



Doctor wins 2017 John Maddox prize for countering HPV vaccine misinformation

Riko Muranaka awarded prize for efforts to explain jabs's safety amid scare campaigns which have seen Japanese vaccination rate fall from over 70% to 1%

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Thursday 30 November 2017 19.00 GMT

A Japanese doctor who has stood up to a campaign of misinformation around a common anti-cancer vaccine has won a prestigious prize for championing evidence in the face of hostility and personal threats.

Riko Muranaka at Kyoto University was awarded the 2017 John Maddox prize on Thursday for her efforts to explain the safety of the human papilloma virus (HPV) vaccine amid strong opposition from anti-vaccine activists and a small group of academics.

Muranaka was praised by colleagues for her courage and leadership as she endured insults, litigation and attempts to undermine her professional status as the HPV vaccine came under attack in Japan. While the jab is used without fuss in many countries, in Japan and some other nations, fears raised by campaigners have hit vaccine uptake rates.

Britain has offered the HPV vaccine on its national immunisation program since 2008. The jab protects against several strains of HPV that cause nearly all cases of cervical cancer, a disease that claims more than quarter of a million lives globally each year.

Muranaka began writing about the vaccine after Japanese TV stations and other national media carried unconfirmed reports of immunised children experiencing pain, walking problems, seizures and other neurological issues. Some parents posted videos of their children online, claiming their symptoms were caused by the HPV jab. Despite its own health ministry finding no evidence that the vaccine was to blame, the Japanese government suspended proactive recommendations for the jab in 2013.

Uncritical media coverage and the government's stance spread concern over the jab's safety and vaccination rates in Japan have crashed from more than 70% to less than 1% in recent years. The situation was compounded by a small number of doctors proposing a new condition, namely HPV vaccination-associated neuro-immunopathic syndrome, or HANS, based on patients' complaints. The Japanese government committee to review vaccine reactions has concluded that the symptoms are probably psychosomatic.

Muranaka said sensational media coverage helped spread unfounded fears over the HPV vaccine across Japan. "I was really surprised that people believed it so easily. With screening and this vaccine we could prevent many deaths from this disease in Japan, but we are not taking the opportunity," she said. A handful of other countries are witnessing similar trends, with Ireland and Denmark both experiencing falls in HPV vaccination rates.

In June, the World Health Organisation (WHO) restated that there was no evidence the vaccine caused the reported illnesses. The WHO's Global Advisory Committee on Vaccine Safety said that "despite the extensive safety data available for this vaccine, attention has continued to focus on spurious case reports and unsubstantiated allegations."

Muranaka is now embroiled in a court case with another doctor who was commissioned by the Japanese government to investigate adverse reactions to the vaccine. Shuichi Ikeda at Shinshu University claimed that mouse studies revealed a link between the vaccine and brain damage. Muranaka claims that Ikeda fabricated the results, and while a university investigation cleared him of that specific charge, it criticised Ikeda for presenting early data from a single mouse as conclusive medical evidence.

In speaking out, Muranaka has been threatened and accused of being in the pay of the vaccine's manufacturers, or the government, to promote the jab, and even of being a "WHO spy".

The John Maddox prize is awarded by the journal Nature, the Kohn Foundation, and the charity Sense about Science, to people who promote science and evidence on matters of public interest. Previous winners include the psychiatrist Simon Wessely, who faced death threats for his work on chronic fatigue syndrome and mental health, and Elizabeth Loftus, whose work on false memories propelled her into controversies over the unreliability of eyewitness testimonies and recovered memories of child abuse.

"I really hope that the prize helps scientists and journalists in Japan to speak more about the truth," Muranaka said. "I hope it will help people take the side of science."

Heidi Larson, director of the vaccine confidence project at the London School of Hygiene and Tropical Medicine said there was no scientific evidence linking HPV to the reported neurological symptoms. "The dramatic drop in vaccine acceptance has been influenced by aggressive negative social media, mainstream media that has been biased towards the negative personal stories, as well as, and very importantly, the government not standing up for the vaccine and the vaccine science in the face of public anxiety and uncertainty," she said.

"The parents of the young women who have had these reactions are convinced that these symptoms are caused by the vaccination and are unlikely to change their minds," Larson said.

“But it is important for young women who have not yet been vaccinated, and for their parents, to have more information on the number of girls around the world who have been successfully vaccinated without any negative reactions, and to understand better what it means to have cervical cancer.

Katsuyuki Kinoshita, head of the Japanese Association of Obstetricians and Gynaecologists, who nominated Muranaka for the prize, said: “Her courageous challenge in demonstrating the safety of the HPV vaccine, despite insult, litigation and attempts to undermine her professional status, epitomises the core spirit of the Maddox prize.”

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