

LECTURE PRESENTATION

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Up to date in inhalation anaesthesia: the desflurane

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Background

The use of halogenated anaesthetics in cardiac surgery is still controversial. Preconditioning and postconditioning are the well described mechanisms that explain the protective myocardial effect of specific drugs in order to prevent the occurrence and/or to reduce the size of a necrotic post-ischemic myocardial area [1]: they play a well recognized role in the “protective effect” of the halogenated anaesthetics. Preconditioning and postconditioning protect the myocardial cell from oxidative stress and take place through the activation of specific receptors and second messengers systems [2]. Desflurane has shown a higher preconditioning and postconditioning power that could be optimal at 6% of Minimum Alveolar Concentration (MAC) [3]. The solubility of the halogenated anaesthetics can be altered during cardiac surgery: Desflurane has shown a rapid wash-in and wash-out profile in cardiac “on pump” surgery [5,6].

Conclusions

Halogenated anaesthetics and especially desflurane protect myocardium from the peri-operative ischemic injury even in case of high risk elderly patients [7].

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