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ROLE AND RELEVANCE OF NURSERY SUPPORT IN MANAGEMENT AND PREPARATION OF DIABETIC PATIENTS WHO NEEDS A FDG-PET

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BACKGROUND-AIM

¹⁸F-FDG is the most frequently used radiopharmaceutical in PET scans. It enters into the cells by the same mechanisms of glucose and is particularly helpful in oncology, as glucose metabolism is basically increased in cancer cells. Blood glucose assay is mandatory before the injection of the radiopharmaceutical, owing to a competitive inhibition of FDG uptake caused by hyperglycaemia, which thus can reduce the sensitivity of the technique. In our facility, until 2010 the instructions to all the patients, enclosed the diabetic ones, concerning how to prepare for FDG-PET were given by the office staff and we observed that in a significant number of cases preparation was not ideal, as hyperglycaemia was found. For this reason we decided to define an operation protocol and committed diabetic patients management to the nursery staff.

Aim of this study was to verify if any improvement was obtained addressing diabetic patients preparation for FDG-PET scan to the nursery staff.

METHODS

we retrospectively analyzed blood glucose concentrations assayed at the time of FDG injection in the two groups of diabetic patients who had a FDG-PET in 2009 (212 pts), when no special commitment to the nursery staff was expected and in 2013 (185 pts), when this was routinely done.

RESULTS

we obtained a significant decrease, from 38%, to 23%, of the patients who had glycaemia higher than 160 mg/dl, and more impressively, no insulin injection was needed, while before this happened in 20 cases.

CONCLUSION

the protocol definition and the nursery staff involvement to instruct diabetic patients as to prepare for FDG-PET scans, reduced the number of patients who had high blood glycaemia at the time of radiopharmaceutical injection, so that no insulin injection was needed, increasing the accuracy of examination.