cerebral metabolic rate of oxygen (CMR_{O_2}) using argon clearance rates measured by mass spectography and oxygen saturation from cerebral arterial and venous blood samples. Although both CBF and CMR_{O_2} showed significant differences among the three groups, CMR_{O_2} separated them more clearly as to quality of recovery. In groups 2 and 3, the patients' CMR_{O_2}'s were 51 and 14 per cent of values obtained in group 1. These differences were significant, $P < 0.0001$. CMR_{O_2} is presented as a reliable prognostic indicator in acute head trauma. *(Tabaddor, K., Bhushan, C., Pevsner, P.H., and others: Prognostic Value of Cerebral Blood Flow (CBF) and Cerebral Metabolic Rate of Oxygen (CMR_{O_2}) in Acute Head Trauma. J Trauma 12: 1053–1055, 1973.)* EDITOR'S COMMENT: If substantially large areas of the brain are not perfused, then oxygen consumption must decrease. Although one cannot quarrel with the virtues of this type of measurement, it would be worthwhile to demonstrate that the added instrumentation is a better prognosticator than careful repeated neurologic evaluation.

Renal Function

RENAL CONCENTRATING ABILITY This study was performed to assess urine-concentrating ability as a simple clinical means of evaluating renal function in preoperative patients. Stimuli for urine concentration were either a 12–14-hour period of water deprivation or exogenous vasopressin administration. Urinary osmolality and specific gravity were measured. Concentrating ability was compared with 12-hour creatinine clearance. Results indicate that: 1) specific gravity determinations are not reliable indicators of osmolality; 2) concentrating tests are simpler to perform and less subject to error than are creatinine clearances, and appear to identify the majority of patients with significant impairment of renal function; 3) the combination of a concentration test and a serum creatinine level would identify a wide range of renal-function abnormalities. The authors recommend further evaluation of the concentration test as a simple method for evaluating renal function in preoperative patients. *(Crandwll, W.B., and McDonald, A.: Assessment of Renal Function in Surgical Patients by Urine Osmolality Concentration Tests. Am J Surg 125: 508, 1973.)* ABSTRACTER'S COMMENTS: Concentrating tests are used as a measure of tubular function, creatinine clearances are used to estimate glomerular function. While it is true that concentrating tests are technically easier to perform than creatinine clearances, their interpretation is subject to great error. Exogenous vasopressin is not as potent a stimulus as is dehydration, and 24 hours of water deprivation are required to achieve 90 per cent of "maximum" concentration. Because renal function has a great reserve, it is unlikely that a single test will assess overall renal status, and we must continue to rely on a carefully performed history and physical examination in conjunction with laboratory studies, which might include urinalysis and determinations of serum creatinine and BUN. The ratio of urinary to serum osmolality following a predetermined period of dehydration is a simple method for evaluation of ability to concentrate and probably is not used often enough as a preoperative screening test.

INTRARENAL BLOOD FLOW IN CONGESTIVE HEART FAILURE The mechanism responsible for sodium retention and edema formation in congestive heart failure has not been completely elucidated. Alterations of intrarenal hemodynamics have been implicated as a factor in animals. Studies were performed to determine whether similar alterations might contribute to edema formation in human heart failure. Intrarenal distribution of blood flow was estimated using ^{133}xenon washout. Ten patients with heart failure, seven with edema and three with no edema, were studied. Controls were kidney donors and hypertensive patients on a low-salt diet (the edematous patients were also on low-salt diets). Edematous patients had significantly decreased cortical blood flow compared with normals, hypertensive patients, and heart-failure patients without edema. Moreover, diuresis induced by furosemide was accompanied by increased cortical flow. The authors conclude that preferential cortical vasoconstriction may play a role in edema formation in human heart failure. Of interest is the fact that the authors found an inverse relationship between renal cortical blood flow and central venous pressure, the lowest flow being present at highest CVP despite no