

## Considerations on Perioperative Silent Ischemia in Patients Undergoing Transurethral Resection of the Prostate

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### Perioperative assessment and evaluation commission of SBC

The subject of the article entitled “Perioperative evaluation by Holter in elderly patients subjected to prostatectomy”, published in this edition of the Archives of Brazilian Cardiology, is the assessment of silent ischemia and heart rhythm disturbances by dynamic electrocardiography on the day before the procedure. The results were compared with the findings of the method in the period in which the patients were in the surgical center environment<sup>1</sup>.

For a better understanding of the results, an initial consideration is the study population, which was comprised of thirty asymptomatic elderly patients. From a cardiovascular point of view, the minimum value of the risk for this population, taking into account only the age, is 8% by NCEP-ATP III; the risk increases to 10% in smokers, and rises to 12% in 1/3 of the population by the association with controlled high blood pressure. Therefore, the majority of the population has an estimated cardiovascular risk of at least 8 to 12%. Data on cholesterol levels were collected to determine the real cardiovascular risk for that population. This information is essential, because the ST-T changes found in Holter recordings, which according to studies in the literature vary between 9 and 39%<sup>2</sup>, are more frequently associated with the presence of silent ischemia in patients with diagnosed coronary disease<sup>3-5</sup>. Therefore, we must bear in mind that not all changes found in repolarization are related to the primary cause, because this is not a population with diagnosed coronary artery disease.

The clinical examination revealed that the patients were asymptomatic, with no anginal complaints and no heart complaints (our inference); they had no ECG changes or any sequelae of ischemic coronary events, and their chest X-ray showed a normal cardiac area. This led us to infer that this population had a good myocardial contractile reserve, and consequently a lower risk of cardiovascular complications.

With regard to the risk of an electric event, the threefold

presence of myocardial ischemia, low ejection fraction and ventricular arrhythmias should be taken into account. The evidence of good contractile reserve has already been mentioned, despite the presence of triggers (ectopic ventricular beats) and even repetitive activity (non-sustained ventricular tachycardia), which occurred in a higher percentage than that found in literature but had small density in number of episodes. The only remaining consideration is the change of repolarization as an expression of silent ischemia, whose comparative analysis was limited because the second Holter recording only lasted about 6 hours on average. Another limitation of the study was the perioperative follow up period, because the cardiovascular complications occur most often between 24 and 72 hours after surgery, and this period was not monitored by the authors.

Silent ischemia is not yet fully understood<sup>6</sup>, and this led the authors to expand the focus of the debate and to speculate whether the presence of silent ischemia in a patient with good contractile reserve, with the renin angiotensin system partially blocked by the use of ACE inhibitors, could be doing “ischemic pre-conditioning” and thereby rendering the patient better adapted to situations of stress such as surgery.

Finally, a word about the Guidelines<sup>1,7</sup>, which show no evidence that the Holter should be used in populations with no previously diagnosed coronary artery disease or in patients with atherosclerotic disease of the aorta who will be submitted to major vascular surgery<sup>4</sup>. This study confirmed the correctness of the current guidelines.

The search for a reduction in the risk of cardiovascular complications in the perioperative period should continue, but perhaps the focus should be turned on the efforts to better stratify the risk of atherosclerotic coronary artery disease, to diagnose the presence and magnitude of ischemia, with multiple tools, to improve the protection of the patient who will be submitted to surgery, and to monitor the patient during the post-operative and recovery period.

### Key Words

Ischemia; perioperative care; prostatectomy.

## References

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