Purpose: The aim of this study was to determine the relationship between Syntax (SYNergy between PCI with TAXUS and Cardiac Surgery) scoring (SS) system and contrast induced nephropathy (CIN) development in patients with acute coronary syndrome.

Materials and Methods: A total of 360 patients who were followed-up in the coronary intensive care unit between February 2016 and September 2017; were included in the study retrospectively. Exclusion criteria were previous coronary artery bypass graft; moderate-severe heart valve disease. Patients on dialysis and who had no coronary angiographic information were also not included. Patients were divided into two groups with and without contrast nephropathy. The independent predictors of contrast nephropathy were determined by multiple regression analysis.

Results: Of the patients, 273 (78%) were male. 79 patients (22%) developed CIN. The SS was found to be 16.2 ± 8.5 in patients with CIN and 13.5 ± 8.2 in those without CIN. According to the results of multiple regression analysis; age (Odds Ratio = 1.04; 95% confidence interval = 1.00 to 1.08), the amount of contrast agent (Odds Ratio = 1.05; 95% confidence interval = 1.03 to 1.06), SS (odds ratio = 1.86; 95% confidence interval = 1.81 to 1.91) were independent predictors for the development of CIN.

Conclusion: Coronary angiography and percutaneous coronary intervention in patients with acute coronary syndrome were found to be correlated with CIN. In this study, age, SS and the amount of contrast agent were independently correlated with the development of CIN.