Ionic- vs- Nonionic Contrast Agents

Reply

We have read the comments in the letter from Drs. Aguirre and Kern. We agree with their concerns regarding nomenclature and with the recommendation that the designation "low osmolar" rather than the more commonly used "nonionic" be utilized. The purpose of grouping these two agents together was to compare the hemodynamic consequences as a group with the more traditionally used agent Renografin 76. Our results agree with the need to further divide these categories, as they suggested, on the basis of appropriate physiologic action.

The manner in which the specific number of cc's was selected was initially determined by satisfactory opacification on fluoroscopy. It turned out, after the initial studies, that we could consistently get satisfactory opacification with this amount of contrast. Results, furthermore, indicate suggestive hemodynamic response with this dosage.

Again, we thank you for the opportunity to respond to Drs. Aguirre and Kern and appreciate their meaningful response to our manuscript.

M. Wayne Cooper, MD
Michigan State University
East Lansing, Michigan

Outpatient Pericardiocentesis

To the Editor

Conservative cardiologists cringed when proposals were first made that diagnostic left heart catheterization might be performed safely as an outpatient procedure. As economic pressures mounted and procedural safety improved, a decided shift occurred so that low-risk patients now may routinely enjoy this convenience [1], and the more innovative even propose that coronary angioplasty may become an outpatient procedure in straightforward cases [2]. Recently we had a patient who has taken this trend one step further. A 33-year-old man with a dilated cardiomyopathy and pericardial effusion secondary to AIDS required three pericardiocentesis procedures during two hospitalizations. A total of 4,030 cc of pericardial fluid was removed for diagnostic purposes and to relieve cardiac tamponade. Four days after his most recent hospital discharge and 25 days after his most recent pericardial tap, the patient brandished a butcher knife while at the house of a friend and performed his own outpatient pericardiocentesis by thrusting the blade into his chest near the left nipple, apparently penetrating and partially draining the pericardial space. This event prompted his immediate hospital admission, endotracheal intubation, and placement of a chest tube and a pericardial drainage tube. It would appear that pericardiocentesis is a procedure better suited to a more conservative approach.

REFERENCES

1. Lee JC, Bengtson JR, Lipscomb J, Bashore TM, Mark DB, Califf RM, Pryor DB, Hlatky MA: Feasibility and cost-saving potential of outpatient cardiac catheterization. J Am Coll Cardiol 15:378–384, 1990.
2. Cragg DR, Friedman HZ, Almany SL, Gangadharan V, Ramos RG, Levine AB, LeBeau TA, O'Neill WW: Early hospital discharge after percutaneous transluminal coronary angioplasty. Am J Cardiol 64: 1270–1274, 1989.

Mark W. Burket, MD
Medical College of Ohio
Toledo, Ohio

Triple Mount for Ceiling Suspended Power Injectors: A Real Space Saver

To the Editor

The number and complexity of angiographic and interventional procedures in the cardiac catheterization laboratory have changed dramatically over the past decade. Evolving technologies and therapeutic techniques require more equipment and more staff, resulting in limited floor space within the catheterization suite. Extra electrical cabinets for digital subtraction angiography, radiation shields, power injectors, catheter storage cabinets and ancillary equipment carts holding oxygen consumption monitors, cardiac output computers, and continuous infusion pumps shrink available floor space in the catheterization laboratory. Many older laboratories were designed in an era when the floor space required to house catheterization laboratory equipment was generally abundant. The disadvantages of limited working space are obvious when considering access to the patient for emergency activity or ancillary studies, such as performing an echocardiogram in the catheterization laboratory. A congested laboratory is not conducive to an efficient approach to angiography. The decreasing catheterization laboratory space also presents a problem for architects and laboratory managers when the time comes to update an existing smaller laboratory.

One common approach to saving space is utilization of a ceil-

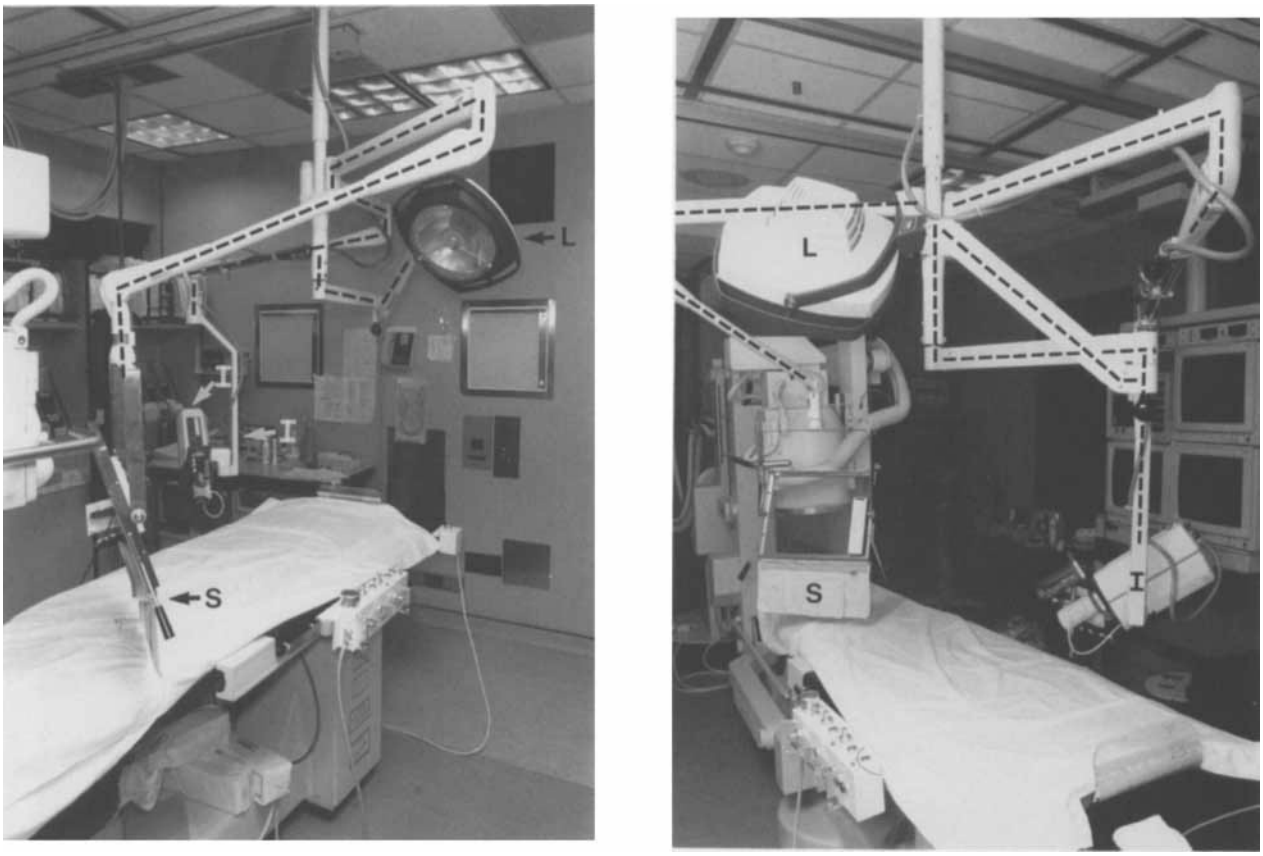

Fig. 1. Two views of the triple mount. L = light; S = lead shield; I = power injector head (Medrad Inc., Pittsburgh, PA).

ing-suspended power injector. Several systems are now available which allow the injector head to be ceiling-mounted in the vicinity of the catheterization table, with the control console wall-mounted at a convenient spot within the laboratory. While this is a logical approach, the modern catheterization laboratory ceiling is already cluttered with x-ray unit mounting struts and often separate suspension poles for the operating light and x-ray shield. Another ceiling-mounted device may not be possible.

To address the cluttered ceiling, several mounting systems offer a two-arm pole, but this modification may still be insufficient to accommodate all of the above. When two poles are used, avoiding collision of the articulating arms of the several ceiling-suspended pieces is a constant problem.

At St. Louis University, we modified a two-arm mounting pole to accept a third piece of equipment. This modification allowed the power injector head, operating light and the lead shield to be ceiling-mounted from a single pole. The two mount single pole was modified in such a way that the operating light was mounted to the bottom portion of the conventional two-arm mounting pole (Fig. 1). With this configuration, the suspension arms for each unit articulate with minimal chance for collision. Because only one pole had to be mounted rather than two, there was enough room in the ceiling for the angiographic video monitors to extend laterally across the ceiling, permitting viewing from either side of the catheterization table, an especially convenient feature when working from the patient's left arm. Because additional weight was added to this modified mounting pole, increased structural support of the ceiling unistrut to which the pole was mounted was considered, but was not necessary in our situation. Another modification included running a 110-volt power line from the ceiling down the pole to allow placement of the angioplasty inflation monitor (Inteliflator, Merit Medical Inc., Salt Lake City, UT) on the pole making it easily visible to the physicians and staff circulating in the room.

The tripod ceiling mount offers several advantages over the use of a floor stand for the power injector. With this system, the injector head is conveniently and rapidly located where it is needed at the catheterization table. The television monitors do not have to be moved away from the catheterization table when connecting the power injector. The technical staff finds placing the injector particularly easy. We recommend this modification to laboratories in which space is an issue. In addition, we have found this method permits routine procedures to be completed with greater ease and comfort to both patients and staff.

Robert Roth, RN
St. Louis University Medical Center
Cardiac Catheterization Laboratory
St. Louis, Missouri