

P2728 Glycaemic control and surgical site infection in postoperative cardiac surgery patients in Uruguay's reference centre (2014-2017)

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Background: The surgical intervention can cause transient stress hyperglycemia. Evidence supports hyperglycemia as a sensitive predictor of surgical site infection (SSI). Hyperglycemia in the postoperative is frequent and not exclusive to diabetics.

In Sanatorio Americano, in 2015, a stringent glycemic management protocol was implemented through continuous infusion of insulin in the postoperative of cardiac surgery (PPCS) as a strategy to improve glycemic control and contribute to reduce infections.

Objective: To evaluate the glycemic control in PPCS after the application of stringent glycemic management protocol and its impact on the SSI

Materials/methods: Prospective observational study of adult patients underwent cardiac surgery in Sanatorio Americano, 2014 - 2017 period. The highest level of capillary blood glucose was recorded in the first 24 hours after the surgery. Glycemic control level of 1.60 g/l was considered acceptable.

Mean and standard deviation (SD) were calculated for continuous variables, and relative frequency for categorical ones.

Mean glucose, proportion of patients with good glycemic control and SSI rate were compared, prior to the implementation of the protocol (year 2014) and afterwards (2015-2017).

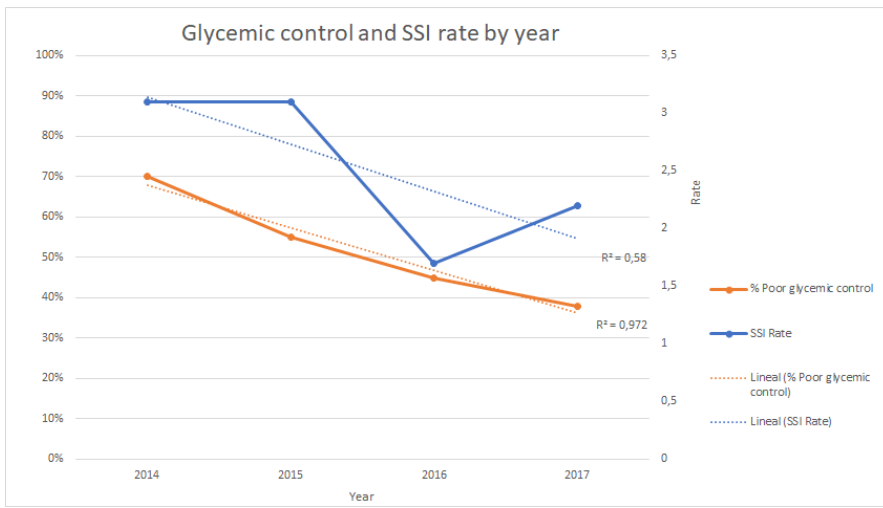
Results: 2287 patients were included (69.9% male), the average age was 65.4 years (SD 11.0), 28.9% diabetics. The 65.86% of surgeries were coronary artery bypass grafting, 34.14% valvular. The mean postoperative glycemia in 2014 was 2.29 g/l SD 0.53 g/l, which decreased significantly to 1.93 g/l SD 0.42 g/l in 2017, $p < 0.01$ (test t).

In 2014 only 30% of patients had good glycemic control, switching to 62% in 2017, $p < 0.01$ (test z).

After implementing protocol, glycemic control improved and the SSI rate decreased from 3.1 to 2.2, $p < 0.01$ (z test). The correlation coefficient between the proportion of patients with glycemic control and the SSI rate was 0.77

Conclusions: The application of the stringent glycemic control protocol was effective in reducing postoperative glycemia.

The better glycemic control in PPCS contributed to decrease SSI rate, both in diabetics and non-diabetics patients, strongly highlighting the importance of establishing tight glycemic control protocols in the first hours of the PPCS.



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