Abstract: 6133
Profile of cardiomyopathy patients in Cape Town - pilot phase the IMHOTEP Study

Authors:
SM Kraus\textsuperscript{1}, P Samuels\textsuperscript{1}, N Laing\textsuperscript{1}, M Ntsekhe\textsuperscript{1}, A Chin\textsuperscript{1}, SM Moosa\textsuperscript{1}, K Sliwa\textsuperscript{1}, N Ntusi\textsuperscript{1}, \textsuperscript{1}University of Cape Town - Cape Town - South Africa,

Topic(s):
Chronic Heart Failure – Diagnostic Methods: Imaging

Citation:

Funding Acknowledgements:
NEWTON FUND NON-COMMUNICABLE DISEASE - South African Medical Research Council (SAMRC/GSK)

Background. Cardiomyopathies pose a great challenge because of poor prognosis and high prevalence in LMIC with limited access to specialised care. Little is known about the clinical profile of cardiomyopathy in Africa.

Purpose. Delineation of clinical presentation and cardiovascular magnetic resonance (CMR) phenotypes of cardiomyopathy.

Method. The African Cardiomyopathy and Myocarditis Registry Program (IMHOTEP) is a prospective multi-centre, hospital-based study and aims to investigate the clinical characteristics, aetiology, genetics, management and outcomes of cardiomyopathies in Africans.

Results. Assessment of the first 99 adult cases showed that dilated cardiomyopathy (DCM; n=67) was commonest, followed by hypertrophic (HCM; n=13), left ventricular noncompaction (LVNC; n=11), restrictive (RCM; n=4) and arrhythmogenic (ARVC; n=4) cardiomyopathies. Idiopathic DCM (22%) and peripartum cardiomyopathy (16%) accounted for the majority (Figure). A family history of cardiomyopathy or SCD was reported in 20% of cases. Mean age of presentation was 37 ± 12 years. Most patients (96%) were symptomatic at presentation. NYHA class III/IV was more frequently seen in DCM (61%), RCM (50%) and LVNC (64%), whereas syncope was more common in ARVC (50%) and HCM (23%). VT and aborted cardiac arrest were reported in 7% and 3%, respectively. Onset of symptoms in the peripartum period was observed in 47% of women. Beta-blockers and ACE-inhibitors were prescribed in 77% and 78%, respectively, however optimal dosing was achieved in =14% of patients at a median time of 5.4 months after symptom onset. CMR was performed in 67 (68%) cases (Table) and contributed diagnostically in a third of cases. Late gadolinium enhancement (LGE) was observed in 92%. In DCM, linear mid-wall and subendocardial patterns of LGE were seen in 95% and 8% of patients respectively – a much higher percentage than previously reported in the literature.

Conclusion. IMHOTEP is the first multi-centre registry for cardiomyopathy in Africa. Preliminary data suggests an earlier age of onset with female predominance compared to other cohorts, and DCM is the predominant form of cardiomyopathy in Africa.

<table>
<thead>
<tr>
<th></th>
<th>DCM, n=38</th>
<th>HCM, n=11</th>
<th>ARVC, n=3</th>
<th>RCM, n=4</th>
<th>LVNC, n=11</th>
</tr>
</thead>
<tbody>
<tr>
<td>LVEF (%)</td>
<td>27 ±15</td>
<td>78 ±7</td>
<td>55 ±5</td>
<td>52 ±7</td>
<td>32 ±17</td>
</tr>
<tr>
<td>LVEDV/BSA (ml/m2)</td>
<td>150 ±40</td>
<td>80 ±17</td>
<td>98 ±12</td>
<td>59 ±13</td>
<td>155 ±52</td>
</tr>
<tr>
<td>LV mass/BSA (g/m2)</td>
<td>82 ±23</td>
<td>102 ±35</td>
<td>74 ±3</td>
<td>71 ±14</td>
<td>88 ±31</td>
</tr>
<tr>
<td>RVEF (%)</td>
<td>34 ±15</td>
<td>68 ±10</td>
<td>22 ±15</td>
<td>49 ±18</td>
<td>33 ±15</td>
</tr>
</tbody>
</table>

All continuous variables presented as mean ± standard deviation
Abstract: 6133
Profile of cardiomyopathy patients in Cape Town – pilot phase the IMHOTEP Study

Authors:
SM Kraus1, P Samuels1, N Laing1, M Ntsekhe1, A Chin1, SM Moosa1, K Sliwa1, N Ntusi1

1University of Cape Town – Cape Town – South Africa,

Topic(s):
Chronic Heart Failure – Diagnostic Methods: Imaging

Citation:

Funding Acknowledgements:
NEWTON FUND NON-COMMUNICABLE DISEASE – South African Medical Research Council (SAMRC/GSK)

Background. Cardiomyopathies pose a great challenge because of poor prognosis and high prevalence in LMIC with limited access to specialised care. Little is known about the clinical profile of cardiomyopathy in Africa.

Purpose. Delineation of clinical presentation and cardiovascular magnetic resonance (CMR) phenotypes of cardiomyopathy.

Method. The African Cardiomyopathy and Myocarditis Registry Program (IMHOTEP) is a prospective multi-centre, hospital-based study and aims to investigate the clinical characteristics, aetiology, genetics, management and outcomes of cardiomyopathies in Africans.

Results. Assessment of the first 99 adult cases showed that dilated cardiomyopathy (DCM; n=67) was commonest, followed by hypertrophic (HCM; n=13), left ventricular noncompaction (LVNC; n=11), restrictive (RCM; n=4) and arrhythmogenic (ARVC; n=4) cardiomyopathies. Idiopathic DCM (22%) and peripartum cardiomyopathy (16%) accounted for the majority (Figure). A family history of cardiomyopathy or SCD was reported in 20% of cases. Mean age of presentation was 37 ± 12 years. Most patients (96%) were symptomatic at presentation. NYHA class III/IV was more frequently seen in DCM (61%), RCM (50%) and LVNC (64%), whereas syncope was more common in ARVC (50%) and HCM (23%). VT and aborted cardiac arrest were reported in 7% and 3%, respectively. Onset of symptoms in the peripartum period was observed in 47% of women. Beta-blockers and ACE-inhibitors were prescribed in 77% and 78%, respectively, however optimal dosing was achieved in =14% of patients at a median time of 5.4 months after symptom onset. CMR was performed in 67 (68%) cases (Table) and contributed diagnostically in a third of cases. Late gadolinium enhancement (LGE) was observed in 92%. In DCM, linear mid-wall and subendocardial patterns of LGE were seen in 95% and 8% of patients respectively – a much higher percentage than previously reported in the literature.

Conclusion. IMHOTEP is the first multi-centre registry for cardiomyopathy in Africa. Preliminary data suggests an earlier age of onset with female predominance compared to other cohorts, and DCM is the predominant form of cardiomyopathy in Africa.

All continuous variables presented as mean ± standard deviation