Multicenter registration for fetal echocardiography in Japan

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Purpose
Nation wide multicenter registration for fetal echocardiography leading definitive diagnosis, not screening, was started in September 2004 in Japan. Japanese Society of Fetal Cardiology endorsed the registration and performs a key role for understanding and investigation of the current situations of fetal heart disease (FHD).

Subject & Methods
Totally 58,792 on-line registrations for the definitive diagnosis using fetal echocardiography enrolled from 1 October 2004 to 31 December 2018 from more than 100 institutions. We investigated the annual changes of the number of registrations, the number of registrations in each prefecture, classification of diseases and the number of each disease.

Results

\begin{itemize}
  \item Among the arrhythmia (3040 exams), there were 1339 exams of PAC, 397 of complete atrioventricular block, 229 of PSVT, 163 of Atrial & AA.
  \item CHD registrations, which are easy to find by the four-chamber view, were tended to be majority. dTGA, Simple CoA, IAA, and TAPVC were minority. But, in recent years, the detection of dTGA, Simple CoA, IAA, and TAPVC, might increase.
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  \item JSFC: Japanese society of fetal cardiology
  \item JSPCCS: Japanese society of pediatric cardiology and cardiac surgery
\end{itemize}

Summary
\begin{itemize}
  \item The number of registrations increased year by year. From 2017, over 10,000 examinations were registered.
  \item By prefecture, there were 9,015, 7,140, 5,333 and 3,100 registrations in Tokyo, Osaka, Kanagawa and Nagano, respectively.
  \item As for the classification of diseases, 21,860 exams were reported as a congenital heart defect, which accounted for 37%.
  \item The CHD registrations, which are easy to find by the four-chamber view, were tended to be majority. dTGA, Simple CoA, IAA, and TAPVC were minority. But, in recent years, the detection of dTGA, Simple CoA, IAA, and TAPVC, might increase.
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Conclusion
Nowadays, the number of registrations tended to rapidly increase, nearly 60,000 registrations were achieved. Many of the diseases could be detected in four chamber view easily by screening. But, the detection of diseases, that are difficult to screening, are increasing gradually. This registration is important data base that contribute efforts of JSFC to construct effective educational and enlightening system for improvement of accuracy of definitive diagnosis of FHD.