experience of Rizk et al. may be explained in at least
two ways. First, even known porphyrinogenic drugs
such as the barbiturates do not always induce the clin-
cal manifestations in asymptomatic patients who have
acute intermittent porphyria. Second, the authors
assume the diagnosis from the history of the patient.
There was no biochemical or enzymatic confirmation
of the diagnosis prior to or after the operation.
It could be that the patient did not have acute intermit-
tent porphyria but rather another form of porphyria,
less sensitive to drugs.

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Hot Flashes in the Operating Room

To the Editor:—Vasomotor instability occurs in a
large portion of the population. As many as 85 per
cent of menopausal women may experience brief,
periodic feelings of warmth in the face, neck, and
upper thorax (“hot flushes”) or more severe, sudden
surges of heat involving the whole body with drench-
ing sweats, often associated with feelings of weakness,
anxiety, vertigo and nausea (“hot flashes”). 1 Episodes
commonly occur after meals, during exercise, or with
emotional stress, but also develop during sleep. They
may be as frequent as 20 times a day and can last for
decades. 2 We observed a 52-year-old woman in whom
a paroxysmal episode of facial flushing, profound
sweating, tachycardia and hypotension developed
during anesthesia and suddenly and spontaneously
resolved after 8 min. There was no apparent preci-
pitating factor. Postoperatively, the patient vividly
described “hot flashes.” Attempts to document
vital signs during such episodes while the patient was
awake were unsuccessful.

Unfortunately, there are few studies in the literature
concerning the pathophysiology of “hot flashes.”
Temperature monitoring has documented that the
digits and checks (where the flush occurs) warm as
vasodilation occurs, while the remainder of the body
that responds with marked sweating cools with evap-
oration. Internal body temperature decreases. 3 Heart
rate increases, occasionally with arrhythmias. 4, 5 Blood
pressure increases are thought to occur, but probably
the blood pressure responses are characterized by
variability and instability. 6 No diagnostic, physiologic
change that characterizes a “hot flash” results; the only
way to know one has occurred is the subjective descrip-
tion given by an awake patient. Thus, despite the
resemblance of the intraoperative changes seen to the
patient’s menopausal symptoms, the occurrence of a
“hot flash” during anesthesia must be purely specula-
tive. Perhaps differential skin temperature monitor-
ing would be useful.

The etiology of these episodes is obscure. Estrogen
levels decrease and pituitary gonadotropin levels in-
crease during the menopause. Yet other clinical con-
ditions with similar hormonal changes are not associ-
ated with vasomotor instability. 5 Furthermore, not
all women have vasomotor symptoms after oophorec-
tomy, and there is no difference between hormone
levels in groups with and those without attacks. 6
Although estrogens abolish symptoms of the meno-
pause, so do other drugs and placebos. 7 Because of the
similarity to attacks seen with the carcinoid syndrome,
serotonin levels and 5-hydroxyindoleacetic acid excre-
tion have been measured, but have not revealed any
abnormality. 8 Evidence linking dopamine, norepi-
nephrine and prostaglandins to the regulation of
pituitary gonadotropins is accumulating, and the
formation of catecholamines may modulate neuro-
nal activity through specific binding sites in the brain. 9

With the large number of menopausal women
undergoing surgical procedures, it is unclear why
intraoperative “hot flashes” have not been reported pre-
viously. Perhaps anesthetics influence the occurrence
or manifestations, although it is more likely that cases
have been attributed to “light” anesthesia, unknown
“reflexes,” or other causes. A preoperative assessment

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of frequency and severity of "hot flashes" in susceptible
patients (those more than 40 years old or having pre-
viously undergone oophorectomy or estrogen with-
drawal) may alert the anesthesiologist to anticipate
vasomotor instability.

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