Plasma calcium levels in critical patients with and without sepsis Niveles de calcio plasmático en pacientes críticos con y sin sepsis.

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We determined total plasma calcium levels in 44 critically ill patients without evidence of renal or hepatic failure, 25 of them with active systemic infection. Plasma Ca was 7.49 +/- 0.1 mg/dl in the septic group compared to 8.46 +/- 0.2 in non septic patients (p < 0.01). Corresponding levels of serum albumin were 2.26 +/- 0.1 and 3.05 +/- 0.2 milligrams, respectively (p < 0.01). Corresponding corrected plasma Ca levels were 9.19 +/- 0.1 and 9.39 +/- 0.1 mg/dl (NS). No correlation of lactate and plasma Ca levels was found. Mortality was 56% for septic and 16% for non septic patients. Patients with hypocalcemia had 53% mortality rate compared to only 16% in normocalcemic patients. PTH levels were normal in all but one patients, thus ruling out a rapid installation secondary hyperparathyroidism. Hypoperfusion does not appear related to ionic Ca levels given the lack of correlation of Ca and lactate levels. Mortality is related to sepsis and hypoalbuminemia but not to corrected Ca plasma