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CHEMOPREVENTION AND SCREENING OF PROSTATE AND BREAST CANCERS

23IN Major issues in chemoprevention of prostate and breast cancer.

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Two major obstacles to the development of chemoprevention agents in prostate and breast cancer is the availability of relevant animal models (compared to colon cancer), small knowledge base about the biology of the preclinical phases of these cancers, and lack of well-established biological, or other markers for studying the human disease. Several useful clinical models to explore the early stages of prostate cancer development have been established HGPIN, preprostatectomy, and rising PSA after prostatectomy. The efficacy of PSA as a risk marker remains to be validated. A number of agents are being tested for activity in prostate cancer including lycopene, 4-(hydroxyphenyl) retinamide, DFMO, sulindac sulforme as well as soy supplementation. Considering the success of antiestrogens in breast cancer very little is being pursued with antiandrogens in prostate cancer prevention. A large chemoprevention phase III randomized trial (Finasteride versus placebo) in normal men has finished accrual and another trial has just begun (2X2 factorial SELECT-Selenium, vitamin E). In breast cancer the usage of mamographic density, IGF-I, and other markers are being studied as a modulatable surrogate. There is a great deal of interest in developing better and more potent SERMS as well as more effective retinoids for breast cancer prevention An alternative approach is examining the role of low (1-2 mg) doses of Tamoxifen The current STAR trial compares Tamoxifen versus Raloxifen in a large randomized trial of normal women and has just begun. The future for achieving the effective prevention of most prostate and breast cancers seems bright.