BACKGROUND

The measles virus is a risk for the central nervous system with neurological complications including measles encephalitis, acute disseminated encephalomyelitis, inclusion body encephalitis and subacute sclerosing panencephalitis (SSPE), all serious conditions likely to cause long-term consequences. SSPE is the most chronic and severe complication and often underdiagnosis and underreported.

The International Child Neurology Association (ICNA) initiated a registry in February 2020 to;

- increase awareness about neurological complications of measles,
- understand epidemiological and regional trends,
- form a network of clinicians, promote knowledge and collaboration for future research about measles and its neurological complications.

A REDCap-based registry - to collect data from pediatric neurologists on neurological complications of measles from February 2019 to February 2022. The registry was announced through; – ICNApedia - invitation letters to pediatric neurologist who lives in countries where the measles cases are common, or a recent measles outbreak has occurred.

Anonymized data was collected through a questionnaire from pediatric neurologist who had seen a case with neurological complications of measles in defined period.

Global burden of measles: A registry of neurological complications

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MATERIALS AND METHODS

RESULTS

Characteristics	
SSPE	9 (F/M=3/6)
Other neurological complications	None
Mean age at	
onset of SSPE	6.2 years
diagnosis of SSPE	6.4 years
Prior measles infection history	7/9
Mean age at measles infection	0.8 years
Unvaccinated patients	6/9
Symptoms	
Behavioural changes	8/9
Myoclonus	8/9
Seizures	7/9
Nasogastric or G tube feeding	6/9
Non-invasive respiratory support	2/9
Treatments	
IVIg	8/9
Isoprinosine	6/8
Interferon	3/7
Hospitalization (duration)	6/9, (45 days, mean)
Intensive care unit	2/6
Outcome	
Cognition severely affected	9/9
Bedridden	7/8
Quality of life	
Very poor	9/9

Table. Demographic, clinical and outcome characteristics of patients

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DISCUSSION and CONCLUSION

SSPE is the most disabing neurological complication of measles virus assoc.with low quality of life for patients and caregivers. Increasing vaccination coverage rates is essential To reduce the global burden of measles. Unfortunately, routine pediatric vaccination coverage decreased worldwide during the COVID-19 pandemic (1). On the other hand knowledge on the pathogenesis of viral infections, antiviral immunity, and antiviral drugs expanded during this period. The overall result of these developments on the global burden of measles on public health can only be assessed throguh up-todate clinical data and application of new knowledge to old disorders..

REFERENCES

1- Anita Shet, Kelly Carr, M Carolina Danovaro-Holliday et al. Impact of the SARS-CoV-2 pandemic on routine immunisation services: evidence of disruption and recovery from 170 countries and territories. Lancet Glob Health 2022; 10: e186– 94

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