Apart though from the management of febrile children, pediatricians and the pediatric infectious diseases specialists will also have to face challenges with the infection during the neonatal period. Undoubtedly close monitoring of at-risk neonates is essential in the neonatal wards, but there are issues where evidence-based guidance is needed. The first priority is identifying the timing of infection (antenatally, perinatally or postnatally) and confirming its presence. Two recent reports from China suggest that in utero infection could be possible based on the measurement of IgM levels in neonates shortly after birth but no further confirmation of this with a positive reverse transcriptase–polymerase chain reaction test. Therefore, although in utero transmission is possible, larger studies on infected women will bring further insight in the field. In the case of in utero infected neonate, the timing of infection may have an impact on fetal development and possibly on long-term outcomes. We do not know as yet whether acquisition during first trimester of pregnancy is associated with birth defects and whether fetal infection is more likely in the advanced pregnancy stages following the patterns of other congenital infections. What we do know though is that antenatal infection with other coronaviruses (severe acute respiratory syndrome and Middle East respiratory syndrome) is associated with possible miscarriage, intrauterine growth retardation prematurity and low birth weight. Moreover, at present, we do not know how many molecular tests we need to perform and whether 2 tests are enough to rule out neonatal infection given that serology is not always reliable, as observed with other congenital infections. In addition to that, uncertainty exists as to whether respiratory specimens are enough or blood, stool or urine samples would offer more accurate results.

Last but not least separation of an infected mother from her offspring and feeding options are issues for further consideration. Some guidelines suggest complete separation of a COVID-19-positive mother and her baby for at least 14 days or until viral shedding clears, during which time direct breast-feeding is not recommended. On the other hand, the Centre for Disease Control and Prevention and the Royal College of Obstetricians and Gynaecologists recommend breast-feeding with strict contact precautions based on the fact that so far there is no evidence that the virus can be transferred via breast milk. For those women who are too sick to breast-feed, the recommendation is breast milk expression and avoidance of any contact with the baby.

In conclusion, the current pandemic poses several challenges to the pediatricians from the neonatal period throughout adolescence. Evidence-based recommendations are lacking at present, and future research in pediatric COVID-19 should also focus on neonates.

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REFERENCES

Demand for BCG Vaccine Due to Unproven Claims of its Role in Preventing COVID-19 Is Causing Shortages of Vaccines for Infants in Japan

To the Editors:

Coronavirus disease 2019 (COVID-19) originated in China and has rapidly spread worldwide. Currently, supportive therapy is the most effective treatment. Vaccination is one of the best options for the prevention of infectious diseases. However, a vaccine, as well as a specific proven treatment, remains elusive.

The Bacillus Calmette-Guérin (BCG) vaccine is administered to more than one million children annually in countries with a high prevalence of tuberculosis. Recently, researchers hypothesized that it might also combat COVID-19 because of its broad ability to stimulate the immune system. This is based on the fact that countries without universal policies of BCG vaccination (ie, Italy, the Netherlands, and the United States) have been more severely affected compared with countries with universal and long-standing BCG policies. Therefore, some researchers are investigating the vaccine’s effectiveness against COVID-19.

However, it should be emphasized that the causality is not yet proven; there is only one study predicting an association. Generally, to clarify the causality between two variables, the Bradford Hill criteria is used. To show the causality between the BCG vaccine and the severity of COVID-19, we have to confirm the following Bradford Hill criteria: specificity, temporality, reversibility, and experiment. Until the results of interventional studies are published, we cannot conclusively establish the utility of BCG against COVID-19.

However, many people have misinterpreted this association as causation. This excessive expectation increases individual desire to be vaccinated with BCG. This will cause a big problem for Japanese infants, who, owing to the shortage of BCG, may not get the necessary vaccination. Producing adequate amounts of BCG to meet demands besides that for infant vaccination will take half a year because, at present, only the amount necessary for use in infants is manufactured. Apprehension regarding BCG shortage led the Japanese Society for Vaccinology to officially state that it does not recommend the use of BCG vaccine for the prevention of COVID-19. However, under the current Japanese health care system, individuals willing to pay for individual vaccination cannot be prohibited from doing so. Therefore, emphasizing the lack of evidence and the cooperation of Japanese citizens is necessary. If infants in Japan do not receive BCG vaccines, tuberculosis might spread. We must prevent this from happening by publicizing inadequate evidence of causality between the BCG and prevention of the COVID-19. We also need to highlight the concern that a shortage of BCG would exacerbate the tuberculosis crisis among the infants in Japan.

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Letters to the editor
COVID-19 in the Pediatric Population
Admitted to a Tertiary Referral Hospital in Northern Italy:
Preliminary Clinical Data

To the Editors:

At the end of December 2019, the coronavirus disease 2019 (COVID-19) epidemic started in China and then expanded worldwide. Thereafter, many clinical studies have been reported, but most of them concerned the Chinese people. Clinical data regarding the Italian pediatric population are still lacking.

In February 2020, the COVID-19 pandemic flared up across Italy, the first cluster started in South-Lombardy, which is still the most affected area.1

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Key Words: COVID-19; age; gender; clinical severity; Northern Italy

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REFERENCES


8. Figures represent median values and figures in squared parentheses represent first and third quartiles.


10. Figures in round parentheses represent percentages.

11. The Pediatric Infectious Disease Journal • Volume 39, Number 7, July 2020

12. REFERENCES


