1. Errors in use of English
   Grammar, syntax (but nothing so serious that it makes the text hard to understand)

2. Technical editing, copyediting and proofreading errors
   Don’t assume the journal will do good copyediting for you to achieve “good scientific English style.”

3. Errors in writing (logical connection between ideas or topics, transition between paragraphs, statements made with confidence versus suggested explanations for readers to consider)
   Introduction and Discussion more likely to have writing problems than Methods and Results

4. Errors in scientific thinking (reporting errors, overgeneralization, conclusions not based on data reported, confusion, insufficient knowledge of the subject)
   Questions about statistical analysis
   Inconsistent reporting of P values
   Conclusions not based on data in this study
   Data for one group borrowed from a previous publication

Conclusion: Fatal flaws in thinking and reporting, possible problems with the data and statistical analysis, inadequate editing (discrepancies between information in the Abstract and the text, a large part of the data taken from another study, i.e., the content is not entirely original).

Who does the publication of articles like this benefit? Even if it leads to academic promotion, does it actually help patients?

Who is responsible for fixing style, grammar, writing and scientific errors? The authors should be prepared to accept responsibility for and take steps to avoid all types of errors, not just scientific errors.

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Comparison of the extent, severity and risk factors in middle-aged women from Jupiter and Saturn: Ethnic gap in coronary artery disease

ABSTRACT
1. The authors examined [compared] risk factors and [the] extent [severity] of coronary artery disease (CAD) among [between] Saturnian and Jupiterian women in Cloudy Plains, where Jupiterian women were found to have [a] worse outcome [more unfavorable profile? a higher risk of CAD?]

All angiographically confirmed cases of CAD among women aged 45 to 65 years who were hospitalized during 1990 to 1995 consisted of 40 Jupiterian and 179 Saturnian patients.

The participants were a total of 40 Jupiterian and 179 Saturnian women aged 45 to 65 years with angiographically confirmed CAD who were hospitalized during 1990 to 1995.

2. Jupiterian women had more atypical clinical presentations (P<.0001) and more extensive [severe] CAD (P=.0016) despite [their] younger age (53±3 vs 55±5 years;
Coronary artery disease (CAD) is the leading cause of death in postmenopausal women in the United States, accounting for nearly 50% of all deaths, as it is in Saturn and many other countries. Approximately twice as many women die of cardiovascular disease than of cancer.

To consider the possibility of CAD in older women with multiple risk factors and typical chest pain is the rule, whereas CAD is less likely to be considered when encountering younger women with atypical clinical presentations, and the possibility of CAD is all too frequently overlooked.

In women with atypical clinical presentations, the possibility of CAD is normally considered in older women with multiple risk factors, whereas it is less likely to be considered in younger women, in whom the possibility of CAD is all too frequently overlooked.

In our emergency and internal medicine departments, it is not uncommon for a Jupiterian woman to present with atypical symptoms and be found to have extensive CAD. Indeed, it was observed that in Cloudy Plains, CAD mortality rates of Jupiterian women are higher not only than that of Saturnian women but even than that of Saturnian men. There is also evidence from the Secondary Prevention Reinfarction Saturnian Nifedipine Trial (SPRSNT) that among survivors of myocardial infarction (MI), the long-term prognosis in Jupiterian women is much worse than that of their Saturnian counterparts. Similarly, mortality from stroke, another atherosclerotic disease, is also remarkably declining less in Jupiterian than in Saturnian persons, particularly in women.

According to findings from the Framingham Study, identifiable risk factors have the strongest predictive value in middle-aged women. The prevalence and extent of well-recognized coronary risk factors such as hypertension, diabetes mellitus, dyslipidemia, cigarette smoking, a family history of premature disease, and lifestyle characteristics may differ between the populations and explain different outcomes.
The purpose of this study was to characterize CAD and its risk factors among middle-aged Jupiterian and Saturnian women residing in the same area. This could enable us to better identify women at risk for CAD and ultimately develop a multidisciplinary preventive strategy. Nothing in the Introduction suggests evidence that increased knowledge of CAD risk will allow researchers to develop “multidisciplinary” preventive strategies. ALT: and ultimately develop more effective preventive strategies for younger women in whom CAD may be overlooked.

Patients and Methods
The study population consisted of female patients aged 45 to 65 years and residing in Cloudy Plains who were hospitalized in Saturn Ring University Hospitals (both Outer Ring and Cloudy Plains campuses) during the years 1990 to 1995, with a diagnosis of angiographically confirmed CAD. The study population included 179 Saturnian and 40 Jupiterian women. All but 2 of the Saturnian women were admitted for acute coronary syndrome; about 80% were admitted for MI. Angiography was decided upon by the clinical judgment of the attending physicians. The decision to use angiography was made by the attending physician based on his or her clinical judgment. Data regarding medical background, outcomes of coronary angiography, the performance and outcomes of percutaneous transluminal coronary angioplasty (PTCA) and coronary artery bypass grafting (CABG), and previous angiography or other previous procedures were available for the study groups. But the outcomes of treatment are not reported or discussed in this paper. All angiographic findings were evaluated by experienced attending physicians, who also made the decision, when necessary, about PTCA. In cases in which PTCA was not feasible or was judged inferior to CABG, the latter form of revascularization was decided together with attending cardiac surgeons. The severity of CAD was assessed by analyzing the data derived from coronary angiography, according to the following criteria: (1) the number of main coronary arteries with stenosis of 80% or more (the 80% occlusion cutoff was chosen to enable us to compare the results of our previous study); (2) the number of arteries that underwent PTCA; and (3) the number of arteries that underwent CABG, as described previously. Women with less than 80% stenosis were considered as having nonsignificant CAD.

Data on blood pressure, diabetes, lipids, weight, and physical activity were retrieved from medical records of participants under examination. The 2 groups were compared with respect to discrete variables by the chi-squared test. Fisher's exact test was employed in cases of small numbers, when the number of data was small. Two-tailed \( P < .05 \) [A value of \( P < .05 \) in the two-tailed test] was considered significant. ??Statistical review needed??

Results
The study group included 179 Saturnian women aged 55±5 years and 40 Jupiterian women aged 53±3 years (\( P < .0003 \)). [If the difference in age between groups was significant, can the two groups really be compared? Is the difference really statistically significant?] The clinical presentation of CAD differed between the Jupiterian and Saturnian women. Atypical chest pain and dyspnea were reported in 70% of the women.
Jupiterian women and 31% of Saturnian women ($P < .0001$); the odds ratio (OR) for typical chest pain in the Jupiterian women was 0.18, with a 95% confidence interval (CI) of 0.09 to 0.39. However, no significant differences were found regarding the presence of MI at presentation: 82% of the Jupiterian vs 77% of the Saturnian women had experienced such an event ($P = 1.00$).

All patients underwent coronary angiography. No differences were found with regard to revascularization procedures such as PTCA and CABG; PTCA was performed in 57.5% of the Jupiterian patients and 62.5% of the Saturnian patients, and CABG was performed in 37.5% of the Jupiterian patients and 32.5% of the Saturnian patients. [This information should be reflected in Table I.] Overall, revascularization procedures were performed in about 95% of the patients in both groups. No difference was observed between the groups regarding the number of coronary arteries that underwent PTCA, with a frequency of use of PTCA for multiple arteries (43% vs 30%; $P = .4$); Jupiterian women were more likely to have CABG for double- or even single-vessel disease, whereas most Saturnian women had multiple-vessel bypass ($P = .022$; Table I). [P value is inconsistent with Table I.] Twenty-five percent of Saturnian women had nonsignificant coronary artery stenosis, whereas only 5% of their Jupiterian counterparts had such a result [whereas this result was found in only 5% of] ($P = .0047$). The OR for nonsignificant coronary artery stenosis among the Jupiterian women was 0.16, 95% CI, 0.04 to 0.68. Multivessel disease ($\geq 2$ arteries with significant stenosis) was twice as common among the Jupiterian women (62.5%) than in the Saturnian women (33%; OR for multivessel disease among the Jupiterian women, 3.2; 95% CI, 1.58–6.56; $P = .0016$).

**Table I.** Extent and revascularization of coronary artery disease in 40 Jupiterian and 179 Saturnian women catheterized because of suspected ischemic event [Inclusion criterion reported in the text as “with a diagnosis of angiographically confirmed CAD”]

<table>
<thead>
<tr>
<th>No. of vessels with stenosis ≥80%</th>
<th>Jupiterian (%)</th>
<th>Saturnian (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2 5 45</td>
<td>25</td>
</tr>
<tr>
<td>1</td>
<td>13 32 45</td>
<td>32</td>
</tr>
<tr>
<td>2</td>
<td>18 45 32</td>
<td>18</td>
</tr>
<tr>
<td>≥3</td>
<td>7 18 29</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td><strong>47 103 151</strong></td>
<td><strong>91</strong></td>
</tr>
<tr>
<td><strong>PTCA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>16 69 64</td>
<td>57</td>
</tr>
<tr>
<td>2</td>
<td>6 26 38</td>
<td>34</td>
</tr>
<tr>
<td>≥3</td>
<td>1 4 10</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td><strong>23 99 112</strong></td>
<td><strong>100</strong></td>
</tr>
<tr>
<td><strong>CABG</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1 7 0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>4 27 5</td>
<td>9</td>
</tr>
<tr>
<td>≥3</td>
<td>10 67 52</td>
<td>91</td>
</tr>
</tbody>
</table>


Jupiterian women with CAD had a significantly higher prevalence of multiple risk factors (45% vs 23%; \( P = .0094 \)) (Table II). Diabetes mellitus was more prevalent as well (72.5% [reported in Table II as 73%, rounding should be explained in a footnote to the table.] vs 40%; \( P < .0004 \); OR, 3.9; 95% CI, 1.8–8.3), but no significant difference was noted in hypertension and hypercholesterolemia. It was found, however, that the combination of diabetes and hypertension [It would have been useful to include a line for this in Table II.] affected more Jupiterian (65%) than Saturnian women (40%) in the study group (OR 2.76; 95% CI, 1.35–5.64; \( P = .0075 \)). A significant difference in lifestyle was found between the 2 [two] groups. Obesity [Reported in Table II as Overweight; the terms are not synonymous] was more common among Jupiterian women (80% vs 46%; OR, 4.7; 95% CI, 2.1–10.8 [\( P \) value missing in text]. Physical inactivity was prevalent in both groups; however, it was universal among the Jupiterian women (100% vs 89%; OR, 10.4; 95% CI, 0.61–175.9; \( P < .03 \). [Reported in the text as .0289] On the other hand, the prevalence of cigarette smoking was much lower among the Jupiterian women (18% vs 46%; OR, 0.25; 95% CI, 0.10–0.60; \( P = .001 \)).

**Table II. Risk factors for coronary disease and lifestyle characteristics among the study population [in 40 Jupiterian and 179 Saturnian women with CAD]**

<table>
<thead>
<tr>
<th>Risk factor</th>
<th>Jupiterian (%)</th>
<th>Saturnian (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes mellitus</td>
<td>29</td>
<td>73</td>
</tr>
<tr>
<td>Hypertension</td>
<td>28</td>
<td>70</td>
</tr>
<tr>
<td>Hyperlipidemia</td>
<td>28</td>
<td>70</td>
</tr>
<tr>
<td>No. of risk factors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>1</td>
<td>9</td>
<td>22</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
<td>25</td>
</tr>
<tr>
<td>3</td>
<td>18</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>40</td>
<td>99</td>
</tr>
<tr>
<td>Lifestyle characteristics</td>
<td>40</td>
<td>100</td>
</tr>
<tr>
<td>Smoking</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Overweight</td>
<td>32</td>
<td>80</td>
</tr>
<tr>
<td>Physically inactive</td>
<td>40</td>
<td>100</td>
</tr>
</tbody>
</table>

\( ^a P < .001; ^b P = .0094; ^c P = .0289 \). [Reported in the text as .03]

**Discussion**

Our data indicate that women in Cloudy Plains aged 45 to 65 years with angiographically proven CAD have [had] marked differences in presentation, severity of CAD, underlying risk factors, and lifestyle characteristics based on [related with] their ethnic background [Same paragraph]

The Jupiterian women, though significantly younger and much less likely to smoke, had much more extensive [more severe] CAD. They had tripled ORs for having multiple vessel disease and one-seventh the OR for normal coronary angiography [Compared to
Saturnian women?]. [their OR for multiple vessel disease was threefold as high as in Saturnian women, and their OR for normal findings on coronary angiography was one seventh that of Saturnian women.] [Both writing and thinking: the sentence is hard to understand, and the CI for Saturnian women are not stated in the Results, so the reader cannot judge how different the CIs for the two groups are. Their severe disease relative to that of the [The greater severity of their disease compared to] Saturnian women can also be inferred from their having surgical revascularization for only 2-vessel and even single-vessel disease, and being less likely to have [their lower likelihood of having] percutaneous revascularization for multiple vessel disease. [.] If this reflects the extent of CAD beyond angioplasty, [greater severity of CAD not amenable to angioplasty] with limited surgical revascularization possibilities, [and the limited potential for success of surgical revascularization.]

Diabetes mellitus was a key risk factor in both the [not needed] Jupiterian and Saturnian women (as in other populations of women with CAD)12–15; however, the rate [prevalence] / [frequency] of diabetes mellitus in Jupiterian women was double that of the [not needed] Saturnian women [in our sample]. The [not needed] Jupiterian women were more likely to be obese and physically inactive. On [Against] this background, it is not surprising that they were more likely to have had [have] multiple risk factors, with a 3-fold increase in [a three-fold higher prevalence / frequency of] the [not needed] concurrent incidence of [not needed] diabetes mellitus and hypertension. The combination of diabetes and hypertension was found in multiple studies to be particularly ominous from a cardiovascular standpoint.16,17 This combination is indeed one of the broader bases [most common causes] of the cardiometabolic syndrome, it [syndrome, which] includes metabolic abnormalities such as hyperglycemia and the effects of advanced glycosylation products, a worse lipid profile, and renal dysfunction. It also includes a hemodynamic abnormality [abnormalities] such as endothelial dysfunction, as well as coagulation abnormalities. Cellular and tissue abnormalities such as increased intracellular calcium, increased expression of the renin-angiotensin axis, [and above-normal concentrations of ] matrix metalloproteinases, adhesion molecules, and reactive oxygen species are frequently present, as well as a myriad of [myriad] other properties, all of which act in concert to enhance [exacerbate] coronary atherosclerosis and manifested [manifest] coronary disease.18,19

Women are known to have atypical presentation of coronary events (relative to men)2–5 [Among patients with CAD, atypical presentations are known to be more frequent in women than in men,] and this was also true for the [not needed] Saturnian women in Cloudy Plains11; however, the [not needed] Jupiterian women in Cloudy Plains were less likely to have a typical presentation compared with [atypical presentation was less likely in Jupiterian women in Cloudy Plains than in the [not needed] Saturnian women. The reason for this is not clear, but it was [differences in the frequency of atypical presentation were] also found among [between] other minority groups of women.3 It could [The differences may] be related to other differences in reporting disease [*meaning unclear*] between Jupiterian and Andromedan women, such as smoking and subjective health perception.20,21 There is also a possibility of language nuance problems, although probably only marginally [this factor probably had only a marginal influence] because [the availability of] Jupiterian-speaking physicians and available interpreters must have [probably / may have] minimized such a [this] problem.

Therefore, we [clinicians in Saturn] face, in practice, the combination of greater risk with [and] atypical presentation for diagnosing CAD [when a diagnosis of CAD is considered] in Jupiterian women. The clues therefore [not needed] rest [lie] in the
appreciation of risk mostly on the basis of a multiplicity of risk factors, prominent among which should be diabetes mellitus, a common outcome of obesity and physical inactivity.

Why should Jupiterian women in Cloudy Plains have more risk factors than Saturnian women? It is known from population surveys in Saturn that Jupiterian citizens, especially women, are more likely to be obese, and women even more so than men. Another relevant finding from population surveys is that the least physically active population segment is Jupiterian women. Although physical inactivity and obesity are closely related, there is evidence from an angiography-based study targeted at women that physical fitness was associated with fewer CAD risk factors, milder angiographic CAD, and fewer adverse cardiovascular events.

Whether obesity, physical inactivity, diabetes mellitus, CAD complex, or the cardiometabolic syndrome reflects genetic or environmental susceptibilities is not yet known. Nevertheless, other Andromedan populations, some in remote areas such as Pluto and Uranus, tend to have similar characteristics as do Saturnian women, MI survivors from Andromedan backgrounds, and Neptunian women with CAD. Immigrants from the Andromeda galaxy to the Solar System or the Asteroid Belt also have similar risk factor clusters that are quite distinct from what characterizes the population into which they have immigrated.

Among Jupiterian women in Saturn the adverse characteristics of multiple risk factors persist if not and may intensify over time. A very recent national survey (of almost 10,000 persons) found that among women older than 45 years, the prevalence of diabetes mellitus, obesity, and physical inactivity are about twice as high among the Jupiterian compared with the Saturnian women.

Our study had several limitations. Data may have been missing from patient files and diabetes mellitus as well as other risk factors were likely to have been underdiagnosed, perhaps more so in the Jupiterian women. We do not have data about socioeconomic and education levels and by definition our study deals with women in whom CAD had been diagnosed; therefore, we have no appreciation of those in whom it might have been overlooked. Other limitations: Small sample sizes, no previous info about incidence or prevalence of CAD and risk factors in the two populations.

Despite its limitations, our study clearly demonstrates the dire consequences of the presence of multiple risk factors, prominently diabetes mellitus, among middle-aged Jupiterian women with CAD. This study reports no data for mortality or other clinical outcomes, and so does not demonstrate this. It was not the purpose of the study according to the Abstract and Introduction. This recognition could help create programs for the prevention of not only CAD but also its precursors: physical inactivity, obesity, and diabetes mellitus.

References