

MP4-10

Antenatal Detection of d-Transposition of the Great Arteries (d-TGA) and Impact of Standardised Fetal Heart Screening in Queensland Over A Ten Year Period

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Aims:

Dextro-Transposition of the Great Arteries (d-TGA) is known to be one of the more difficult diagnoses to make on antenatal ultrasound screening. We aimed to examine the rates of antenatal diagnosis of d-TGA overall in Queensland, and more specifically in metropolitan Brisbane versus regional Queensland over a ten year period and to assess the impact of targeted antenatal screening education on these rates.

Methods:

Data was collected retrospectively from hospital records. All patients diagnosed with d-TGA either antenatally or postnatally in Queensland between July 2008 to December 2017 were included. The patients were divided into two cohorts to assess antenatal detection rates in the pre- and post- education eras (2008-2011 versus 2012-2018), and into metropolitan versus regional groups to examine the impact on antenatal detection rates in the different settings.

Results:

128 neonates were identified with a diagnosis of d-TGA. The overall antenatal detection rate from July 2008 to December 2017 was 61.7%. From 2008 to 2011 (n=47) the overall detection rate was 48.9%, compared to 69.1% in the 2012 to 2018 group (n=81). When analysed as regional Queensland (n=73) versus metropolitan (n=55) groups across the two time periods, the regional Queensland detection rate increased from 35.7% to 59.1%, while the metropolitan detection rate increased from 68.4% to 81.1%.

Conclusions:

Rates of antenatal diagnosis of d-TGA in Queensland compare favourably with internationally published rates, although there remains difficulty in consistently diagnosing this lesion. Targeted education of sonographers performing antenatally screening, in particular in regional areas, appears to contribute to an increase in diagnostic rates.