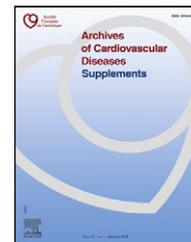




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## Communications Orales

Judi 12 septembre de 11h à 12h30

CO 1

### Screening for neurodevelopmental disorders in children with congenital heart disease



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**Background** Neurodevelopmental disorders (NDD) are the most common, and potentially the most damaging sequelae in children with congenital heart disease (CHD) [1]. All areas could be affected impacting social adaptation, academic achievements, and quality of personal and family life even in adulthood. In our region, there is currently no specific additional follow-up for children with CHD.

**Aims** The objective was to assess the frequency of NDD in children with « significant » CHD (mild and moderate operated CHD, severe CHD), associated factors and frequency of follow-up in developmental therapies.

**Methods** This is a prospective observational study on children with significant CHD aged from 6 to 66 months conducted over a period of 6 months. Ages & Stages Questionnaire in French, Third Edition (ASQ-3) was used to screen neurodevelopmental domains. NDD were defined as cut-off scoring  $\leq 1$  SD below the normative mean.  $-1$  SD corresponding to « Monitor » range: children with minor or emerging disorders;  $-2$  SD corresponding to « Refer » range: children exhibiting neurodevelopmental delays. Socio-medico-surgical data were collected to assess associated factors and follow-up in developmental care services.

**Results** Among the 210 included children, the rate of NDD was 60,0% ( $n = 126$ , 95%CI(53.4 - 66.6)). 40 children were in « Monitor » range, and 86 in « Refer » range. There was no difference regarding the severity of CHD ( $P = 0.99$ ). Only presence of comorbidities

(OR=2.1; 95%CI(1.1 - 4.2);  $P = 0.02$ ) was a significant associated factor of NDD in multivariate backward logistic regression analysis. 46 children with NDD had no follow-up in developmental services (among them 21 were in « Refer » range) despite provision of pathway of care for children with NDD.

**Conclusion** Children with CHD are at risk for NDD regardless of the severity of the CHD. Systematic and early monitoring in a specific program of care is necessary for all children with CHD for a better long-term prognosis.

**Keywords** Congenital Heart Disease; Neurodevelopmental disorders; Children; Outcome; Comorbidities

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**Disclosure of interest** The authors declare that they have no competing interest.

#### Reference

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**Abbreviations:** CHD, Congenital Heart Disease; NDD, Neurodevelopmental Disorders.

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