



Phosphodiesterase 5 inhibitors and adrenal incidentalomas



Phosphodiesterase 5 (PDE5) is a ubiquitous enzyme; it is localized, among other sites, in the adrenal cortex [1]. Inhibitors of PDE5 (PDE5i) are useful in the management of erectile dysfunction; they also promote tissue vascularization/angiogenesis [2]. Adrenal incidentalomas/adenomas are found in up to 10% of adults and their prevalence is higher with advancing age [3]. These – mostly benign – adenomas are known to be more vascularized than adrenocortical carcinomas [4]. Other phosphodiesterase isoforms (PDE2A, PDE11A, PDE8B and PDE8E) have been found in normal adrenals, macronodular adrenocortical hyperplasia and cortisol-producing adenomas [5]. The PDE5i tadalafil inhibits PDE11A and increases cortisol secretion [6]. In a small retrospective study of 32 men using PDE5i, adrenal incidentalomas were noted in five [7]. Consequently, we believe that the systematic use of PDE5i may be linked to the *de novo* appearance of adrenal lesions (this remains to be assessed preferably with a large controlled study). Such lesions could be the result of the angiogenetic potential of PDE5i and/or their action on other PDE isoforms in the adrenals. Any positive association between PDE5i use and appearance of adrenal incidentalomas could be of clinical importance, since the number of older men grows worldwide, with a concomitant increase in potential PDE5i users.

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Declaration of Competing Interest

None.

References

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