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BLOOD TRANSFUSION INCREASES MORTALITY INDEPENDENT OF HEMOGLOBIN LEVELS IN ELDERLY PATIENTS UNDERGOING TRANSCATHETER AORTIC VALVE REPLACEMENT

Poster Contributions
Hall C
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Session Title: Valvular and Structural Heart Intervention
Abstract Category: 42. TCT@ACC-i2: Aortic Valve Disease
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Background: Baseline anemia is associated with transfusions and increased risk of mortality in patients undergoing cardiac surgery and percutaneous coronary intervention. The impact of baseline anemia in patients undergoing transcatheter valve replacement (TAVR) remains unclear.

Methods: Our cohort was divided into tertiles based on hemoglobin levels. We analyzed the impact of baseline anemia and transfusion on mortality.

Results: A total of 320 patients were included (n=114, 106, 100). Mean hemoglobin values among groups were 9.9 ± 0.7 mg/dL, 11.5 ± 0.4 mg/dL and 13.2 ± 0.8 mg/dL. Renal insufficiency was more prevalent in the lowest tertile (70% vs. 47.5% vs. 45.3%, p<0.001). STS scores were significantly higher in the lowest tertile (10.5 ± 4.9 vs. 9.6 ± 4.1 vs. 8.7 ± 3.8, p=0.01). Transfusion rates were increased in the lower tertile (50% vs. 37.7% vs. 26%, p=0.002). Death was similar at 30 days (5.3% vs. 5.7% vs. 6%, p=0.97) and at 1 year (20.2% vs. 22% vs. 17%, p=0.68). Transfusion was independently associated with mortality (OR 2.5, 1.4-4.3, p<0.01). Hemoglobin and hematocrit levels were not independently associated with mortality after both univariate and multivariate analysis.

Conclusion: In patients undergoing TAVR, baseline anemia was not associated with increased mortality despite a higher prevalence of renal insufficiency, and a higher predicted risk based on STS scores. However, blood transfusion was associated with a significantly increased risk of mortality and should be avoided if feasible.