KANADŠTÍ VĚDCI POTVRDILI, ŽE MRNA VAKCÍNY VYTVÁŘÍ VŮČI OMIKRONU NEGATIVNÍ ÚČINNOST

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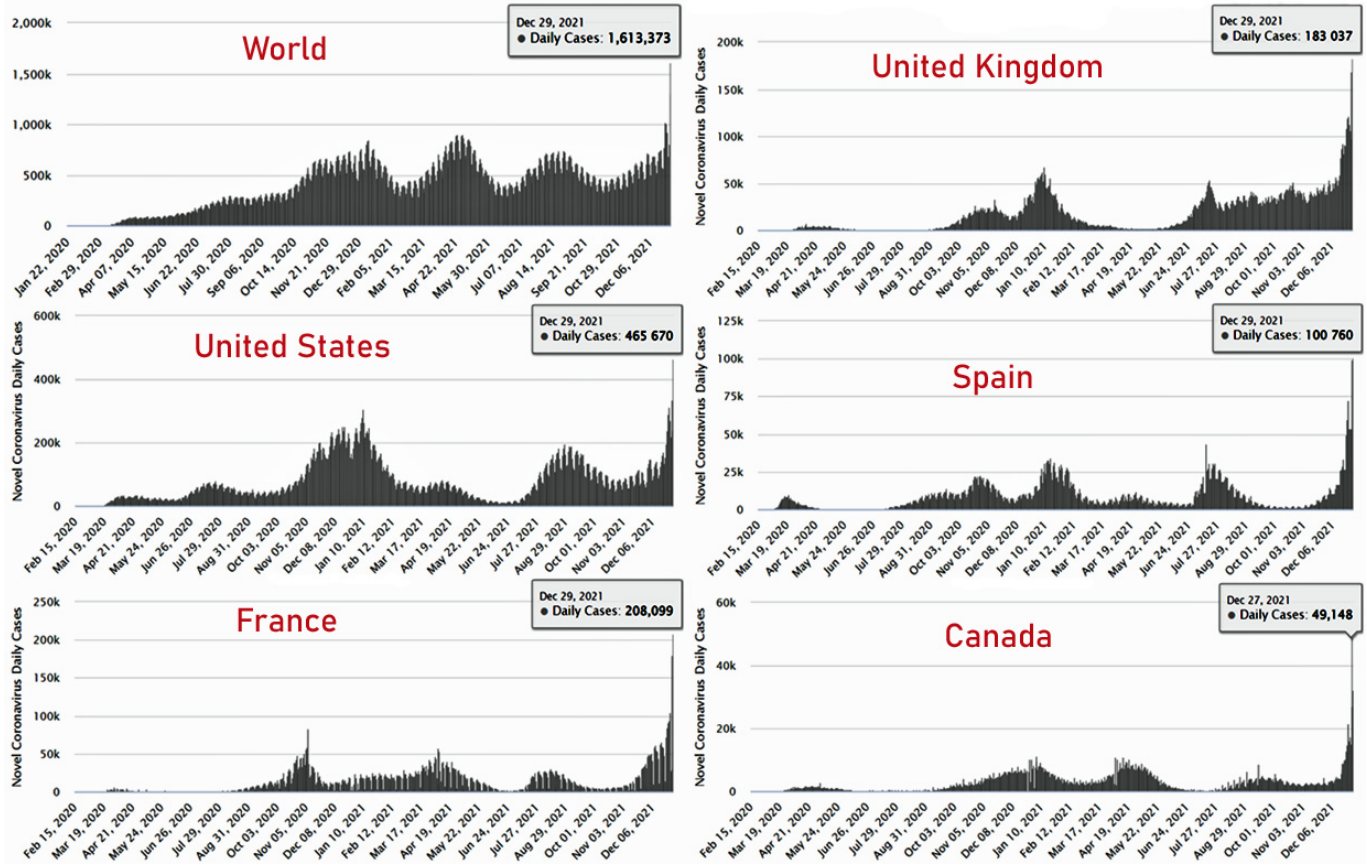
USA/EU: Mnoho vědeckých studií a souhrnů dat z testů od národních zdravotních center odhaluje krutou pravdu: injekce vakcín na COVID-19 ve skutečnosti zvyšují pravděpodobnost infekce variantou Omikron.

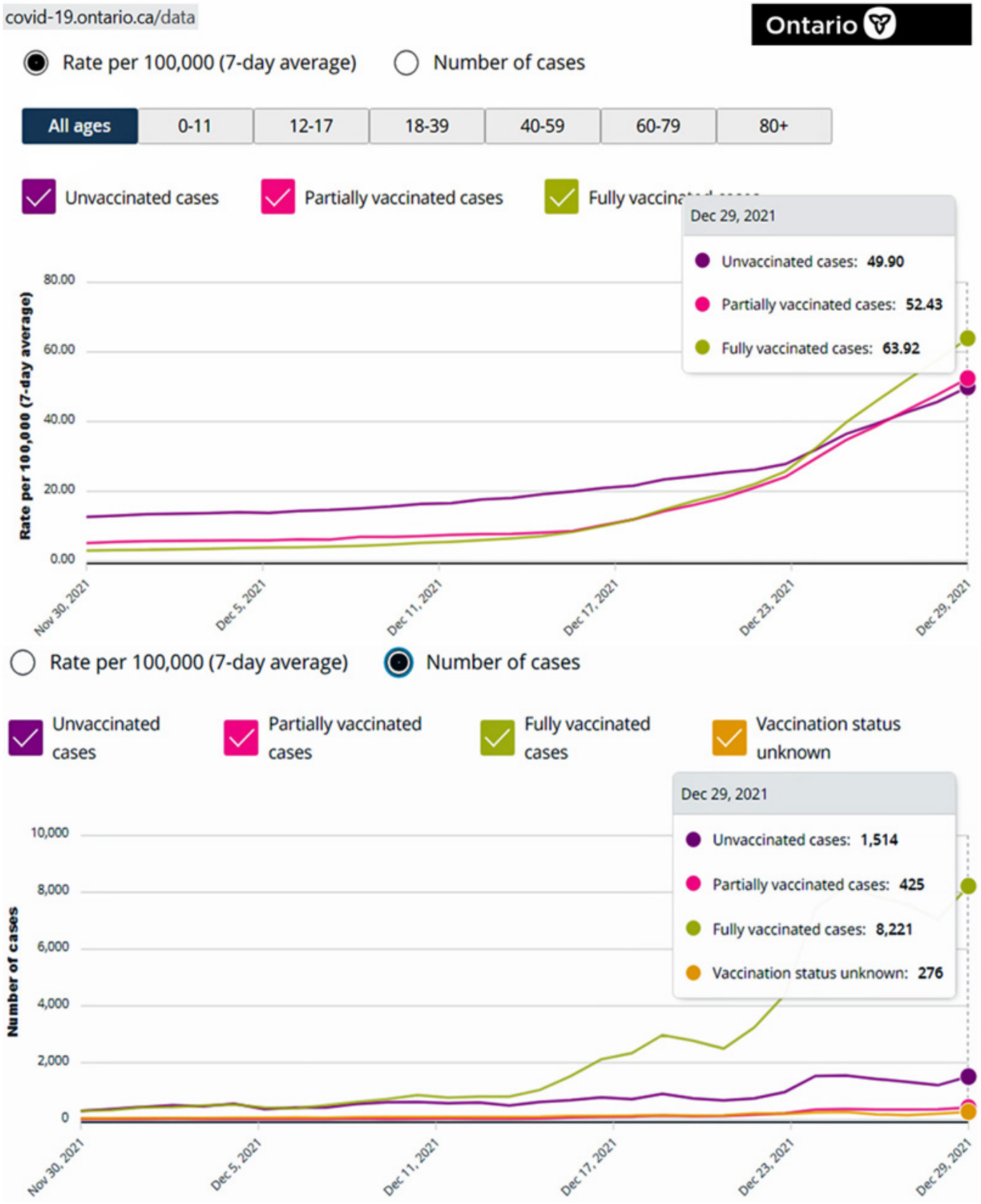
29. prosince bylo potvrzeno 1,61 milionu nových případů COVIDU. To je o statisíce více než jakýkoliv jiný jediný den od počátku pandemie.

K více než 1 milionu těchto nových případů došlo v 5 nejvíce pro-očkovaných zemích, v USA, ve Francii, v Británii, ve Španělsku a v Kanadě.



Zdroj obrázku: ***worldometers.info***

Data shromážděná vládou Ontaria ukazují, že plně vakcinovaní lidé mají o 28% vyšší míru chycení infekce COVID-19 (64 na 100 000) než nevakcinovaní (50 na 100 000). 29. prosince bylo v Ontariu 8 221 nových případů mezi plně očkovanými oproti 1 514 mezi nevakcinovanými.



Zdroj obrázku: ***ontario.ca***

Studie Omikronu z Dánska nám říká, že po 91 a po 150 dnech po obdržení injekcí na mRNA vakcíny od Pfizer a Moderny je účinnost proti symptomatickým infekcím variantou Omikron rozhodně negativní, o výši -76,5% a -39,3% podle toho termínu.

Jinými slovy plně vakcinovaní lidé mají asi o 40 až 75% vyšší pravděpodobnost, že budou variantou

COVID-19 Omikron symptomaticky infikováni než lidé, kteří očkováni nebyli.

Účinnost vakcín Pfizer a Moderna se propadne z asi 40-50% během prvního měsíce na asi 0% 61 až 90 dnů po poslední dávce. Po 90 dnech vakcína pravděpodobnost infekce zvyšuje.

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Vaccine effectiveness against SARS-CoV-2 infection with the Omicron or Delta variants following a two-dose or booster BNT162b2 or mRNA-1273 vaccination series:A Danish cohort study

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On 26 November, 2021, the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) variant B.1.1.529, named Omicron, was classified as a variant of concern by the WHO and is currently spreading rapidly across the globe including in Denmark.[1,2] Here, we estimate COVID-19 vaccine protection against infection with Omicron or Delta up to five months after primary vaccination using Danish nationwide data.

By December 12, 2021, there were 5,767 identified Omicron cases in Denmark with a median age of 28 years (93% <60 years). Among those who had most recently completed primary vaccination, VE against Omicron was 55.2% (95% confidence interval: 23.5 to 73.7%) and 36.7% (-69.9 to 76.4%) for the BNT162b2 and mRNA-1273 vaccines, respectively, but with evidence of rapid waning over the course of five months. By comparison, VE against Delta was significantly higher and better preserved over the same period (see Figure and Table).

VE among those who had received a booster dose 14 to 44 days earlier was 54.6% (30.4 to 70.4%) using those with only primary vaccination as comparison (analysis restricted to 60+ year-olds).

VE against Omicron was 55.2% initially following primary BNT162b2 vaccination, but waned quickly thereafter. Although estimated with less precision, VE against Omicron after primary mRNA-1273 vaccination similarly indicated a rapid decline in protection. By comparison, both vaccines showed higher, longer-lasting protection against Delta. The negative estimates in the final period arguably suggest different behaviour and/or exposure patterns in the vaccinated and unvaccinated cohorts causing underestimation of the VE. This was likely the result of Omicron spreading rapidly initially through single (super-spreading) events causing many infections among young, vaccinated individuals.

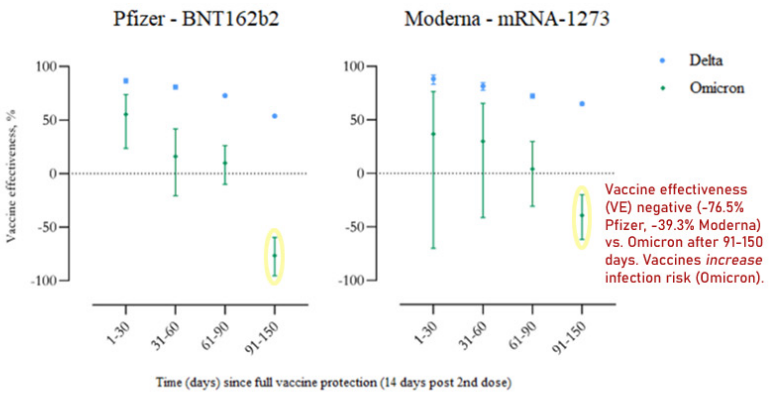


Figure Vaccine effectiveness against SARS-CoV-2 infection with the Delta and Omicron variants, shown separately for the BNT162b2 and mRNA-1273 vaccines. Vertical bars indicate 95% confidence intervals.

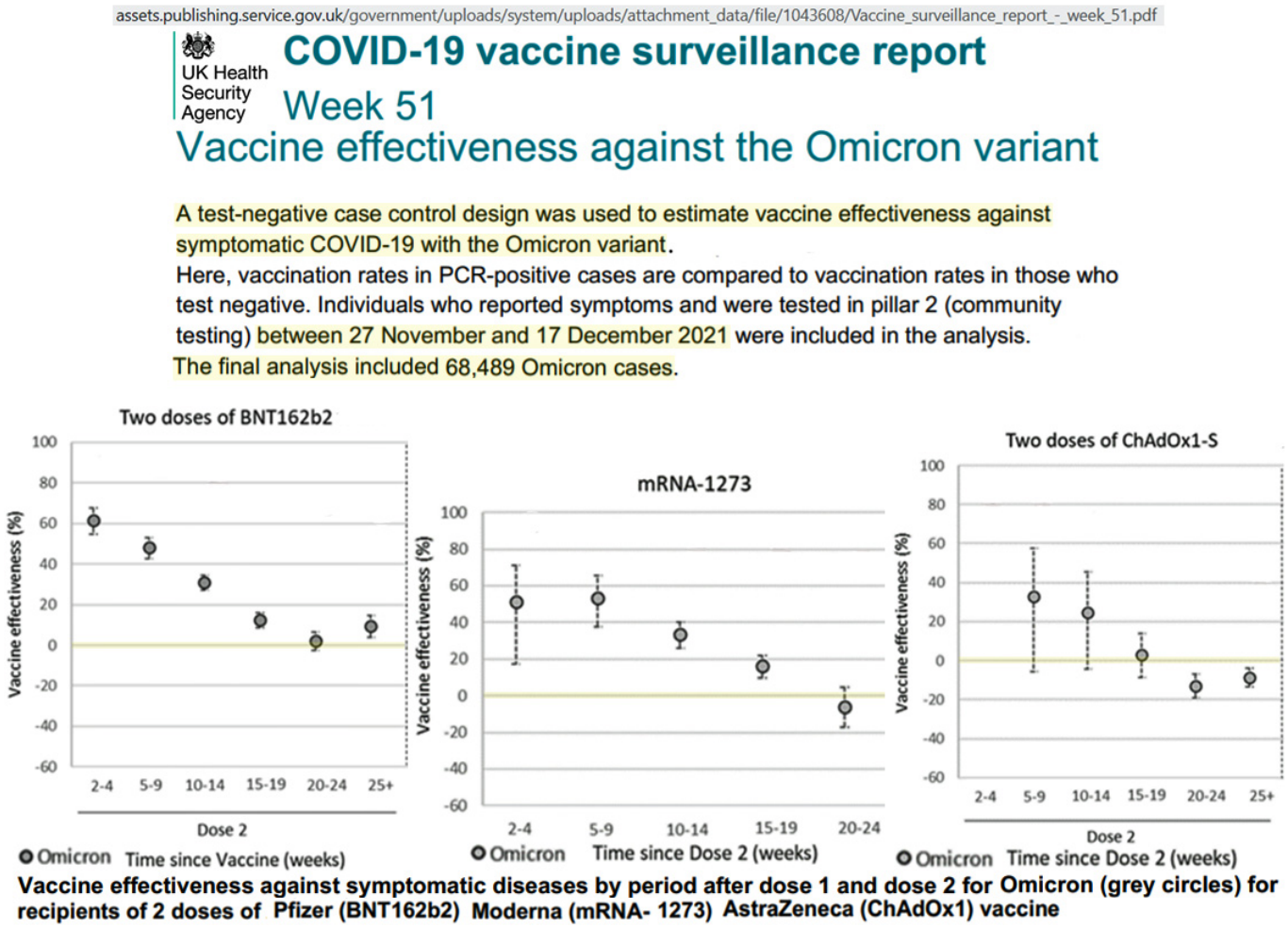
Table Estimated vaccine effectiveness for BNT162b2 and mRNA-1273 against infection with the SARS-CoV-2 Omicron and Delta variants during November 20 – December 12, 2021, Denmark.

	Pfizer – BNT162b2				Moderna - mRNA-1273			
	Omicron		Delta		Omicron		Delta	
Time since vaccine protection	Cases	VE, % (95% CI)	Cases	VE, % (95% CI)	Cases	VE, % (95% CI)	Cases	VE, % (95% CI)
1-30 days	14	55.2 (23.5; 73.7)	171	86.7 (84.6; 88.6)	4	36.7 (-69.9; 76.4)	29	88.2 (83.1; 91.8)
31-60 days	32	16.1 (-20.8; 41.7)	454	80.9 (79.0; 82.6)	8	30.0 (-41.3; 65.4)	116	81.5 (77.7; 84.6)
61-90 days	145	9.8 (-10.0; 26.1)	3,177	72.8 (71.7; 73.8)	48	4.2 (-30.8; 29.8)	1,037	72.2 (70.4; 74.0)
91-150 days	2,851	-76.5 (-95.3;-59.5)	34,947	53.8 (52.9; 54.6)	393	-39.3 (-61.6;-20.0)	3,459	65.0 (63.6; 66.3)
1-30 days after booster vaccination protection	29	54.6 (30.4; 70.4)	453	81.2 (79.2; 82.9)	-	-	5	82.8 (58.8; 92.9)

CI = confidence intervals; VE = vaccine effectiveness. VE estimates adjusted for 10-year age groups, sex and region (five geographical regions). Vaccine protection was assumed 14 days post 2nd dose. Insufficient data to estimate mRNA-1273 booster VE against Omicron.

Zdroj obrázku: ***Hansen et al., 2021***

Data o COVIDU shromážděná britskou vládou mezi 27. listopadem a 17. prosincem ukazují v analýze 68 489 případů Omikron podobný vzor zklamání. Účinnost vakcín (Pfizer, Moderna, AstraZeneca) proti Omikronu vyroste během 5-9 týdne o 40-60%, ale pak účinnost rychle klesá na 0 a ještě níže (-5% až -15%) po 20 a ž 24 týdnu.



Zdroj obrázku: **[UK Health Security Agency]**

Sedmnáct vědců publikovalo 15. prosince online předběžnou analýzu referující o tom, že varianta Omikron je „značně rezistentní vůči neutralizaci sérem“ z široce používaných vakcín na COVID-19.

Tito vědci varují:

„I séra od osob vakcinovaných a s posilujícími injekcemi doplněných mRNA vakcínami vykazují značně sníženou neutralizaci proti Omikronu.“

„Varianta Omikron představuje značnou hrozbu pro mnoho z existujících vakcín a terapií na COVID-19,“ když se „zjevně zplošťuje prostředí pro terapii protilátkami na COVID-19.“

„Značný pokles neutralizace Omikronu byl pozorován se středním snížením více než 6,0-násobně u plně vakcinované skupiny a více než 4,1-násobně u plně vakcinované s posílením.“

bioRxiv preprint doi: https://doi.org/10.1101/2021.12.14.472719; this version posted December 15, 2021.

Striking Antibody Evasion Manifested by the Omicron Variant of SARS-CoV-2

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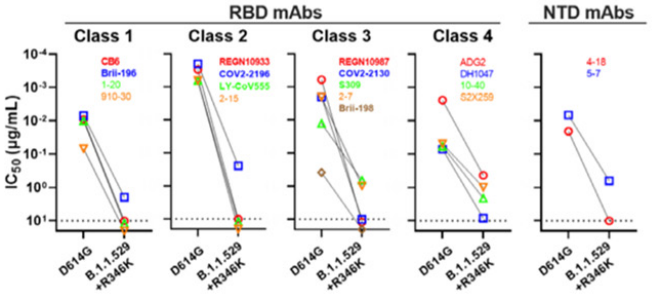
The Omicron (B.1.1.529) variant of SARS-CoV-2 was only recently detected in southern Africa, but its subsequent spread has been extensive, both regionally and globally[1]. It is expected to become dominant in the coming weeks[2], probably due to enhanced transmissibility. A striking feature of this variant is the large number of spike mutations[3] that pose a threat to the efficacy of current COVID-19 vaccines and antibody therapies[4]. This concern is amplified by the findings from our study. We found B.1.1.529 to be markedly resistant to neutralization by serum not only from convalescent patients, but also from individuals vaccinated with one of the four widely used COVID-19 vaccines. Even serum from persons vaccinated and boosted with mRNA-based vaccines exhibited substantially diminished neutralizing activity against B.1.1.529. By evaluating a panel of monoclonal antibodies to all known epitope clusters on the spike protein, we noted that the activity of 18 of the 19 antibodies tested were either abolished or impaired, including ones currently authorized or approved for use in patients. In addition, we also identified four new spike mutations (S371L, N440K, G446S, and Q493R) that confer greater antibody resistance to B.1.1.529. The Omicron variant presents a serious threat to many existing COVID-19 vaccines and therapies, compelling the development of new interventions that anticipate the evolutionary trajectory of SARS-CoV-2.

The scientific community has chased after SARS-CoV-2 variants for a year. As more and more of them appeared, our interventions directed to the spike became increasingly ineffective. The Omicron variant has now put an exclamation mark on this point. It is not too far-fetched to think that this SARS-CoV-2 is now only a mutation or two away from being pan-resistant to current antibodies, either monoclonal or polyclonal. We must devise strategies that anticipate the evolutional direction of the virus and develop agents that target better conserved viral elements.

While performing these mAb studies, we also observed that all the currently authorized or approved mAb drugs are rendered weak or inactive by B.1.1.529 (**Figs. 2c and 3a**). In fact, the Omicron variant that contains R346K seemingly flattens the antibody therapy landscape for COVID-19 (**Fig. 2d and 3a**).

Booster shots are now routinely administered in many countries 6 months after full vaccination. Therefore, we also examined the serum neutralizing activity of individuals who had received three homologous mRNA vaccinations (13 with BNT162b2 and 2 with mRNA-1273). Every sample showed lower activity in neutralizing B.1.1.529, with a mean drop of 6.5-fold compared to WT (**Fig. 1d**). Although all samples had titers above the LOD, the substantial loss in activity may still pose a risk for B.1.1.529 infection despite the booster vaccination.

We then confirmed the above findings by testing a subset of the BNT162b2 and mRNA-1273 vaccinee serum samples using authentic SARS-CoV-2 isolates: wild type and B.1.1.529. Again, a substantial decrease in neutralization of B.1.1.529 was observed, with mean drops of >6.0-fold and >4.1-fold for the fully vaccinated group and the boosted group, respectively (**Fig. 1e**).



Zdroj obrázku: ***Liu et al., 2021***

Tento měsíc věci publikující v ***The New England Journal of Medicine*** (včetně toho neblaze proslulého Dr. Anthonyho Fauciho z USA) zjevně uznali, že Omikron mění prostředí pro boj s pandemií.

Ti teď tvrdí, že je tu už „naléhavá potřeba“ nových vakcín, protože mRNA vakcíny“ vyvolají jen přechodnou a neúplnou ochrannou imunitu“ a nejsou „schopny propuknutí infekcí zabráni.“ A v důsledku těchto „ohromujících faktů“ tu bude COVID-19 „dále v oběhu bez omezení.“

The NEW ENGLAND JOURNAL of MEDICINE

December 15, 2021
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Universal Coronavirus Vaccines — An Urgent Need

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As important as these vaccines are, however, their protective efficacy wanes over time, necessitating booster doses. Vaccination has also been unable to prevent "breakthrough" infections, allowing subsequent transmission to other people even when the vaccine prevents severe and fatal disease.

These sobering facts suggest that SARS-CoV-2 is unlikely to be eliminated, let alone eradicated; it will probably continue to circulate indefinitely in periodic outbreaks and endemics. Meanwhile, an unknown number of animal coronaviruses, of unknown transmissibility and lethality, may well emerge in the foreseeable future. We must therefore greatly accelerate our efforts in coronavirus vaccinology.

The limitations of SARS-CoV-2 vaccines suggest that they will ultimately need to be replaced by second-generation vaccines that induce more broadly protective and more durable immunity. We must now prioritize development of broadly protective vaccines like the universal influenza vaccines we have been working toward in recent years. A universal coronavirus vaccine would ideally protect against SARS-CoV-2 and the many animal-derived coronaviruses that might cause future zoonotic outbreaks and pandemics.

Developing universal coronavirus vaccines will require addressing fundamental questions about the nature of coronavirus protective immunity. In contrast to respiratory viruses that cause systemic infections (e.g., measles, rubella, varicella–zoster virus infection, and smallpox [eradicated in 1980]), nonsystemic respiratory viruses such as the endemic coronaviruses, influenza viruses, RSV, parainfluenza viruses, and SARS-CoV-2 primarily infect epithelial cells on mucosal surfaces and have limited contact with the systemic immune system. They thus elicit incomplete and transient protective immunity and allow reinfections and suboptimal responses to systemically administered vaccines.

Zdroj obrázku: ***Morens et al., 2021***

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Poznámka:

Otázkou je, proč by tomu tak mělo být? Oslabeným imunitním systémem? Doufejme, že ne, protože to je poslední věc, kterou by obecně nezdravě živená populace mohla potřebovat, kdyby tuto zimu vypukla chřipka. – PG

AUTOR: Kenneth Richard

ZDROJ

PŘEKLAD: reformy.cz