

Anesthesiology
63:224, 1985

In reply.—We thank Drs. Gelman and Navar for their interesting comments. We agree that the extraction fraction of hippuran is related to blood concentration and cortical blood flow. However, in our study labeled hippuran was administered, allowing us to measure plasma concentration of less than 0.01 mg/dl¹ which is 500 times less than the saturation level of hippuran tubular extraction.² Concerning the influence of blood flow, although it has been demonstrated that an increase in renal blood flow can depress extraction of hippuran,³ with normal flow, hippuran is almost completely cleared.⁴ Therefore, we feel that in our study the significant increase in extraction fraction of hippuran strongly suggests a redistribution of flow toward the renal cortex, since in our patients hippuran plasma concentration was very low and renal blood flow never increased.

As stated in our discussion, we also feel that the effects of infrarenal aortic cross-clamping on renal hemodynamics in elderly patients with advanced arteriosclerosis cannot be compared with the effects in healthy animals, where published results are conflicting.^{5,6}

Z. GAMULIN, M.D.
Department of Anesthesiology

A. FORSTER, M.D.
Department of Anesthesiology

H. FAVRE, M.D.
Department of Medicine

*University Hospital of Geneva
1211 Geneva 4, Switzerland*

REFERENCES

1. Gamulin Z, Forster A, Morel D, Simonet F, Aymon E, Favre H: Effects of infrarenal aortic cross clamping on renal hemodynamics in humans. *ANESTHESIOLOGY* 61:394-399, 1984
2. Reubi FC: Clearance Tests in Clinical Medicine. Springfield, Charles C Thomas, 1963, pp 41-42
3. Harvey RB: Effects of acetylcholine infused into renal artery of dogs. *Am J Physiol* 211:487-492, 1966
4. Barger AC, Herd JA: Renal vascular anatomy and distribution of blood flow, *Handbook of Physiology: Section 8 (Renal Physiology)*. Edited by Orloff J, Berliner RW. Washington D. C., American Physiology Society, 1973, pp 249-313
5. Cronenwett JL, Lindenauer SM: Distribution of intrarenal blood flow following aortic cross clamping and declamping. *J Surg Res* 22:469-482, 1977
6. Gelman S, Patel K, Bishop S, Fowler KL, Smith LR: Renal and splanchnic circulation during infrarenal aortic cross-clamping. *Arch Surg* 119:1394-1399, 1984

(Accepted for publication February 21, 1985.)