SUPPLEMENTARY METHODS

Johns Hopkins and Dutch ARVD/C Registries:

The study population was ascertained from the Johns Hopkins and Interuniversity Cardiology Institute of the Netherlands (Dutch) ARVD/C registries. Both registries were designed to identify, characterize, and prospectively follow patients with arrhythmogenic right ventricular dysplasia/cardiomyopathy (ARVD/C) and their at-risk family members. Over the past 3 years procedures for data collection, analysis, and adjudication have been standardized between the two registries resulting in several publications. Definitions of the phenotypic and cardiac outcome variables are described in these papers [1-3]. There remain differences in how patients are enrolled into the Johns Hopkins and Dutch ARVC Registries, however, which are relevant to ascertainment of women in this study.

The Johns Hopkins ARVD/C Registry was established in 1999. Individuals with a suspected diagnosis of ARVD/C and their at-risk family members are recruited through three primary sources: 1) Patients or family members of patients who come to the Johns Hopkins ARVD/C program for cardiac care or genetic counseling, 2) individuals who contact the Johns Hopkins ARVD/C program directly expressing an interest in participating in ARVD/C research, 3) attendees at our the annual ARVD/C Family Seminar. Our participants live across North America. Following enrollment cardiac medical records are collected and adjudicated. Participants are contacted annually and updated medical records are collected, abstracted, and adjudicated. In their responses to our regular Johns Hopkins ARVD Registry follow-up questionnaires, enrollees report cardiac events, update family history and medication, etc. However, these responses serve as a prompt to collect medical records. All patient responses are verified by review of medical records.

The Dutch Interuniversity Cardiology Institute of the Netherlands (ICIN) ARVC Registry was established in 2000. ICIN is a cardiovascular research institute with collaborative participation of all 8 Dutch University Medical Centers. Based on national policy, patients are not directly approached to join the registry, rather patients seen for cardiac care in one of the participating centers are assumed to have given implied consent for Registry-based studies. This protocol precludes direct contact between investigators and patients. For the registry, medical records from the participating centers are abstracted and adjudicated. All follow-up data is collected directly from the medical record as the patients return for continuing care.

Genotyping of Johns Hopkins and ICIN ARVD/C Registry Enrollees:

Family history is collected based on construction of pedigrees by geneticists and genetic counselors with expertise in ARVD/C. For the purpose of the joint Registry, the proband is defined as the first person in a family in whom ARVD/C diagnosis was confirmed. Genotype of probands is derived from direct sequencing of the desmosomal genes (*PKP2* encoding plakophilin-2, *DSG2* encoding desmoglein-2, *DSC2* encoding desmocollin-2, *DSP* encoding desmoplakin, *JUP* encoding junctional plakoglobin*)* and the *PLN*-gene which encodes phospholamban through either our research [4-5] or commercially available testing. Family members are typically genotypes only for mutations identified in the family proband.

Pregnancy study population ascertainment:

As shown in Figure 1, we identified participants for this study from the joint Johns Hopkins and Dutch ARVD/C Registries. The three largest ICIN centers participated in this study (University Medical Center Utrecht, Academic Medical Center Amsterdam, and University Medical Center Groningen.) For the purposes of ascertainment we defined "ARVD/C diagnosis" as date of fulfillment of 2010 ARVD/C diagnostic Task Force Criteria [6].

As laid out in Figure 1, the following groups of ARVD/C Registry enrollees were excluded from this study:

- Males
- Individuals who did not meet 2010 Task Force Criteria at last follow-up (eg. at-risk family members) and cases initially ascertained via autopsy review (without any prior cardiac testing available).
- Women who did not meet 2010 Task Force Criteria while of childbearing age (considered 15-45)
    - ARVD/C diagnosis when older than age 45
    - Girls with ARVD/C who had not yet turned 15 at last follow-up
- Childbearing-aged ARVD/C female ARVD/C patients for whom date/age of diagnosis and/or parity at last follow-up could not be established based on review of the medical record. (This was primarily an issue for Dutch patients.)
- Women with ARVD/C who had an ongoing pregnancy

The final study population included 143 women affected with ARVD/C while childbearing aged (15-45), 26 of whom experienced at least one pregnancy lasting beyond the first trimester (Figure 1). The majority of pregnancies (26/39, 67%) occurred after the patient's enrollment into the Johns Hopkins or Dutch ARVD/C registry. Thus, while most data was collected prospectively, some was collected retrospectively.

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