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### Hypertension from Smokeless Tobacco

*To the Editor:*—Recently we anesthetized an obese, 49-yr-old woman for a total abdominal hysterectomy. She had a long history of well-controlled essential hypertension; her medication consisting of hydralazine 100 mg bid and atenolol 100 mg qd. Her preoperative medication consisted of diazepam 10 mg po. Prior to surgery her blood pressure had been consistently reported as around 140/80 mmHg. On arrival in the operating room she was hypertensive with a blood pressure of 210/115 mmHg, in spite of an apparent lack of anxiety or apprehension.

At this stage it was discovered that the patient had a large mass of snuff (smokeless tobacco) between the cheek and gum. Removal of the snuff was followed by a return of her blood pressure to 150/85 mmHg over the next 15 min.

Nicotine is a well-known ganglionic stimulant and as such can produce hypertension. In comparison with cigarettes, which contain up to 1.5 mg nicotine, snuff may contain nicotine in amounts up to 30 mg/g. It is, therefore, not surprising that the use of these fine-cut preparations may result in the systemic absorption of relatively large amounts of nicotine. Snuff-dipping provoking par-

oxysmal hypertension that induced myocardial ischemia has been described in a 69-yr-old woman with pheochromocytoma.<sup>1</sup>

The use of snuff in the United States is on the rise, especially among young people. In 1984 it was estimated that more than 21,000 tons were consumed by some 7 million snuff dippers.<sup>2</sup>

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### Support of the Arms during ESWL

*To the Editor:*—Extracorporeal shock-wave lithotripsy (ESWL) is a relatively new technology that allows for the noninvasive fragmentation of kidney stones. To undergo treatment, patients must be immersed up to the neck in a tank of water. This presents the anesthesiologist with a number of problems, including how best to position the patient's arms. Floating the arms in the water necessitates "waterproofing" the ECG electrodes and the iv site. Strapping the arms to arm rests alongside the patient's head is often uncomfortable for the patient and it limits the anesthesiologist's access to the patient's airway. Having the patient grasp the fluoroscopy units (which remain out of the water) requires patient cooperation and may produce unacceptable levels of muscle artifact on the ECG.

Because of these problems, we have devised a simple solution to arm positioning for ESWL. A sling is constructed out of a 2 ft × 3 ft strip of foam "egg-crate" mattress material and is attached to the patient gantry with Velcro™ straps (fig. 1). The patients' arms are

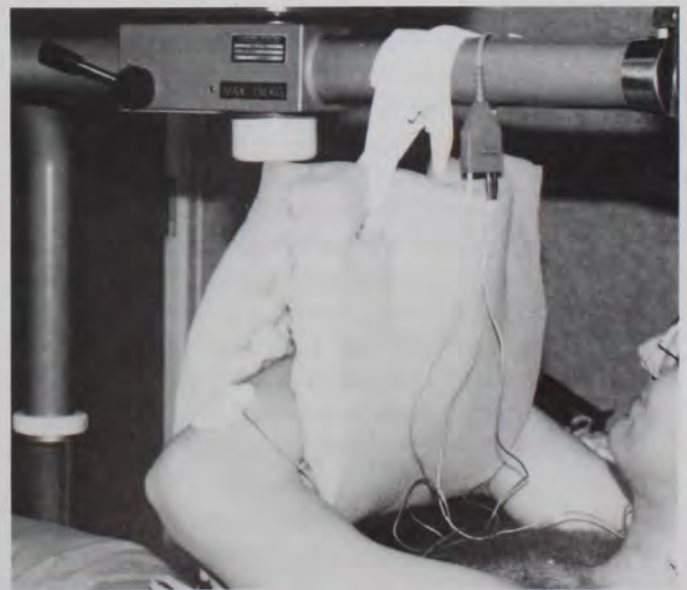


FIG. 1. Patient positioning for ESWL treatment using foam sling.