

research snapshot

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Is Cerebral Palsy Affected by Other Conditions That Occur Before or During Birth?

What is this research about?

The causes and influences on the development of cerebral palsy (CP) are not clearly known at this time. One condition that is thought to be connected with CP is neonatal encephalopathy (NE). There was a time when it was believed that lack of oxygen during birth was the main cause of both of these conditions. This factor has been proven to be only a cause in a minority of cases. When CP is caused by a lack of oxygen during birth NE often bridges these conditions. It has been suggested that this sequence of conditions leads to more severe cases of CP. To explore this possibility, the researchers explored the difference between CP when NE is present and when it is absent.

What did the researchers do?

With the use of data from the Quebec Cerebral Palsy Registry, 132 cases were selected. To be considered, the cases had to meet the following criteria: be born between 1999 and 2002, born after 37 weeks, and be diagnosed with CP. The severity of the CP diagnosis was assessed with the Gross Motor Function Classification System. It was noted if the case was diagnosed with any of the following conditions: blindness, hearing

What you need to know:

The cause and influences of cerebral palsy (CP) are not clearly known. This research explores one of the factors that is suspected of creating severe CP. It also highlights where the next steps in research must go for practical information that will influence diagnosis and treatment.

impairments, communication difficulties, need for gavage feedings, and epilepsy. Intellectual disabilities could not be assessed due to the age of the individuals (either age 2 or 5) when the cases were filed. 44 of the cases experienced NE. These cases were included no matter the cause of NE. 4 separate statistical analysis tools were used to assess the impact of NE and other conditions on the severity of CP.

What did the researchers find?

In cases where NE was present, there was a statistical significance of CP being connected with communication difficulties. Although there were more cases of other conditions connected with CP when NE was present, this was not found to be statistically significant over cases when NE was not present. It was suggested that

combining the moderate and severe NE groups could have had an impact on the results. A larger study that could include mild, moderate, and severe NE in separate groups to be compared to CP with other issues would produce clearer results on the impact of NE on CP.

How can you use this research?

Policymakers will learn about the importance of completing larger research in the area of how NE affects the severity of CP. Gaining knowledge on how these 2 conditions influence each other will help improve diagnosis, and optimize treatment.

Practitioners will begin to understand the complexity of factors that influence the severity of CP and how CP manifests. This knowledge will help when developing and implementing treatment.

About the Researchers

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Cerebral palsy, Neonatal encephalopathy

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