STUDY OF ECHOCARDIOGRAPHIC PARAMETERS OF CARDIAC FUNCTION IN CHILDREN WITH GROWTH HORMONE DEFICIENCY BEFORE AND DURING TREATMENT

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Aims The aim of the study was to evaluate the effects of the growth hormone deficiency (GHD) and growth hormone (GH) therapy on cardiac function

Methods A prospective cohort study was conducted using M-Mode Doppler echocardiography and tissue Doppler imaging which were performed on 12 children with GHD (seven male and 5 female patients, aged 8 to 108 months) at baseline and 3 and 6 months after the GH therapy.

Results Significant decrease in peak mitral and interventricular septum A-wave velocities were observed during the study (Mitral A-wave: 0.098±0.044 m/s to 0.070±0.025 m/s [P=0.04] and septum A-wave: 0.082±0.033 m/s to 0.066±0.022 m/s [P=0.017]). There were significant statistical differences of parameters, the E/A ratio for mitral valve significantly decreased (0.690 ± 0.364 to 0.456 ± 0.235 [P=0.008]) but the E/A ratio for tricuspid valve significantly increased (1.182 ± 0.418 to 1.688 ± 0.724 [P=0.023]). Furthermore, the tricuspid E/A ratio decreased from 0.835±0.122 to 0.711±0.135 [P=0.028]. There were no significant differences in global systolic function with the fractional shortening of the left ventricle and the ejection fraction decreasing from 36.9 ± 3.8 to 36.3 ± 2.6 % and (68.5 ± 4.9 to 68 ± 4.1)% respectively.

Conclusion The results of this study indicated that GHD in children was not associated with a significant difference in systolic ventricular function. However, subclinical diastolic myocardial dysfunction was found in GH-deficient children during GH therapy.

IMPROVING PARENTAL COMMUNICATION IN THE LATE DIAGNOSIS OF CONGENITAL HEART DEFECT

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Aims Although majority of significant CHDs (congenital heart defects) are diagnosed antenatally, we still find occasional significant CHDs diagnosed postnatally. These present challenges to the paediatrician as it is a breaking bad-news scenario. We wanted to explore whether there were areas of particular concern that needed focus from parental perspective.

Methods We interviewed 2 set of parents of children recently diagnosed with significant CHD late. We used a structured questionnaire to get in-depth understanding of the parental circumstances.

Results Patient A was diagnosed at 14months with TAPVD. Patient B was diagnosed at 13months with AVSD. She also presented to the DGH with respiratory symptoms. She was noted to have a gallop-rhythm and a palpable liver. The mothers of both patient A and B felt shocked and worried at the news of CHD in their child but also felt the news was broken to them well avoiding medical-jargon, use of diagrams, the doctor was patient and they both thought the news couldn’t have been broken to them in a better way. Although patient A’s mother had some initial weight concerns but then felt herself and father had a small stature and this could be hereditary. There was no follow-up from the health visitor from age 16weeks to diagnosis and patient A’s mother felt if there had been a follow-up from the health-visitor, it might have triggered an earlier diagnosis of CHD. Patient B’s mother had a perception that since she had a consultant-led delivery and more antenatal-scans, the CHD should have been detected antenatally. Patient B’s mother felt there should be some provision for parents in a similar situation with COVID restrictions in the hospital as only one parent was allowed and she needed her partner at this time and felt she needed to go out for a cry but couldn’t due to the restrictions. Patient B’s mother wasn’t happy with the follow-up after diagnosis to time of surgery. They were informed the surgery was within days and then it was moved with no follow-up in the local DGH.

Conclusion Not all CHDs are picked up antenatally as they could sometimes be difficult to detect. Late diagnosis of CHDs is traumatising for parents and is a form of breaking bad-news. Parents often want to know why the diagnosis wasn’t detected earlier. The diagnosis needs communication in an empathetic manner with adequate support from members of staff and possibly with both parents present for each other. Parents would also benefit from local liaison cardiac-nurse specialists who could help with providing communication channels following discharge relating to follow-up arrangements, medications, monitoring and ongoing queries.

CARDIAC MASSES IN CHILDREN- A RARE CASE OF PRIMARY CARDIAC STAGE III BURKITT LYMPHOMA

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Aims The unexpected diagnosis of bilateral large atrial masses in a child presenting to a DGH, later confirmed to have a very rare etiology, prompted literature review of cardiac tumours in paediatrics, their complications and prognosis.

Methods A 9-year-old girl presented to local hospital with 7-week history of migraine, and in the last week, reduced exercise tolerance, dyspnoea and abdominal swelling. On examination there was abdominal distension with shifting dullness, hepatomegaly, soft systolic murmur at LLSE. Abdominal USS confirmed ascites and dilated IVC. ECHO demonstrated 3 heterogenous mobile masses, 2 in the left atrium and 1 in the right atrium, with bilateral inflow obstruction and circumferential pericardial effusion (figure 1). In the tertiary centre, she underwent surgical resection. The masses were irregular and encased in a gelatinous capsule which was friable (figure 2).

Histology confirmed Burkitt Lymphoma. Chemotherapy was commenced.