Myelofibrosis – A Different Sort of Malignancy and a Case History of Control

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References

1. Stein BL, Moliterno AR. Primary myelofibrosis and the myeloproliferative neoplasms: the role of individual variation. *JAMA*. 2010; 23;303(24):2513-8. PMID: 20571018.
2. Tefferi A, Pardanani A. Myeloproliferative Neoplasms: A Contemporary Review. *JAMA Oncol*. .105-97:(1)1;2015 PMID: 26182311.
3. Rocky DC, et al. Fibrosis – a common pathway to organ injury and failure. *NEJM*. 2015;19:372(12):1138-49. PMID: 25785971
4. Gordon KJ, Blobe GC. Role of transforming growth factor-beta superfamily signaling pathways in human disease. *Biochim Biophys Acta*. 2008;1782(4):197-228. PMID: 18313409.
5. Blobe GC, et al. Role of transforming growth factor beta in human disease. *NEJM*. 2000;342(18):1350-8. PMID: 10793168.
6. Massague J. TGFβ signaling in context. *Nat Rev Mol Cell Biol*. 2012;13(10):616–630. PMID: 22992590.
7. Bonis PA, et al. Is liver fibrosis reversible? *NEJM*. 2001;344(6):452-4. PMID: 11172184.
8. Rockey DC, et al. Fibrosis--a common pathway to organ injury and failure. *NEJM*. 2015;372(12):1138-49. PMID: 25785971.
9. Leask A, Abraham DJ. TGF-beta signaling and the fibrotic response. *FASEB J*. 2004 May;18(7):816-27. PMID: 151178.
10. Heldin CH, et al. Mechanism of TGF-beta signaling to growth arrest, apoptosis, and epithelial-mesenchymal transition. *Curr Opin Cell Biol*. 2009;21(2):166-76. PMID: 19237272
11. Ren J, et al. Quercetin Inhibits Fibroblast Activation and Kidney Fibrosis Involving the Suppression of Mammalian Target of Rapamycin and β-catenin Signaling. *Sci Rep*. 2016;6:23968. PMID: 27052477.
12. Baowen Q, Yulin Z, et al. A further investigation concerning correlation between anti-fibrotic effect of liposomal quercetin and inflammatory cytokines in pulmonary fibrosis. Eur J Pharmacol 2010;642(1-3):134-9. PMID: 20510684.
13. Aguilar PRC, Honoré SM et al. Hepatic fibrogenesis and transforming growth factor/Smad signaling activation in rats chronically exposed to low doses of lead. J App Toxicol 2014;34(12):1320-31. PMID: 25493318.
14. Sośnicki S, Kapral M, ND Węglarz L. Molecular targets of metformin antitumor action. Pharmacol Rep 2016 Oct;68(5):918-25.PMID:27362768.
15. Rosilio C, Ben-Sahra I, Bost F(3), and Peyron J. Metformin: a metabolic disruptor and anti-diabetic drug to target human leukemia. Cancer Lett 2014;346(2):188-96. PMID: 24462823.
16. Cufí S, Vazquez-Martin A, Oliveras-Ferraros C, et al. Metformin against TGF) mesenchymal transition-to-induced epithelial-βEMT): from cancer stem cells to aging-associated fibrosis. Cell Cycle 2010;9(22):4461-8. PMID: 21088486.
17. Cheng K and Hao M. Metformin Inhibits TGF-β1-Induced Epithelial-to-Mesenchymal Transition via PKM2 Relative-mTOR/p70s6k Signaling Pathway in Cervical Carcinoma Cells. Int J Mol Sci 2016 Nov 30;17(12). PMID: 27916907.
18. Aguilar PRC, Honoré SM et al. Hepatic fibrogenesis and transforming growth factor/Smad signaling activation in rats chronically exposed to low doses of lead. J App Toxicol 2014;34(12):1320-31. PMID: 25493318.
19. Hama S, Uenishi S, and Yamada A et al. Scavenging of hydroxyl radicals in aqueous solution by astaxanthin encapsulated in liposomes. Biol Pharm Bull 2012;35(12):2238-42. PMID: 23207776.
20. Lamson DW and Brignall MS. Antioxidants and Cancer III: Quercetin. Altern Med Rev 2000;5(3):196-208. PMID: 10869101
21. Brito AF, Ribeiro M, Abrantes AM et al. Quercetin in Cancer Treatment, Alone or in Combination with Conventional Therapeutics? Curr Med Chem. 2015;22(26):3025-39. PMID: 26264923.
22. Khan F, Niaz K and Maqbool F et al. Molecular Targets Underlying the Anticancer Effects of Quercetin: An Update. Nutrients 2016;8(9). PMID: 27589790.
23. Senggunprai L, Kukongviriyapan V et al. Quercetin and EGCG exhibit chemopreventive effects in cholangiocarcinoma cells via suppression of JAK/STAT signaling pathway. Phytother Res 2014;6:841-8. PMID: 24038588.
24. Halicka HD and Zhao H et al. Potential anti-aging agents suppress the level of constitutive mTOR- and DNA damage- signaling. Aging (Albany NY) 2012;4(12):952-65. PMID: 23363784.
25. Guglielmelli P, Barosi G et al. Safety and efficacy of everolimus, a mTOR inhibitor, as single agent in a phase 1/2 study in patients with myelofibrosis. Blood 2011;118(8):2069-76. PMID: 21725.
26. Lamson DW and Plaza SM. The anticancer effects of vitamin K. Altern Med Rev 2003;8(3):303-18. PMID: 12946240.
27. Zhou L(1), McMahon C, Bhagat T et al. Reduced SMAD7 leads to overactivation of TGF-beta signaling in MDS that can be reversed by a specific inhibitor of TGF-beta receptor I kinase. Cancer Res 2011;71(3):955-63. PMID: 21189329.