

The

# heart

## of the matter

*Failure to adhere to strict preoperative screening guidelines may result in serious complications and sequelae*

Ilya Petrou, M.D.

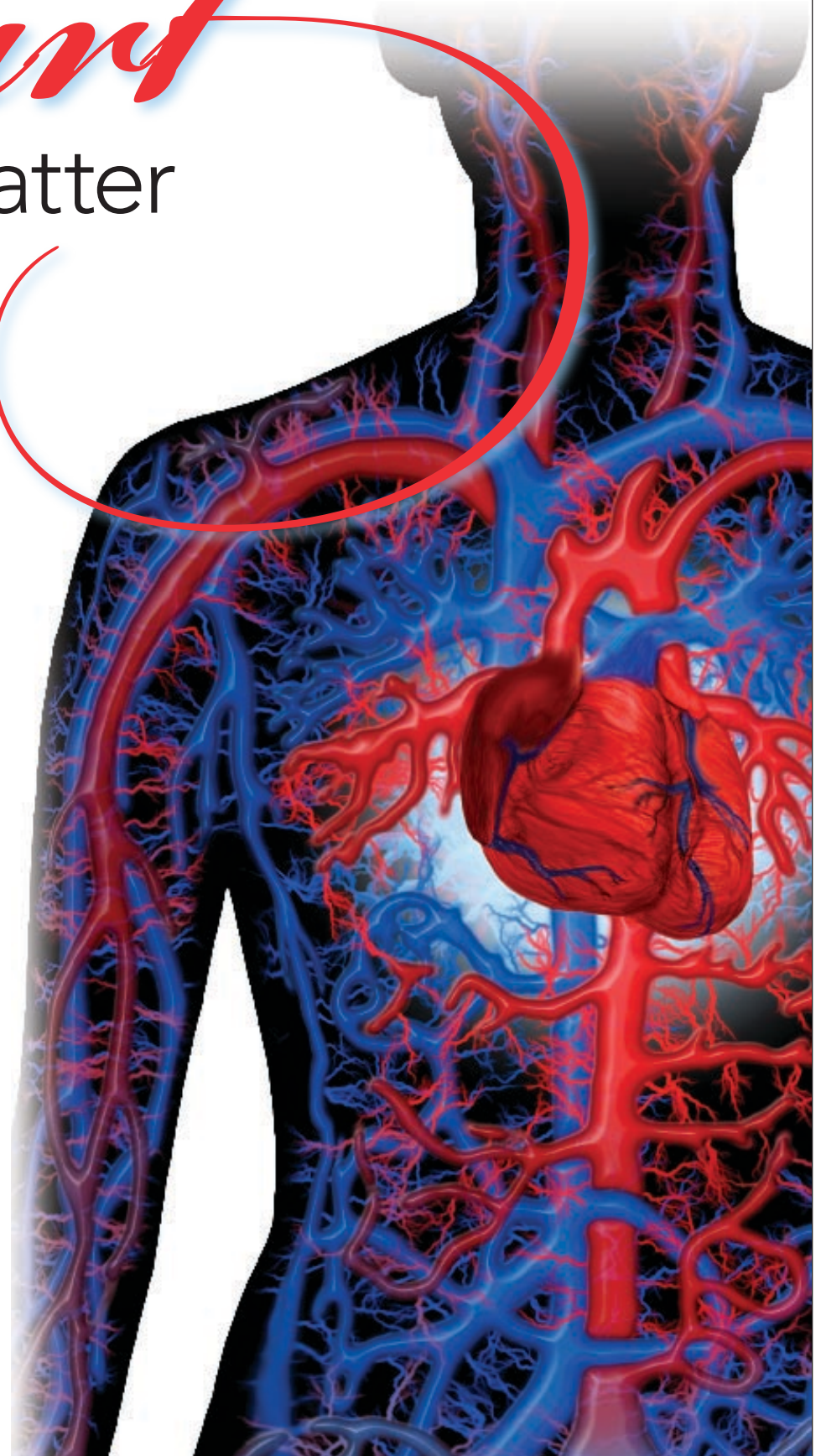
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**T**hough cosmetic surgery procedures can have a positive impact on a patient's mind and body, they are still elective procedures that can be associated with a mosaic of risk factors. Therefore, it behooves the cautious surgeon to perform thorough screening exams in patients — including cardiovascular (CV) status — prior to undertaking cosmetic procedures to circumvent serious and potentially life-threatening complications.

“A good mantra for any cosmetic surgery is that a patient is only as healthy as his or her coronary arteries. Therefore, the astute surgeon should always be observant of the CV status, and whenever in doubt, refer that patient for a complete workup and stress test,” says Joe Niamtu III, D.M.D., a



Experts agree that regardless of age, patients should be thoroughly screened prior to undergoing cosmetic surgery procedures in order to ensure the highest standard of care.





Dr. Niamtu

cosmetic facial surgeon based in Midlothian, Va.

### CV DISEASE AND AGE

Today's cosmetic patients are living longer than ever, thanks in part to the state-of-the-art medications available. However, patients of advanced age may have CV concerns that must be monitored and addressed when planning a surgical procedure.

Conversely, younger patients may also have associated CV risks, particularly if they are out of shape, follow a poor diet or have a family history of CV disease. Risk factors may be more expected in older patients, but younger patients could have hidden risk factors. Thus, a thorough workup should be performed.

"These patients may be asymptomatic and first reveal their CV disease symptoms on the operating table. That's why we rigorously screen all of our patients for any risk factors prior to surgery," says Alan Matarasso, M.D., clinical professor in the department of surgery, Albert Einstein College of Medicine, New York.

**RISK FACTORS REVEALED** Risk factors include obesity, smoking, family history of cardiac problems, sedentary lifestyle and an abnormal CV exam (including murmurs). Screening protocols include an in-depth family history, complete physical, EKGs (stress EKG and stress echocardiogram) and complete blood work, including CBCs, PT, PTT and all blood chemistries (cholesterol, triglycerides and blood sugar).

According to Dr. Matarasso, about 4 percent of the population can be genetically predisposed to blood clot formation, so getting a preoperative coagulation profile would be appropriate. In addition, in patients with a history of miscarriages, special clotting tests can be performed as a precautionary measure.

"It is important to check for diabetes preoperatively, because diabetics are commonly associated with a myriad of CV comorbidities," Dr. Matarasso says. "Here, we use hemoglobin A<sub>1c</sub> to screen and follow these patients and carefully monitor and adjust their insulin levels post-op. An elevated blood sugar could serve as a red flag when carefully screening patients prior to cosmetic procedures."

**CARDIAC SCREENING** "When evaluating the cardiac status, it is important to assess for valve function, ventricular function, coronary artery system status and arrhythmias," Dr. Niamtu says. An echocardiogram can assess the valve function and the ejection fraction of the ventricle, and it can give some indication as to whether the patient may have had a serious or recent MI, whereas a 12-lead EKG will assess ischemia, axis deviation and heart block."

Dr. Niamtu says CV status is probably less of an issue in patients undergoing smaller procedures, such as blepharoplasty with local anesthesia. However, more-invasive procedures such as facelifts, abdominoplasty and body-lipo — in which the patient is under deep IV sedation or general anesthesia for several hours — can take a heavier toll on the CV system. The more invasive the procedure, the higher the incidence of deep vein thrombosis and pulmonary emboli.

**COMPLICATIONS** Much can be done to prevent many of the potential complications of cosmetic surgery. Aside from doing a thorough and meticulous preoperative workup, the surgeon should consult with the anesthesiologist before surgery and have a clear perioperative plan for the patient. In higher-risk patients, the surgeon could decide on a lighter anesthetic or perform five procedures instead of two, achieving the same cosmetic outcome while decreasing the burden on the CV system.

"We commonly mix lidocaine with epinephrine for local anesthesia, because the vasoconstrictive effect of the epinephrine helps the lidocaine last longer in the target area. It can be challenging to perform many of these cosmetic procedures without the use of epinephrine in the mixture. So in a patient with CV disease, I might dilute that mixture more, or not inject the dose all at once," Dr. Matarasso says.

**AVOIDING DISASTER** An office death or serious complication is a devastating event for the patient, family and the surgeon. Therefore, it is important that physicians continually strive to uphold the highest standard of care, not only for the good of the patient, but also for medical-legal reasons. According to Dr. Niamtu, the wary surgeon should always be vigilant and prepared for the unexpected.

### EDUCATION

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"When something bad happens, chaos can evolve, and therefore, I believe that it is always better to have and not need than to need and not have. That's why I have life-saving medication like dantrolene for malignant hyperthermia, defibrillators and advanced monitoring systems in my practice. Surgeons should strive to get a reputation for having the most thorough presurgical workup," Dr. Niamtu says. ◀

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