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Loss of Y chromosome in Men Tied to Alzheimer's Risk

The findings are based on blood samples from more than 3,200 European men, average age 73. Overall, 17 percent had a detectable loss of Y in some of their blood cells. Men have an X and a Y chromosome, while women have two X chromosomes. What's more, older men with that "loss of Y" faced a higher risk of developing Alzheimer's over the next eight years.

Source: *American Journal of Human Genetics.*

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Medical News

New therapy options bring about changes in stroke care - a study from European Academy of Neurology

There are more well-founded therapy options for the treatment of strokes than ever before. Care has to be re organized before these innovations are actually used on patients. At the Congress of the European Academy of Neurology in Copenhagen, experts were discussed how to do that successfully - from guidelines for the use of thrombectomy procedures all the way to the structure and expansion of stroke care units. Oftentimes, it is precisely the small organizational changes that make the big difference. "The only way to make full use of the potential of these new options is to adjust the structures and processes of stroke care to fit the latest findings. This reorganization must cover the entire chain of care - from the ambulance ride to the precisely defined use of the thrombectomies."

Thrombectomy: new guidelines for application and organization of care:

An increasing number of study results provide evidence of the high degree of effectiveness of thrombectomy, the mechanical removal of blood clots (thrombi) after a stroke. This procedure leads to good results particularly with very long blood clots and large cerebral artery occlusions. More than 60 per cent of patients survive a stroke thanks to this procedure without or with only slight impairment. The relevant European organizations of medical specialists just recently issued a joint therapy recommendation.

Now *The bulletin is available online at: https://pharmacy.ksu.edu.sa/ar/node/1397*

The consensus paper serves, among other things, as orientation regarding the conditions under which the method should be used and on what types of patients. It defines the ideal window of time and clarifies when intravenous thrombolysis and mechanical thrombectomies should be combined.

The new paper is supposed to define, for instance, the organizational and personnel requirements that a neurological center has to meet and how much experience the treating physicians have to bring to the task. The paper is also supposed to describe in great detail how the thrombectomy itself should be performed, from the selection of the suitable instruments to the blood pressure of the patients during the procedure and beyond to post-operative care. Open issues are also supposed to be indicated and efforts made to clarify them through corresponding scientific studies." The guidelines incorporate the collective expertise of six relevant societies, namely the European Academy of Neurology (EAN), the European Association of Neurosurgical Societies (EANS), the European Society of Emergency Medicine (EuSEM), the European Society of Minimally Invasive Neurological Therapy (ESMINT), the European Society of Neuroradiology (ESNR) and the European Stroke Organization (ESO).

Specialized centers reduce mortality after strokes

A recent study presented at the EAN Congress confirms that optimized care in specialized centers is the right approach to take. Data from more than 9,500 patients from the Danish Stroke Registry shows that the reorganization of stroke care in Central Region Denmark (CRD) has paid off. Since 2012, patients with typical stroke symptoms have no longer been taken to one of five hospitals but rather to one of two specialized stroke units. The author of the study summarizes the main results as follows: "Since this changeover, a larger percentage of patients have received an intravenous thrombolysis within the desired window of time of one hour after contact with the hospital and the percentage of early procedures to eliminate stenosis in the carotid artery have risen. Mortality within 30 days after the stroke was able to be reduced from 10.4 to 8.2 per cent."

MRI examination as an optimum way to support therapy

Which diagnostic procedure yields the biggest benefit? That too is a question being explored at the EAN Congress. Two Danish studies covering 444 stroke patients show, for example, that an MRI examination is an essential aid for the treating physicians in helping them to take the right decision regarding therapy. This examination to determine a stroke takes an average of 7.5 minutes longer than a computer tomography. An Italian study presented in Copenhagen on the reorganization of stroke care in Lombardy shows, in addition, that patients with stroke symptoms end up undergoing a thrombolysis if they are delivered by ambulance right away and classified as an emergency with the highest priority. This is another adjusting screw we can turn to make optimum use of the new therapy options."

Source: European Academy of Neurology

Control of immune response relies on a key protein, study finds

Scientists have identified a protein that appears to play a key role in controlling immune response. By testing how the protein works in mice, they found possible explanations for why immune T cells sometimes fail to eliminate tumors and chronic infections. They suggest the discovery may lead to new treatments for many diseases, including cancer, autoimmune diseases, and infections. Researcher discovered that a protein on the surface of T cells, P-selectin glycoprotein ligand-1 (PSGL-1), acts as a negative regulator of T cell function. PSGL-1 has the broad capacity to dampen T cell signals and promote the exhaustion of T cells in viral and tumor mouse models."

The researchers were interested in studying T cells because there is evidence many diseases - including infections and **cancer** - may arise because of problems with T-cell response. T cells recognize and destroy specific invaders, including infectious bacteria and viruses from outside the body and rogue cells from inside the body that can trigger tumors. T-cell activity is highly sensitive to control signals from other immune cells. These adjust T-cell response according to the nature of the "invasion." However, sometimes the response fails - for example, chronic viruses and cancers are able to escape attack by the immune system by disrupting T-cell response.

Crucial for limiting immune responses'

One reason the T-cell response fails is because the cancer cells or viruses are able to use "checkpoints" on the T cells that turn down their activity - effectively exploiting a natural brake on the T cells. The checkpoints are normally controlled by patrolling immune cells and ensure T cells do not overreact and attack healthy tissue.

New drugs called "checkpoint inhibitors" - because they remove the brakes on the T cells - are beginning to show promise in treating some cancers. These drugs could potentially extend survival by years in the case of **lung cancer** and **melanoma**, note the authors. From **tests on mice, research team found PSGL-1 plays a key role in inhibiting T-cell activity. It is needed to increase levels of checkpoints.** In mice bred to lack the protein, T cells remained active for longer than normal and completely eradicated lymphocytic choriomeningitis virus (LCMV) infections, which normally last months. "Total clearance of LCMV is rare," researchers notes. "When they saw that, they knew PSGL-1 was crucial for limiting immune responses." When they injected the same mice with melanoma cells, the researchers **found the resulting tumors** grew more slowly than normal, suggesting PSGL-1 regulates T-cell responses in general.

Written by Catharine Paddock

FDA approves first buprenorphine implant for treatment of opioid dependence

The U.S. Food and Drug Administration approved Probuphine, the first buprenorphine implant for the maintenance treatment of opioid dependence. Expanding the use and availability of medication-assisted treatment (MAT) options like buprenorphine is an important component of the FDA's opioid action plan and one of three top priorities for the U.S. Department of Health and Human Services' Opioid Initiative aimed at reducing prescription opioid and heroin related overdose, death and dependence. The safety and efficacy of Probuphine were demonstrated in a randomized clinical trial of adults who met the clinical criteria for opioid dependence and were considered stable after prior buprenorphine treatment. A response to MAT was measured by urine screening and self-reporting of illicit opioid use during the six month treatment period. Sixty-three percent of Probuphine-treated patients had no evidence of illicit opioid use throughout the six months of treatment – similar to the 64 percent of those who responded to sublingual (under the tongue) buprenorphine alone.

The most common side effects from treatment with Probuphine include implant-site pain, itching, and redness, as well as headache, depression, constipation, nausea, vomiting, The safety and efficacy of Probuphine have not been established in children or adolescents less than 16 years of age. Clinical studies of Probuphine did not include participants over the age of 65.

Source: U.S. Food and Drug Administration

FDA approves Zinbryta to treat multiple sclerosis

The U.S. Food and Drug Administration approved Zinbryta (daclizumab) for the treatment of adults with relapsing forms of multiple sclerosis (MS). Zinbryta is a long-acting injection that is self- administered by the patient monthly. MS is a chronic, inflammatory, autoimmune disease of the central nervous system that disrupts communication between the brain and other parts of the body. The effectiveness of Zinbryta was shown in two clinical trials. One trial compared Zinbryta and Avonex in 1,841 participants who were studied for 144 weeks. Patients on Zinbryta had fewer clinical relapses than patients taking Avonex. The second trial compared Zinbryta with placebo and included 412 participants who were treated for 52 weeks. In that study, those receiving Zinbryta had fewer relapses compared to those receiving placebo. The most common adverse reactions reported in the clinical trial that compared it to Avonex include cold symptoms (nasopharyngitis), upper respiratory tract infection, rash, influenza, dermatitis, throat (oropharyngeal) pain, eczema, and enlargement of lymph nodes.

*Source:**U.S. Food and Drug Administration***

Nizoral (ketoconazole) Oral Tablets - Prescribing for Unapproved Uses including Skin and Nail Infections Continues; Linked to Patient Death

FDA is warning health care professionals to avoid prescribing the antifungal medicine ketoconazole oral tablets to treat skin and nail fungal infections. Use of this medication carries the risk of serious liver damage, adrenal gland problems, and harmful interactions with other medicines that outweigh its benefit in treating these conditions, which are not approved uses of the drug.

FDA approved label changes for oral ketoconazole tablets in 2013 to reflect these serious risks and to remove the indications for treatment of skin and nail fungal infections. However, an FDA safety review found that oral ketoconazole continues to be prescribed for these types of conditions. Since the 2013 labeling change, one patient death has been reported to the FDA due to liver failure associated with oral ketoconazole prescribed to treat a fungal infection of the nails. See the full Drug Safety Communication for further information.

BACKGROUND: Ketoconazole in tablet form is indicated to treat serious infections caused by fungi and should be used only when other effective therapy is not available or tolerated. It works by killing the fungus or preventing it from growing. Ketoconazole is only available as a generic. The topical forms of ketoconazole that are applied to the skin or nails have not been associated with liver damage, adrenal problems, or drug interactions.

In a July 2013 Drug Safety Communication, FDA warned that ketoconazole tablets should not be used as a first-line treatment for any fungal infection because it can cause severe liver injury and adrenal gland problems, and advised it can lead to harmful interactions with other medicines. FDA determined that the risks outweigh the benefits for treating skin and nail fungal infections and approved label changes removing this indication from the drug label and limited its labeled indication to treating only serious fungal infections.

RECOMMENDATION: Health care professionals should use ketoconazole tablets only to treat serious fungal infections when no other antifungal therapies are available. Skin and nail fungal infections in otherwise healthy persons are not life-threatening, and so the risks associated with oral ketoconazole outweigh the benefits. Other treatment options are available over-the-counter and by prescription, but are also associated with risks that should be weighed against their benefits.

Patients should discuss with their health care professionals the risks and benefits of available therapies before using any medicine to treat skin and nail fungal infections. Patients taking ketoconazole tablets should seek medical attention right away if they experience any of these signs and symptoms of liver problems, which include loss of appetite, nausea, vomiting, or abdominal discomfort; yellowing of the skin or the whites of the eyes (jaundice); unusual darkening of the urine or lightening of the stools; or pain and discomfort in the right upper abdomen where the liver is located.

Healthcare professionals and patients are encouraged to report adverse events or side effects related to the use of these products to the FDA's MedWatch Safety Information and Adverse Event Reporting Program

Source: ***U.S. Food and Drug Administration***

Aspirin after Mini-Stroke May Help Prevent Full-Blown Stroke- Study finds risk is reduced by as much as 80 percent

Right after a mini-stroke, people have a 1,000 times higher risk of major stroke than people in the general population, the researchers noted. The new study included data from about 56,000 people. The researchers found that taking aspirin after a mini-stroke -- also called a transient ischemic attack, or TIA -- reduced the risk of a disabling or fatal stroke over the next few days and weeks by 70 percent to 80 percent.

"The study published in in THE LANCET confirm the effectiveness of urgent treatment after TIA and minor stroke, and show that aspirin is the most important component. Immediate treatment with aspirin can substantially reduce the risk and severity of early recurrent stroke," "

This finding has implications for doctors, who should give aspirin immediately if a TIA or minor stroke is suspected, rather than waiting for specialist assessment and investigations," "

Encouraging people to take aspirin if they think they may have had a TIA or minor stroke -- experiencing sudden-onset unfamiliar neurological symptoms -- could help to address this situation, particularly if urgent medical help is unavailable

According to Dr. Dale Webb is director of research and information at England's the Stroke Association. The findings suggest that anyone who has stroke symptoms, which are improving while they are awaiting urgent medical attention can, if they are able, take one dose of 300 milligram aspirin."

The symptoms of a mini-stroke and a major stroke are similar and include: Numbness or muscle weakness, usually on one side of the body, difficulty speaking or understanding speech, dizziness or loss of balance, double vision or difficulty seeing in one or both eyes .Symptoms of a mini-stroke usually last only a few minutes but may persist for up to 24 hours.

Source: https://consumer.healthday.com

دواءٌ شائع للسكَّري يمكن أن يقلِّل من خطر الوفاة بالسرطان

15-Apr-2016

تُشِير دراسةٌ جديدة إلى أنَّ ميتفورمين Metformin، وهو دواءٌ معروف للسكَّري، يمكن أن يقلِّلَ من خطر الوفاة ببعض السرطانات عندَ النساء بعدَ سنِّ اليأس والمصابات بالسكَّري من النوع الثاني. وجدت الدراسةُ أنَّه، بالنسبة للنساء المصابات بالسكَّري من النوع الثاني والسرطان، كان احتمالُ الوفاة بالسرطان أعلى بنسبة 45 في المائة ممَّا هو عندَ النساء المصابات بالسرطان وغير المصابات بالسكَّري. ولكن، في النساء المصابات بالسرطان واللواتي يتناولنَ ميتفورمين لمعالجة السكَّري من النوع الثاني، فإنَّ خطرَ الوفاة بالسرطان بدا أنَّه يشبه ما كان عليه في النساء غير المصابات بالسكَّري. قالت كبيرةُ الباحثين زيونغ كونغ، وهي أستاذةٌ مساعدة في علم الأورام بمعهد بارك روزويل للسرطان في بوفالو "يمكن أن تقدِّم نتائجُنا المستقاة من هذه الدراسة الكبيرة المزيدَ من الأدلَّة حول أنَّ النساءَ المصابات بالسرطان والسكَّري بعدَ سنِّ اليأس يمكن أن يستفدنَ من المعالجة بدواء ميتفورمين، بالمقارنة مع أدوية السكَّري الأخرى. ولكن، قالت كونغ إنَّ هذه الدراسةَ لا تُثبِت أنَّ ميتفورمين يمنع أو يقلِّل من خطر الوفاة بالسرطان، وإنَّما لوحظ ارتباطٌ فقط بين الأمرين. وأضافت قائلةً: إنَّ هناك حاجةً إلى مزيد من الدراسات لسَّبر الدور المحتمل للميتفورمين في التقليل من خطر الوفاة بالسرطان.

يعدُّ ميتفورمين دواءَ الخطِّ الأوَّل في معالجة السكَّري من النوع الثاني؛ فالمصابون بهذه الحالة لا يستفيدون من الأنسولين بشكلٍ كامل، ممَّا يؤدِّي إلى ضخِّ البنكرياس للمزيد منه إلى أن يُصابَ بالفشل والقصور. والأنسولين هرمونٌ ضروريٌّ لاستفادة الجسم من الكربوهيدرات في الطعام كوقود. يعمل الميتفورمين على زيادة استجابة الجسم للأنسولين، والتقليل من مقاومة الجسم له. قام فريقُ الدراسة بمراجعة المعطيات المأخوذة من نحو 146 ألف امرأة في سن اليأس، وكنَّ بعمر ما بين 50 و 79 سنة. وقد جُمعَت المعلوماتُ بين عامي 1993 و 1998، وهي مأخوذةٌ من دراسة مشهور تُدعى دراسة مبادرة الصحَّة النسوية Women's Health Initiative study.

أراد الباحثون التركيزَ على النساء المصابات بالسكَّري من النوع الثاني في هذه الدراسة. وفي سعيٍ منهم لاستبعاد النساء المصابات بالسكَّري من النوع الأوَّل، أزالَ الباحثون المعلومات حولَ أي امرأة لديها سكَّري قبل عمر 21 سنة. بالمقارنة مع سرطاناتٍ أخرى، يبدو أنَّ خطرَ السرطان عندَ النساء المصابات بالسكَّري بعد سنِّ اليأس يزيد بنسبة 25-35 في المائة تقريباً بالنسبة للإصابة بسرطانات القولون وبطانة الرحم ولمفومة لاهودجكين non-Hodgkin lymphoma. كما وجد الباحثون أنَّ الخطرَ لدى هؤلاء النساء أكثر من الضعفين بالنسبة لسرطانات الكبد والبنكرياس. قالت كونغ "تشير نتائجُنا إلى أنَّ السكَّري يبقى أحدَ عوامل الخطر بالنسبة للسرطان والوفاة بسببه؛ وربَّما يكون لدواء ميتفورمين - بالمقارنة مع أدوية السكَّري الأخرى - دورٌ مهمّ في (تدبير) السرطان المرتبط بالسكَّري.

المصدر: *موسوعة الملك عبد الله بن عبد العزيز العربية للمحتوى الصحي .*

دواء مضادّ للصرع يستخدم مرةً واحدة باليوم يظهر فعَّالية جيدة

14-Apr-2016

قالَ باحِثون إنَّ دواءً للصَّرع epilepsy، يُستخدَمُ مرَّةً واحِدة في اليومِ، قد يضبط النوبات مثلما يفعل دواءٌ آخرَ يُستخدَم مرَّتين في اليوم.

قارنَ الباحِثون بين دواء إسليكاربازيبين أسيتيت eslicarbazepine acetate (أبتيُوم aptiom)، الذي يُستخدَم مرَّةً واحِدة في اليوم، مع دواء كربامازيبين carbamazepine (تيغريتول tegretol وكاربترول carbatrol)، الذي يُستخدم مرَّتين في اليوم، عند أكثر من 100 شخصٍ شُخِّصَت مُؤخَّراً إصابتُهم بنوبات صرعية جزئيَّة للصَّرع partial seizures، وهي نوباتٌ تنشأ في منطقةٍ واحِدةٍ من الدِّماغ.

قالَ الباحِثون إنَّه، من بعد مُرور 6 أشهر، تَوقَّفت نوباتُ الصَّرع عندَ 71 في المائة من المرضى الذين تناولوا دواء إسليكاربازيبين و 76 في المائة من الذين تناولوا دواء كربامازيبين. قالت المُشرِفةُ على فريق الباحثين الدكتورة إلينور بن مناخيم، من جامِعة غوثنبرغ في السويد: "بعدَ مرور 12 شهراً، وجدنا أنَّ 65 في المائة من الذين تناولوا دواء إسليكاربازيبين و 70 في المائة من الذين تناولوا دواء كربامازيبين، تَوقَّفت نوبات الصَّرع لديهم".

"إنَّ ضبطَ الصَّرع أمرٌ مهمٌ جدّاً، ولهذا نعتقِدُ أنَّ الدواءَ الذي يُستخدم مرَّةً واحِدة في اليوم فقط قد يُساعِد المرضى على الالتِزام أكثر باستخدامه".

"نحن نعلم أنَّ المشاكلَ، التي تُصيب الذَّاكِرة والتَّعب أو الجدول الزمنيّ المُعقَّد للأدوية المطلوبة، يُمكنها أن تُعيقَ التِزامَ المرضى بتناوُل الأدوية التي تضبط نوبات الصَّرع بشكلٍ مُنتظِمٍ؛ ولذلك، قد يكون اختيارُ دواءٍ يُؤخذ مرَّةً واحِدة في اليوم، خصوصاً عندما تُشخَّصُ الإصابةُ حديثاً ولا يزال المريض في مرحلة تعلُّم كيف يضبط المرض، مهمَّاً ونافِعاً بشكلٍ واضِحٍ". قال الدكتور شين هوانغ، طبيب الجهاز العصبيّ لدى مركز رعاية مرضى نوبات الصرع في نيويورك: "تُظهِرُ هذه الدِّراسةُ أنَّ دواء إسليكاربازيبين فعَّالٌ تماماً كدواء كربامازيبين الأقدم والأكثر تجربةً".

"إنَّ تركيبةَ الدواء، التي يستمرّ مفعولها لفترةٍ طويلةٍ وتأتي على شكل جرعةٍ واحِدةٍ في اليوم، قد تجعل من السَّهل على المريض الالتِزام بتناوُلها مع بقيَّة الأدوية، وتُجنِّبهُ إغفالَ الجرعات، وتُقلِّلُ من خطر تفاقُم نوبات الصَّرع".

المصدر: *موسوعة الملك عبد الله بن عبد العزيز العربية للمحتوى الصحي .*

Scientific Books: New Release

Pharmacology Made Incredibly Easy (Incredibly Easy! Series®) Fourth Edition by LWW (Author)

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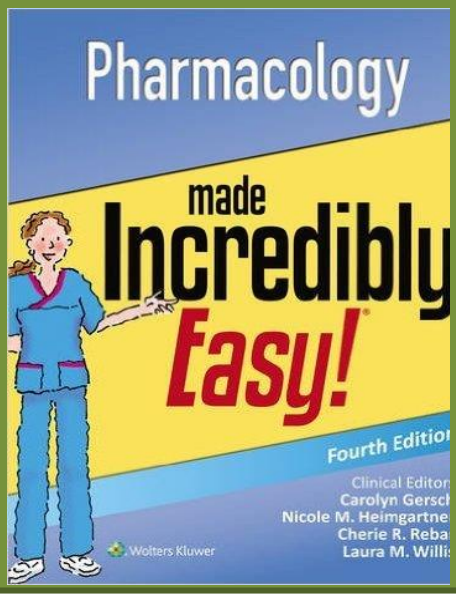

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Upcoming Conferences

- July 11 to 13 2016 , 6th Asia-Pacific Pharma Congress Kuala Lumpur, Malaysia
- July 14-16 , 5th Global Pharmacists Annual Meeting, 2016 Brisbane, Australia
- July 14-15 , International Pharmacy Conference, 2016 Philadelphia, PA, USA.
- July 25-27, 2016 , International Conference and Exhibition on Marine Drugs and Natural Products Melbourne, Australia.
- August 22-24 , 7th Annual Global Pharma Summit, 2016 New Orleans, Louisiana, USA.
- September 28-30 , 2016 , 6th Pharmacovigilance Congress, Toronto, Ontario, Canada

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