

## البحث السادس

### عنوان البحث باللغة الإنجليزية:

Effects of adding low-dose ketamine to etomidate on serum cortisol levels in critically ill cardiac patients: a randomized clinical trial.

### ملخص البحث السادس باللغة الإنجليزية:

**Background** Etomidate was associated with an inhibition of adrenal steroid synthesis. This study aimed to evaluate the effects of adding low-dose ketamine to etomidate to minimize the decrease in serum cortisol level in critically ill cardiac patients.

**Methods** Sixty adult cardiac patients,  $\geq 18$  years, who underwent upper endoscopy and Colonoscopy to manage acute anemia in the cardiac intensive care units were enrolled. Patients were randomly divided into two groups: (group (E):  $n= 30$ ) received etomidate 0.2 mg/kg IV followed by etomidate 0.05 mg/kg IV, and (group (KE):  $n= 30$ ) received ketamine 0.5 mg/kg IV, then etomidate 0.1 mg/kg IV, followed by etomidate 0.05 mg/kg IV. The primary outcome was Serum cortisol level at 6 h after the procedure.

**Results** The mean postoperative cortisol level was significantly lower in group E ( $295.60\pm 49.218$  nmol/L) versus group KE ( $461.00\pm 67.946$  nmol/L), with 95% CI= $351.94$  to  $404.66$ ;  $p= 0.000$ . In addition, the estimated serum cortisol reduction level was also significant between groups; In group E, the estimated cortisol level decreased nearly 53% from  $632.40\pm 35.066$  nmol/L to  $295.60\pm 49.218$  nmol/L 6 hours postoperative. While in group KE, the estimated cortisol level decreased only 27% from  $639.13\pm 43.035$  nmol/L to  $461.00\pm 67.946$  nmol/L.

**Conclusions** Single-dose ketamine (0.5 mg/kg) was helpful to decrease the total dose of etomidate and hence decreased the percentage of serum cortisol level in such critically ill patients with preservation of patient satisfaction.