

Anesthesiology
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Canadian Standards for Piped Gases

To the Editor:—Regarding the final paragraph of the article by Eichhorn *et al.*,¹ we would call attention to the recently approved revisions to Canadian Standards Association Standard Z305.1-1975, which include contaminant limits. There are 14 contaminants listed in the table, and limits are given for medical air, medical oxygen, and nitrous oxide. The revisions provide for testing the "source" only when the sample from the outlet exceeds the limits, and defines for testing purposes the point in the system where the "source" begins (looking from the outlet). The revisions also reference a new CSA Standard Z305.4, "Qualification Requirements for Agencies Testing Non-flammable Medical Gas Piping Systems." Readers who are interested in the details of the revisions should note that holders of Standard Z305.1 who have

returned their coupons will be automatically advised when the revisions have been published. Orders for either of the Standards should be directed to the CSA Standards Sales Division, 178 Rexdale Boulevard, Rexdale, Ontario, Canada, M9W 1R3.

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REFERENCE

1. Eichhorn JH, Bancroft ML, Laasberg LH, et al: Contamination of medical gas and water pipelines in a new hospital building. *ANESTHESIOLOGY* 46:286-289, 1977

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Ketamine and Angina

To the Editor:—The article by Balagot *et al.*¹ attributed the postoperative occurrence of Prinzmetal's variant angina to: 1) failure to take nitroglycerin prior to the operation; 2) omission of atropine as part of the preoperative medication; and 3) inadequate spinal anesthesia. Although these factors were possibly contributory to the exacerbation of the condition, they still do not adequately explain the precipitating stress. The authors do not report the patient's vital signs after ketamine was given, nor do they consider that ketamine, with its inotropic and chronotropic effects,² may have precipitated an acute increase in myocardial oxygen consumption, with resultant ischemia. One should, in the case of a patient with known angina pectoris, be circumspect about the use of ketamine because of its known ef-

fects on increasing the determinants of myocardial oxygen consumption.

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REFERENCES

1. Balagot RC, Selim H, Bandelin VR, et al: Prinzmetal's variant angina in the immediate postanesthetic state. *ANESTHESIOLOGY* 46:355-357, 1977
2. Lutz H, Peter K, Juhran W: A study of the cardiovascular response to ketamine. *Prakt Anaesth* 7:8-13, 1972

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To the Editor:—Dr. Balagot and his co-authors are to be complemented for their concise review of the pathophysiology of Prinzmetal's variant angina.¹ Their report calls attention to this disorder as one of

the causes of ST segment elevation in the recovery room. Unfortunately, the brief presentation and analysis lack some important details. Elucidation of the patient's history of angina would have been helpful.