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The Petite Asian Woman: Is Coronary Artery Bypass Graft Surgery Safe?

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Limited research exists on the outcomes of smaller patients who undergo coronary artery bypass graft surgery (CABG). Prior research has shown that smaller patients, defined as those having a body surface area (BSA) of 1.5 square meters or less, are more likely to have CABG mortality rates exceeding 5%, more complications and longer hospital stays (over 11 days) compared to larger patients (BSA of 1.6 square meters or greater). Specific information on outcomes of CABG in smaller Asian women is non-existent. The purpose of this study was to evaluate outcomes of CABG in smaller Asian women patients. To study this, a consecutive series of 4,358 patients undergoing CABG between January 1, 1992 and January 1, 1998 were evaluated. Of these patients, 246 (5%) were classified smaller patients and 144 of these smaller patients were females. There were 65 Asian women in this sample of 144 small women patients. These 65 small Asian women were compared to 152 Asian women who were larger (BSA 1.6 square meters or greater). The smaller Asian women were older (70.8 years versus 68.0; $p < 0.05$) and more likely to be presenting for urgent-surgery (56.9% versus 36.2%). The two groups were similar on presentation in regards to other risk factors. In-hospital mortality was similar between the groups (3.1% for smaller versus 2.6% for larger; $p = ns$), but slightly higher than nationally published data (2.1%). There was no significant difference between the groups in the occurrence of myocardial infarction or stroke. Hospital stay did not differ between the groups, although both smaller and larger patients had stays greater than 11 days. The only difference in outcome was that smaller Asian women were more likely to require blood transfusion following surgery (92.3% of the smaller Asian women versus 69.7% of the larger women; $p < 0.001$). Mortality 30 days post discharge was slightly higher in the smaller Asian women (10.8% versus 7.2%), but this difference was not statistically significant. In summary, smaller Asian women who present for CABG are slightly older at presentation for treatment than larger Asian women and are more likely to present for urgent surgery. However, the rate of in-hospital and 30-day mortality, myocardial infarction and stroke do not differ between the groups. The only outcome that differed was the need for blood transfusion, which was significantly greater in the smaller Asian women. Length of hospital stay did not differ between the groups, but both had longer than expected hospital stays, a finding that is consistent with prior studies of smaller patients. These results suggest that CABG can be performed as safely in smaller Asian women as in larger Asian women.