constipation and muscle pains. Some of the subjects slept for varying periods of time after the test: 2 for 1–2 hours; 3 for 3–6 hours; 5 for 9–12 hours, and 1 for 24 hours. Innovar and droperidol give rise to marked extrapyramidal symptoms, which occurred from 10 to 24 hours after injection of the test drug (Dobkin, A. B., Israel, J. S., and Byles, P. H.: Canad. Anaes. Soc. J. 11: 41, 1964). Benzpropine was used to relieve the symptoms in each case. Respiratory depression (tidal volume depression) was noted with the Innovar mixture only and was probably due to the fentanyl component. Conclusion: When the use of the tested compounds is contemplated, the possibility of untoward reactions, as observed in this study, should be considered.

Peripheral Nerve Block with Dilute Phenol Solutions in the Treatment of Spasticity. JORDAN KATZ, M.D., DANIEL J. FELDMAN, M.D., LESLIE KNOTT, M.D., and ALLEN J. RUSSELL, M.D., Stanford University School of Medicine, Palo Alto, California. Overactivity of the gamma system appears to be one of the predominant features present in pathophysiology of spasticity. The gamma efferent fibers to the muscle spindle are 1.5 to 4.0 μm in diameter compared to the 12–14 μm diameters of the afferent fibers of this reflex arc. The alpha fibers (the motor nerves to the muscle fibers) also have relatively large diameters. Differential block of the gamma efferents with dilute phenol solutions is therefore suggested (Khalili, and others: unpublished data). Methods and Results: Twenty-six nerve blocks were done in patients who were spastic from various causes (cerebrovascular accident, multiple sclerosis, cerebral palsy and trauma). The nerve was isolated percutaneously with an electrical stimulator and a 3 per cent phenol in saline solution was injected. Doses of 2 to 7 ml. were used. Relief of spasticity of 50 per cent or more occurred in 19 of the neuromuscular units blocked. Seven units had complete relief of spasticity. Of the seven which failed to improve objectively there was subjective loosening of involved muscles in four instances. The duration of block has varied from 2 weeks to 7 months at this time. Volitional motor power has returned to some extent in seven units post block. There have been no serious permanent sequelae of the block. Conclusions: Dilute phenol solution may add significantly to the treatment and future rehabilitation of the spastic patient. Larger series of cases and longer follow-ups are necessary before a true evaluation of this technique can be made.

Ventilatory Response of Infants to Added Dead Space. HAK SUH LIM, M.D., THOMAS D. GRAFF, M.D., DONALD W. BENSON, M.D., PH.D., and OSCAR KANTT, M.D., The Johns Hopkins University School of Medicine, Baltimore. This study was intended to investigate ventilatory response of infants to added external mechanical dead space. Method: Five healthy infants aged between 4 months and 3 years who had undergone minor surgery were studied. Halothane-oxygen anesthesia through Ayre’s “Y” and endotracheal tube was given to all infants. Alveolar concentration of halothane was monitored with Liston-Becker halothane analyzer and kept constant at 1 per cent. With an integrated pneumotachometer, tidal volume and respiratory flow rate were recorded. $P_{\text{O}_2}$, pH and standard bicarbonate were determined with an Astrup radiometer. Transpulmonary pressure was recorded with an esophageal balloon and work on the lungs was calculated with McIlroy’s formula. After 10 minutes of control, mechanical dead spaces with volumes of 1, 2 and 3 times the infant’s anatomical dead space were added to infants, for 15 minutes for each dead space, allowing 10 minutes of recovery period between each dead space being added. Results: Although a mechanical dead space with a volume up to three times the anatomical dead space of the infant was added for 15 minutes, these infants were able to compensate by increasing their tidal volume and maintaining normal alveolar ventilation. $P_{\text{O}_2}$, pH and standard bicarbonate did not change significantly. Work on lungs increased proportionally with the increase of added dead space.

The Effect of a Standard Cyanotic Circulatory Lesion on the Induction Dose of Methohexital in the Dog. EDWARD LOWENSTEIN, CAPTAIN, MC, HARREL L. WALKER, B.S., and LAWRENCE I. ZAROFF, CAPTAIN, MC, United States Army Surgical Research Unit,