha de publicación: 01/08/2016 OBJECTIVES: To compare incidence rates of serious cardiovascular events, particularly arterial thromboembolic events (ATE), in users of hormone replacement therapy (HRT), particularly oral continuous combined preparations. METHODS: Prospective, controlled cohort study with four arms: women using (1) drospirenone (DRSP)/estradiol, (2) other oral continuous combined HRT (HRTcc), (3) all other oral HRTs, and (4) non-oral HRT. The study population consisted of women aged 40+ years in seven European countries who were new users of HRT at the time of inclusion. All patient-reported outcomes of interest were validated by the treating physicians. A multifaceted, four-level follow-up procedure ensured low loss to follow-up rates. The final analysis is based on Cox regression models comparing the cohorts. RESULTS: In total, 30 597 women were recruited by 1052 study centers. Follow-up reflects 101 715 woman-years of observation. Loss to follow-up was about 2.8%. Risk estimates for general serious adverse events were similar for all cohorts. Incidence rates for serious cardiovascular events were 98.4 (DRSP/estradiol) and 169.7 (HRTcc) per 10 000 woman-years. The corresponding incidence rates for ATE were 10.9 and 29.7 events per 10 000 woman-years with an adjusted hazard ratio of 0.5 (95% confidence interval 0.3-0.8). The initiation rate for antihypertensive treatment after start of HRT was substantially lower for women

using DRSP/estradiol compared to the other cohorts. CONCLUSIONS: DRSP/estradiol is associated with general health risks similar to other oral and non-oral HRT but is probably associated with lower ATE risk. CLINICAL TRIAL REGISTRATION: NCT00214903, US National Library of

Impact of pedometer-based walking on menopausal women's sleep quality: a randomized

Objective Sleep disturbances are one of the most common psycho-physiological issues among postmenopausal women. This study was designed to evaluate the impact of walking with a pedometer on the sleep quality of postmenopausal Iranian women. Methods This randomized, controlled trial was conducted on 112 women who were randomly assigned to two groups. The women in the intervention group (n = 56) were asked to walk with a pedometer each day for 12 weeks and to increase their walking distance by 500 steps per week. A sociodemographic instrument and the Pittsburgh Sleep Quality Index were used to collect data. Sleep quality was measured at baseline, 4, 8, and 12 weeks after intervention. The control group (n = 56) did not receive any intervention. Results After 12 weeks, subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbances, use of sleeping medication, and daytime dysfunction improved to a significantly greater extent in the intervention group than in the control group (p < 0.05). The total sleep quality score was significantly higher in the intervention group than in the control group (0.64 vs. 0.98, p = 0.001). Conclusion This study showed that walking with a pedometer is an easy and costeffective way to improve the quality of sleep among postmenopausal women. Use of this method in

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controlled trial.

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su relación con ERK5.

tratamiento o evitar la aparición de resistencia.

crecimiento y proliferación de las células cancerosas.

viceversa) y la respuesta de las células tumorales al tratamiento.

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Tadayon, M.; Abedi, P.; Farshadbakht, F.

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public health centers is recommended. Factors determining the use of hormonal therapy and phytotherapy in Spanish postmenopausal women. Mendoza, N.; Hernández, C.; Cornellana, M.J.; Carballo, A.; Llaneza, P.; Harvey, X.; Palacios, S. CLIMATERIC Vol. 19 Nr. 4 Página: 375 - 380 Fecha de publicación: 01/08/2016 OBJECTIVE: To identify women's sociodemographic and variables related to health care with the prescription of hormonal therapy (HT) and phytotherapy (PT) in Spanish postmenopausal women. METHOD: The survey consisted of a multicenter, observational, cross-sectional, questionnairebased investigation and was conducted among 3022 postmenopausal women. RESULTS: Of all the women, 31.8% reported the use of systemic HT or PT sometime in their lives. Hot flushes and in-

formation received about menopause were the most important variables that influence HT and PT use, although far more intense symptoms were observed in those who were inclined to use HT. The use of HT or PT was more frequently reported among women with high levels of education, who came from private clinics and lived in urban areas. Women who had primary ovarian insufficiency or surgical menopause were inclined to use HT. CONCLUSION: Hot flushes and information re-

Does the menopausal status of female gynecologists affect their prescription of menopausal

Vallejo, M.S.; Witis, S.; Ojeda, E.; Mostajo, D.; Morera, F.; Meruvia, N.; Martino, M.; Lima, S.; Espinoza, M.T.; Castillo, O.; Campostrini, B.; Danckers, L.; Blümel, J.E.; Tserotas, K.; Sánchez, H.; Salinas, C.; Saavedra, J.; Rojas, J.A.; Onatra, W.; Monterrosa, A.; Montaño, A.; Martínez, J.; González, E.; Gómez, G.; Calle, A.; Broutin, G.; Bencosme, A.; Arteaga, E.; Ayala, F.; Chedraui,

OBJECTIVE: To evaluate whether menopausal status and symptoms among female gynecologists would influence their clinical behavior related to menopausal hormone therapy (MHT). MET-HODS: Female gynecologists of 11 Latin American countries were requested to fill out the Menopause Rating Scale and a questionnaire containing personal information and that related to MHT use. RESULTS: A total of 818 gynecologists accepted to participate (86.4%). Overall, the mean age was 45.0 ± 10.7 years, 32.2% were postmenopausal, and 17.6% worked in an academic position; 81.8% reported that they would use MHT if they have symptoms, regardless of menopausal status. Academic gynecologists favor personal MHT use at a higher rate (p = 0.04) and have a higher MHT prescription rate as compared to non-academic ones (p = 0.0001). The same trend was observed among post- as compared to premenopausal ones (p = 0.01) and among those who had hysterectomy alone as compared to those experiencing natural menopause (p = 0.002). The presence of menopausal symptoms did not influence their MHT prescription. Current use of MHT and alternative therapy was higher among post- than premenopausal gynecologists (both, p = 0.0001) and among those who had undergone hysterectomy than those experiencing natural menopause. A 38.5% perceived breast cancer as the main risk related to MHT, and a high proportion prescribed non-hormonal drugs (86.4%) or alternative therapies (84.5%). CONCLUSION: Most female gynecologists in this survey would use MHT if menopausal symptoms were present. Postmenopausal physicians use MHT and prescribe it to their symptomatic patients at a higher rate than premeno-

The intensity of menopausal symptoms is associated with episodic memory in postmenopau-

Triantafyllou, N.; Armeni, E.; Christidi, F.; Rizos, D.; Kaparos, G.; Palaiologou, A.; Augoulea, A.;

ceived about menopause are the most important variables that influence HT and PT use.

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Alexandrou, A.; Zalonis, I.; Tzivgoulis, G.; Lambrinoudaki, I.

CLIMATERIC Vol. 19 Nr. 4 Página: 393 - 399 Fecha de publicación: 01/08/2016 OBJECTIVE: The adaptation of the brain to aging is subject to the impact of psychological and environmental factors and possibly climacteric symptomatology. We aimed to determine the association of climacteric symptomatology with different aspects of episodic memory in a sample of Greek menopausal women. METHODS: This cross-sectional study included 39 postmenopausal women with subjective memory complaints. Memory performance was evaluated using the Hopkins Verbal Learning Test (HVLT) and the revised Brief Visuospatial Memory Test (BVMT), assessing verbal and visuospatial episodic memory, respectively. We evaluated general cognitive status using the Mini-Mental State Examination (MMSE) and the Clock Drawing Test. Menopausal symptoms were assessed using Greene's Climacteric scale. RESULTS: In the multivariate approach, vasomotor symptoms predicted independently HVLT (retained percentage and delayed recall: b-coefficient = -0.568, p = 0.009 and b-coefficient = -0.563, p = 0.012, respectively). Psychological symptoms predicted independently MMSE (b-coefficient = -0.391, p = 0.024); and in combination with free estrogens (logFEI), psychological symptoms predicted BVMT (total and delayed recall: b -coefficient = -0.558, p = 0.001 and b-coefficient = -0.474, p = 0.005) and HVLT discrimination index (b-coefficient = -0.390, p = 0.023). Combined symptomatology predicted independently MMSE (b-coefficient = -0.457, p = 0.006) and HVLT total (b-coefficient = -0.557, p = 0.034); combined symptomatology predicted in combination with logFEI scores of BVMT total (bcoefficient = -0.593, p < 0.001), BVMT delayed recall (b-coefficient = -0.492, p = 0.002). CON-CLUSION: The intensity of psychological, vasomotor and combined climacteric symptoms predicted cognitive performance in this sample of postmenopausal women. A differential contribution of vasomotor symptoms to episodic memory is described, with the negative impact being more pronounced in visuospatial rather than verbal episodic memory. Genética y Cáncer: Publicación destacada: El gen XPO1 y la resistencia al tamoxifeno en pacientes con cáncer de mama 29 DE SEPTIEMBRE DE 2016 Un 70% de los casos de cáncer de mama son positivos para el receptor de estrógenos. Un estudio plantea la utilización combinada de tamoxifeno e inhibidores del del gen XPO1 para evitar la recurrencia tumoral. Carcinoma de mama.

Investigadores de la Universidad de Illinois acaban de encontrar que los niveles altos del gen XPO1 indican si un paciente está en riesgo a presentar resistencia al tratamiento con un conocido fármaco

Aproximadamente un 70% de casos de cáncer de mama son positivos para el receptor de estrógenos. En la actualidad, este tipo de cáncer suele estar asociado a un mejor pronóstico. No obstante, las terapias endocrinas disponibles muestran un efecto limitado, puesto que en un 30% de las pacientes se produce recurrencia del tumor, lo que empeora las perspectivas para las pacientes (la mayor parte de las muertes por cáncer de mama se producen en estos casos de cáncer recurrentes). Esta situación hace necesario el diseño de nuevas aproximaciones para actuar contra el cáncer, mejorar la capacidad para detectar si una paciente concreta presenta riesgo a desarrollar resistencia al

El tamoxifeno es un fármaco comúnmente utilizado como tratamiento complementario en el cáncer de mama positivo para el receptor de estrógenos. El tamoxifeno actúa como modulador de este receptor en las células tumorales, evitando su activación ante la presencia de estrógenos y con ello el

En estudios previos, los investigadores habían demostrado que el receptor de estrógenos interviene en la activación y regulación de ERK5, una proteína quinasa que regula la capacidad de invasión de las células tumorales circulantes facilitando la comunicación de las señales del exterior de la célula al interior del núcleo. Además, el bloqueo del receptor de estrógenos con inhibidores frenaba el transporte de ERK5 al núcleo. El equipo planteó entonces que podría haber una relación entre aquellas rutas moleculares implicadas en el transporte de factores desde el citoplasma al núcleo (y

Apoyando esta teoría, los investigadores observaron que la localización nuclear de la proteína ERK5 se reduce durante el desarrollo de la resistencia al tamoxifeno, por lo que decidieron estudiar en profundidad los genes relacionados con el transporte molecular hacia y desde el núcleo celular y

El equipo analizó la expresión de genes relacionados con el transporte de moléculas hacia y desde el núcleo celular y combinó esa información con la disponible de bases de datos de tumores de mama. De este modo crearon una lista de 13 genes relacionados con el transporte nuclear relevantes

clínicamente para los pacientes. La elevada expresión de los 13 genes tenía valor predictivo respecto a una menor supervivencia de los pacientes y mayor recurrencia tumoral. Uno de los genes, XPO1, destacaba especialmente por ser el único cuya elevada expresión estaba asociada a ambas características, la peor supervivencia y la mayor recurrencia del tumor. A partir de diferentes experimentos con cultivo de células de cáncer de mama, los investigadores encontraron que XPO1 regula la localización de ERK5 dentro de la célula. Además, el aumento de la expresión del gen está relacionado con la aparición de células resistentes al tamoxifeno. Por último, observaron que cuando XPO1 es inhibido, las células resistentes al tamoxifeno recuperan la sensibilidad al tratamiento lo que plantea posibles aproximaciones terapéuticas para las pacientes con tumores de mama positivos para el receptor de estrógenos.

El equipo propone un modelo según el cual conforme los tumores positivos para el receptor de estrógenos adquieren resistencia al tamoxifeno, un grupo de proteínas implicadas en el transporte nuclear aumentan su expresión, lo que lleva al aumento de la exportación de ERK5 desde el núcleo. Esto hace por una parte que el receptor de estrógenos no pueda responder al tamoxifeno y por otra que ERK5 permanezca en el citoplasma y se una a otras proteínas para contribuir a la tumorigenicidad y la resistencia al tamoxifeno. Los resultados del trabajo señalan por primera vez a la ruta de transporte nuclear como implicada en cáncer y resaltan la importancia de evaluar no sólo la actividad de las proteínas sino también su localización en el contexto del cáncer. Además sugieren que la relocalización de las proteínas como ERK5 al núcleo podría mejorar la respuesta al tamoxifeno. En este sentido, los primeros resultados apuntan a que la inhibición del

"Cuando tratamos aquellos tumores resistentes a tamoxifeno con el inhibidor de XPO1 en combinación con el tamoxifeno, fuimos capaces de bloquear completamente la progresión del tumor," señala Zeynep Madak-Erdogan, directora del trabajo. "Incluso semanas después de que se llevara a cabo el tratamiento, no vimos ninguna recurrencia del tumor."

"Si usamos esta combinación -actuar frente a los receptores de estrógenos con tamoxifeno y sobre XPO1 con el inhibidor selinexor -podemos retrasar el desarrollo de resistencia endocrina, eliminando efectivamente las células tumorales y al mismo tiempo reduciendo la dosis de tamoxifeno El inhibidor de XPO1, selinexor, se encuentra en la actualidad en fase de ensayos clínicos en relación al tratamiento de la leucemia y cáncer de próstata resistente a terapia. De momento, los ensayos indican que se tolera bien y que los efectos secundarios identificados hasta el momento dismi-

transporte del núcleo al citoplasma podrían mejorar la respuesta al tratamiento y retrasar la apari-

Referencia: Wrobel K, et al. ERα-XPO1 crosstalk controls tamoxifen sensitivity in tumors by altering ERK5 cellular localization. Mol Endocrinol. 2016 Aug 17. Doi: 10.1210/me.2016-1101

ción de resistencia y recurrencia. nuyen conforme progresa la terapia.

Fuente: Scientists identify genes that disrupt response to breast cancer treatment. https:// news.illinois.edu/blog/view/6367/404190 Link al trabajo original: http://press.endocrine.org/doi/10.1210/me.2016-1101 ***************************** Si no desea recibir ésta publicación, responda este correo solicitando eliminarlo de nuestra lista de Consultas por mail: lorussoantonio28@hotmail.com & fodere@fodere.com.ar ***********************