Background: Adequacy of cardiac output (CO) is judged by its adequacy to maintain organ perfusion. Even though CO is affected by many factors, normalizing those factors with or without inotrope will result in optimum CO. While the use of inotrope alone will only increase contractility and blood pressure.

Objective: To evaluate the efficacy of transesophageal Doppler on inotropic use.

Materials and Methods: Between March 2002 and September 2004, 240 CABG patients were submitted to the study divided into 2 equal groups. Group (A) where transesophageal Doppler was used to measure CO, SVR, SV, FTC, and manipulated to reach an acceptable CO. And group (B) where only clinical data BP, Heart Rate, CVP, urine output were used. Nitroglycerine infusion was used in both groups. The use of inotrope, type, duration, and dose to go out of bypass were observed. Results: 91 patients of group (A) and 87 from (B) had mean blood pressure less than 60. 69 patients from (A) restored their mean pressure by volume infusion and nitroglycerine adjustment only. 12 patients needed vasopressors, and only 10 patients needed epinephrine. While 82 patients from group (B) used epinephrine (p<0.001) and only 5 patients used vasopressors (p<0.05).

Conclusion: The use of transesophageal Doppler to measure cardiac output, SVR, SV, and FTC significantly decreased the use of inotropes and increased the use of vasopressors. Adjusting the SVR and fluid volume restored blood pressure and CO in 89% of hypotensive cases in group (A) while 94% restored by epinephrine in group (B).