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Resumo	<p>Resveratrol is a polyphenol found naturally in fruits and plants. Recently, studies in humans and animal models have suggested beneficial properties of this polyphenol, such as improvements to metabolic and lipid profiles, along with antioxidant, anti-inflammatory and anti-proliferative effects. In the urogenital tract (UGT), resveratrol has also been tested clinically and experimentally as a therapeutic drug in several diseases; however, the translational efficacy of resveratrol, especially in UGT, is still a matter of debate. In the present review, we address the pre-clinical efficacy of resveratrol in UGT-related dysfunctions, focusing on lower urinary tract symptoms, non-cancerous prostatic disease (benign prostatic hyperplasia and prostatitis) and erectile dysfunction. In vitro studies indicate that resveratrol reduces inflammatory markers and oxidative stress, and improves endothelial function in UGT organs and cells isolated from humans and animals. Despite displaying low oral bioavailability, in vivo administration of resveratrol largely improves erectile dysfunction, benign prostatic hyperplasia, prostatitis and voiding impairments, as evidenced in different animal models. Resveratrol also acts as a microbiota modulator, which may explain some of its beneficial effects in vivo. In contrast to the large amount of pre-clinical data, there are insufficient clinical trials to establish resveratrol treatment efficacy in human UGT-related diseases. In summary, we provide an overview of the in vivo and in vitro efficacy of resveratrol in animal and human UGT dysfunctions, which may support future clinical trials.</p>
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