be more reduced than diparrol (50 mg. with 150–200 mg.) to avoid serious respiratory depression. The patient is now rather somnolent and the jaw well relaxed, but he can still be aroused. Curare is added (intocostrin® 9 mg. or flaxedil® 60 mg. with 25 to 50 mg. of pentothal®) for intubation under direct vision.

(c) Maintenance: N₂O plus O₂ at the ratio of 1:2 with pentothal or cyclopropane and curare added as needed. The cooling agent is ice, and in some cases hexa- or pentamethonium was also used, but Huguenard questions their usefulness in this technique except where severe bleeding might otherwise ensue. The temperature is kept around 32–34 C. The temperature measured by rectal thermocouple, has to be as carefully observed and recorded as pulse and blood pressure—in fact, the usual signs and symptoms of hypoxia are absent due to the autonomous block, while the temperature curve shows such hypoxia early. Prothrombin time falls sometimes to 35 per cent of normal during general refrigeration. The eosinophile count, too, drops, but much less than during "classical" anesthesia.

Huguenard feels that this technique needs further investigation and study and that it is not yet ready for general use.

Unfortunately, none of the papers give credit to the pioneer work of Peye and F. M. Allen about the effects of cold in its local application in refrigeration anesthesia as well as in general cooling.

E. G. B.


"The purpose of this paper is to report and evaluate our experience with the intravenous use of procaine hydrochloride... as a therapeutic measure to combat pruritus and facilitate healing in a group of common pruritic dermatoses... Our clinical experiences indicated that a dosage of 0.1 to 0.2% of procaine hydrochloride in 500 cc. isotonic saline solution was best tolerated by our patients when given over a period of 60 to 90 minutes. All patients were routinely given barbiturate medication one hour before injection. Ascorbic acid in the amount of 200 mg. was added to each infusion, as we felt it increased the resistance against toxic side effects and benefited patients with poor nutrition. When edema was present, 5% dextrose was added and removed when the edema subsided. In patients with heavy nervous irritability and fear of the infusion, thiopental (pentothal) sodium U.S.P., in dosage of 200 to 300 mg., was added to the first two or three injections. This afforded a very satisfactory approach to overcome these symptoms and allowed further treatment to be continued without incident. It produced dramatic relief of pruritus and allowed the patient to obtain the much-desired sleep. The most favorable and dramatic responses we obtained with this modified therapy were in the group of generalized neurodermatitis. Each patient in our series received one daily injection. On three occasions, two daily injections were given for three successive days."

"The minimum number of injections given was 2, and the maximum was 30. We soon learned that if relief was not forthcoming within six days, further therapy would be of questionable value. Most patients who reacted favorably to this therapy manifested relief from pruritus after the fourth daily intravenous injection. We did not encounter any evidence of addiction to the drug, and no acquired sensitivity was observed... In our
series, totaling 183 patients, a pre-
liminary skin test, as suggested by Mc-
Lachlin, was performed on each pa-

tient. One hundred and fifty-one pa-

tients had previously received local
procaine injections for medical or
dental reasons. Twelve patients gave
additional history of frequent contact
exposures to procaine. Patch tests
with 1% procaine solution were done
on these patients, as well as intradermal
testing, and reactions to patch tests
were negative. Only three patients in
our series manifested reactions in in-
tradermal testing. . . . Two patients gave
a marked local reaction within a period
of 20 minutes and manifested symp-
toms of dizziness, light-headedness,
tremor and tightness in the chest.
These reactions we felt, eliminated
them from treatment. The third pa-

tient reacted positively to the intra-
dermal injection and manifested no
systemic symptoms. Intravenous pro-
caine therapy was given to this patient
on two consecutive days. Within 20
minutes after each infusion, the patient
complained of marked dizziness, ap-
prehension, tightness in the chest, and
momentary unconsciousness. The re-
actions were controlled with amobarbital
(amytal) sodium N.F. intravenously,
and the procaine therapy was discon-
tinued. A total of 1780 injections were
given. . . .

"Forty-five patients of the total
group received subsequent intradermal
skin tests with procaine at intervals of
three months to one year. No evidence
of acquired sensitivity was recorded
in these patients. . . . From the data
submitted we feel that intravenous use
of procaine hydrochloride offers an-
other approach to combat pruritus.
When properly controlled, it is safe.
We recommend it when other therapies
fail."

A. A. Kutscher, A. H.: The Analgesic Ac-
tion of Subdamine. The Effect of
Subdamine on Pain Threshold and
in the Treatment of Idiopathic
Glossodynia. New York State J.

"Nonas and McGavack, Weissberg
and Nonas have reported that 1-
diethyl-carbamyl-piperazine (Subda-
mine) acted as an analgesic and seda-
tive during its administration to psy-
choneurotic patients with anxiety and
tension symptoms frequently associ-
ated with the climacterium. This in-
vestigation reports upon the lack of
effect of Subdamine upon the pain
threshold of human skin. Its sedative
properties, and the failure of this drug
to alleviate idiopathic glossodynia
permanently. Six subjects were thor-
oughly indoctrinated in the Hardy-
Wolff-Goodell pain threshold technic.
. . . The pain threshold of each sub-
ject was determined at half-hour inter-
vals over a control period of five hours
following the ingestion of a placebo
capsule. On a subsequent day, under
identical circumstances, the pain
threshold-raising effect of +0.5 Gm.
Subdamine was tested on these sub-
jects. . . . Subdamine (0.55 Gm. per
capsule; one capsule four times a day) was administered for two weeks to 14
carefully selected patients (two males
and 12 females, ages twenty-six to
fifty-seven) who presented with pro-
longed suffering from idiopathic
glossodynia. . . . The administration of
0.5 Gm. of Subdamine does not sig-
nificantly alter the pain threshold in
humans as determined by the Hardy-
Wolff-Goodell technic. Subdamine, de-
spite its desirable sedative properties,
is not sufficiently effective in the treat-
ment of idiopathic glossodynia."

A. A.