Potencial atividade dos withanolidos no tratamento do cancro da mama: uma revisão da literatura

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Enquadramento: O cancro da mama (CM) é a neoplasia que apresenta maior incidência nas mulheres portuguesas [1]. A cirurgia, a radioterapia e a quimioterapia contituem as principais opções disponíveis entre os tratamentos convencionais. Porém, as pacientes têm desenvolvido resistência a alguns compostos usados na quimioterapia. Os withanolidos têm vindo a ser identificados como compostos promissores no tratamento do cancro da mama [2,3]. Estes compostos estão presentes em plantas da família *Solanaceae*, como a *Withania somnifera*, sendo a withaferina A a mais estudada [3–5]. **Objetivo:** Discutir a eficácia dos withanolidos no tratamento do CM, assim como os diferentes mecanismos de ação associados aos mesmos. **Métodos:** Revisão da literatura com pesquisa nas bases de dados ScienceDirect® e Pubmed®, sem limite temporal e utilizando como palavras-chave: "withanolidos", "cancro da mama" e "tratamento". Foram incluídos estudos *in vitro* e *in vivo*, com withanolidos naturais (extraídos de plantas) e sintéticos (obtidos comercialmente). **Resultados:** Analisaram-se 44 estudos (32 *in vitro*, 4 *in vivo,* e 8 *in vitro* e *in vivo*), sendo a withaferina A o composto mais predominante nos estudos, e que apresenta evidências de atividade anticancerígena [6]. Outras plantas contendo withanolidos foram referidas nos estudos analisados, como o *Tubocapsicum anomalum* [7,8] e a *Physalis peruviana* [9,10]. As doses de whitanolidos utilizadas nos diferentes estudos variaram entre 2 e 5 µM para os estudos *in vitro* [11–13] e entre 4 a 8 mg/kg para os estudos *in vivo* [14–16] Os mecanismos de ação associados aos withanolidos foram a interrupção de diferentes fases do ciclo celular [4,10], indução da apoptose [3,17] e redução da proliferação celular [18, 19]. **Conclusões**: Os resultados evidenciam o potencial dos withanolidos no tratamento do cancro da mama, mas carecem ainda de ensaios clínicos que demonstrem a sua eficácia e segurança em humanos.

Palavras-chave: Withanolidos; Cancro da mama; Tratamento.

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