**HFpEF in humans and mice: Embracing clinical complexity in mouse models**

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REVIEW

Short title: HFpEF in humans and mice

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**SUPPLEMENTAL TABLE 1**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Validation of HFpEF large animal models by HFA-PEFF and H2FPEF scores** | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Model** |  |  | **Pre-test assessment of sign and symptoms and biological factors (age and sex)** | | | | | | | |  | **HFA-PEFF score** | | | | | |  |  |  | **H2FPEF score** | | | | | |  |  |
|  |  |  | **Sex** | **Age (months)** | **Lung congestion** | **Impaired Exercise capacity** | **Comorbidity burden** | | | |  | **Functional aspects** | **Morphological aspects** | | | | **Increased natriuretic peptides** |  | **Total points** |  | **Obesity** | **Hypertension** | **Atrial Fibrillation** | **Pulmonary hypertension** | **Age** | **Diastolic dysfunction** |  | **Total points** |
|  |  | **Preserved EF** | **Hypertension** | **Obesity** | **T2DM** | **Renal Dysfunction** |  | **Diastolic dysfunction** | **left atrial enlargement** | **LV mass** | **Increased wall thickness** | **Concentric hypertrophy** |  |  |  |  |  |  |  |  |  |  |  |
| **Western diet and DOCA pig** |  | yes | f | 14 | yes | N/A | yes | yes | yes | yes |  | yes | yes | yes | yes | yes | N/A |  | **4** |  | yes | yes | N/A | yes | no | yes |  | **5** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Western diet, DOCA and angiotensin-II pig** |  | yes | m | 4 | N/A | N/A | yes | yes | no | N/A |  | yes | yes | yes | yes | yes | yes |  | **6** |  | yes | yes | N/A | yes | no | yes |  | **5** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Western diet and aortic banding ossaba swine** |  | yes | m | 12 | yes | N/A | no | yes | N/A | yes |  | yes | yes | yes | yes | yes | yes |  | **6** |  | yes | no | N/A | N/A | no | yes |  | **3** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Aortic stent/cuff pig** |  | yes/no | m | 5 | yes | N/A | yes | no | no | no |  | yes | yes | yes | yes | yes | yes |  | **6** |  | no | yes | N/A | yes | no | yes |  | **3** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **ZSF1/obese rat** |  | yes | m/f | 3-6 | yes | yes | yes | yes | yes | yes |  | yes | yes | yes | yes | yes | yes |  | 6 |  | yes | yes | N/A | yes | no | yes |  | **5** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Sub-total nephrectomy rat** |  | yes/no | m | 3 | yes | yes | yes | no | no | yes |  | yes | N/A | yes | yes | yes | yes |  | **6** |  | no | yes | N/A | N/A | no | yes |  | **2** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Dahl salt sensitive/obese rat** |  | no | m | 2 | yes | N/A | yes | yes | N/A | yes |  | yes | N/A | yes | yes | yes/no | N/A |  | **4** |  | yes | yes | N/A | N/A | no | yes |  | **4** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Fisscher 344 rat** |  | yes | f | 18 | yes | N/A | no | no | N/A | N/A |  | no | N/A | yes | yes | yes | N/A |  | **2** |  | no | no | N/A | N/A | yes | no |  | **1** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **(DOCA) salt-induced rat** |  | yes | m | 3 | yes | N/A | yes | no | N/A | N/A |  | yes | yes | yes | yes | yes | N/A |  | **4** |  | no | yes | N/A | N/A | no | yes |  | **2** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Old hypertensive dog (renal wrapping)** |  | yes | f | 120 | N/A | N/A | yes | no | N/A | N/A |  | yes | yes | yes | yes | yes | N/A |  | **4** |  | no | yes | N/A | N/A | no | yes |  | **2** |

**Supplemental table 1.**

Large heart failure animal models are scored for signs and symptoms or clinical HFpEF features, included age, sex, as well as cardiac and extra-cardiac domains of HFA-PEFF and HF2PEF scores. T2DM, Type 2 Diabetes Mellitus; DOCA, DeOxyCorticosterone Acetate; EF, Ejection fraction; m/f, male/female; N/A, not assessed.