Correspondence

Letter by Hobai Regarding Article, “Long-Term Anabolic-Androgenic Steroid Use Is Associated With Left Ventricular Dysfunction”

To the Editor:

A known manifestation of left ventricular dysfunction is the development of severe hypotension during induction of general anesthesia for surgery. A modest decrease in blood pressure is expected in most individuals because the commonly used induction agents (such as propofol, thiopental, etc) are also vasodilators. However, this effect is markedly accentuated in cardiomyopathic patients, possibly due to an increased sensitivity of the failing heart to the negative inotropic effects of anesthetics and/or the decrease in the venous return and sympathetic tone associated with anesthesia.

A number of recent reports in the anesthesia literature (eg, Reference 3 and references within) point out that athletes who use anabolic androgenic steroids (AAS) can develop profound hypotension on induction of general anesthesia. A similar case was encountered recently at Massachusetts General Hospital and required the use of vasopressor drugs (norepinephrine and dobutamine) and invasive hemodynamic monitors (pulmonary artery catheter and transesophageal echocardiography) during a prolonged surgical procedure. One possible explanation (among others) could be that the AAS-induced myocardial dysfunction described by Baggish et al is also associated with increased sensitivity to anesthetics, as are other forms of cardiomyopathy.

Clearly, such a severe hemodynamic instability may only occur in a minority of AAS users (with a more advanced cardiac disease, perhaps). However, until these reports, its occurrence in such young, athletic patients would have been surprising and could, in the absence of adequate vigilance and preparation, become life-threatening.

Of note, in 1 case, the AAS use was remote (12 years previous). Therefore, the effects of AAS use may be long-lasting.

Disclosures

None.

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References


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