

## A round-up of the eye-related hot topics that have been trending over the last few weeks.

### #Polishdoctor #UkraineConflict

#### #familysight

Polish doctor Professor Rejdak's team saved a Ukrainian family's eyesight after a bomb hit their home. Olena Selichzianowa and her 5-year-old twin boys Nazar and Timur were injured by flying shrapnel and glass. Professor Rejdak is president of the Association of Polish Ophthalmic surgeons. One of his former students, Dr Nataliya Preys, who works in Lviv, sent photos to him of the injuries, and arranged for the three to be sent to him for treatment. It took a week for them to arrive, because of the fighting, and as we know with ocular trauma, time is crucial. Olena required bilateral cataract surgery, but the boys both needed retinal surgery, and will need further cataract surgery. Tragically, Nazar lost one eye, and both are struggling with post-traumatic stress. Luckily, however, Olena has made a good recovery, though the final prognosis for the boys is still unclear [1,2].

### #DavidNott #UkraineConflict

#### #IndianaJonesofMedicine #Zoom

Professor Nott OBE FRCS is a vascular surgeon who has worked in conflict zones, such as Syria, Afghanistan, and Iraq. At the start of the conflict in Ukraine, he and his team at the David Nott Foundation provided virtual training via Zoom to Ukrainian doctors, who have not previously been trained to deal with trauma, and in difficult conditions with limited resources. Subsequently he has been in Ukraine to operate and teach as many Ukrainian doctors as possible. Despite now being back in the UK, he is still providing remote advice, such as taking a Ukrainian doctor through a leg operation step-by-step remotely, as it was something the Ukrainian doctor had never done. Admittedly this is not an eye-related story, but his efforts reminded me of the distance wet-lab and simulation cataract surgery training model delivered by Cybersight, Orbis International's telemedicine platform [3-5].

### #DrKaranRajan #eyestress

#### #schoolwithdrkaran

Dr Karan Rajan is a General Surgery Registrar in Sunderland, who makes tutorials about general medical topics on TikTok. His video of an eye trick to reduce stress went viral. He explained that by engaging the peripheral vision & panoramic vision, it activates the parasympathetic system, which will help reduce stress. NGL (not gonna lie), this is not something I've come across before. As we all may remember from studying for

Part 1, it is pupil constriction (and therefore accommodation) not dilation that is activated by the parasympathetic nervous system. This would contradict what Dr Rajan is saying. It seems that what Dr Rajan is referring to is something taught by neurolinguistic programming as a technique to reduce stress. The theory is that foveal vision, which is the vision used when concentrating on something intensely, and disregarding peripheral vision causes stress because it results in unawareness of the body and therefore activates the sympathetic nervous system [6-8].

### #Canadafamily #worldtour

#### #visualmemories

A Canadian family is touring the world over the next year with their children before they go blind. Three of their four children have retinitis pigmentosa, an incurable and progressively blinding disease. The eldest, Mia, is 11, and the two youngest Colin and Laurent are four and six, respectively. Only their son Leo has been spared. Their parents Edith Lemay and Sébastien Pelletier were advised to immerse their children in rich detailed scenes via books and pictures. But Lemay thought: why not give them the real thing? They learned how to home-school their children, and after a little delay due to a pesky pandemic, they are now on the road. At the time of writing this article, they are in Namibia. After this, they plan to travel via rail from Zambia to Tanzania. Turkey and Mongolia are in their plans, should the geopolitical situation allow. Not only will this trip enrich their children's memories, but the couple believe it will also teach them about problem solving and gratitude, and to "look on the bright side", as Lemay was quoted in a CTV News article. You can follow their journey on their Facebook page, 'Le monde plein leurs yeux' [9-11].

### #Erectiledysfunctiondrugs

#### #eyeproblems

A Canadian study, recently published in *JAMA Ophthalmology*, has shown that the regular use of phosphodiesterase type 5 inhibitors (PDE5Is) is associated with an increased risk of serious ocular adverse events. This was a large cohort study of 213,033 men using sildenafil, tadalafil, vardenafil, and avanafil, with a case-control analysis. The control group consisted of 4584 men who did not use these drugs. During the study period, there were 628 cases of retinal vascular occlusion, 240 cases of ischaemic optic neuropathy, and 278 cases of

serous retinal detachment. They were more likely to have underlying conditions like hypertension, diabetes, coronary artery disease and sleep apnoea. Even when controlling these underlying conditions, those regularly taking PDE5Is had an 85% increased risk in experiencing one of these adverse ocular events (adjusted relative risk 1.85, 95% CI 1.41-2.42; incidence 15.5 cases per 10,000 person-years). The adjusted relative risk for the individual outcomes was as follows: serous retinal detachment 2.58 (95% CI 1.55-4.30; incidence 3.8 cases per 10,000 person-years), retinal vascular occlusion 1.44 (95% CI 0.98-2.12; incidence 8.5 cases per 10,000 person-years), and for ischaemic optic neuropathy 2.02 (95% CI 1.14-3.58; incidence 3.2 cases per 10,000 person-years). That is, those taking regular PD5Is were 158%, 44% and 102% more likely to experience serous retinal detachment, retinal vascular occlusion and ischaemic optic neuropathy, respectively [12,13].

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