

Cancer Stem Cell and Significance of Drug Usage

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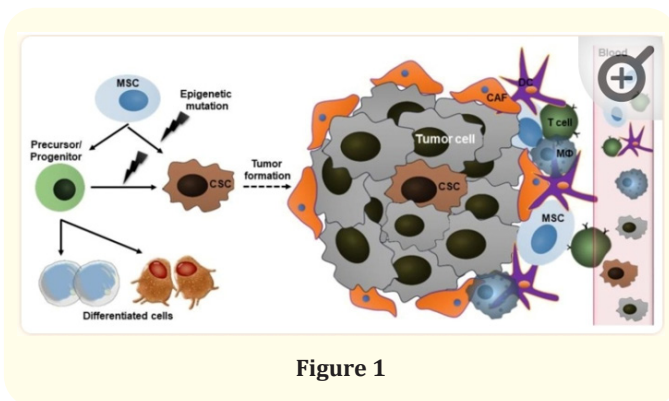
***Corresponding Author:** Kunal Joon, Noida International Institute of Medical Sciences, Haryana, India.**Received:** May 03, 2024**Published:** May 17, 2024© All rights are reserved by **Kunal Joon**.**Abstract**

It deals with usage of drug on the c cancer stem cell on various cancers like prostate cancer and also the affect of various drugs on the cancer and stem cell theory relevance in it.

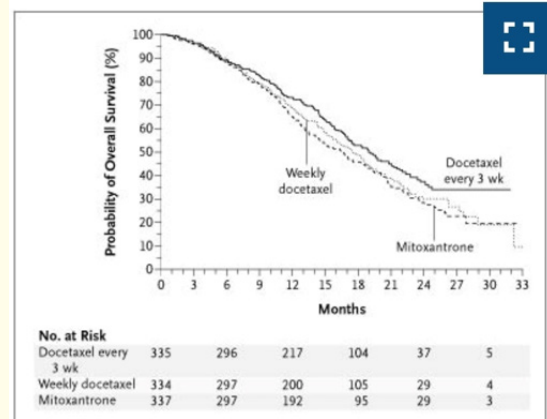
Keywords: Epigenetic Modification; Tumor; Progenitor; Metastases; Tumor Stemness

Tumor formation

Figure 1 Tumor formation and its complex microenvironment. Epigenetic mutations in [1] normal stem cells or precursor/progenitor cells lead to generation of CSCs, which play crucial roles in tumor stemness, initiation, maintenance, and metastasis. Tumor [2] niche contains not only tumor cells and CSCs but also cancer-associated immune cells (T-cells, macrophages (MΦ), dendritic cells (DC)), cancer-associated fibroblasts (CAF), and other cells. In addition, MSCs are recruited to tumor by chemoattractant factors [3] secreted from all those cells (CXCL16, SDF-1, CCL-25, and IL-6, TNF-α, and IL-1β), [4] playing crucial roles in tumor progression [5].

**Figure 1****Significance of immune monitoring (case of patient)**

Adequate sample collection for immunologic testing was available for 49 patients: 18 [6] treated with placebo (40% of total); 31 treated with sipuleucel-T (38% of total). The PA2024 T-cell stimulation index is a measure of specific T-cell responsiveness against the target antigen. This exploratory analysis was performed in a subset of patients for [7] whom cells could be processed within 24 hours of collection, thus precluding the need to freeze the cells before analysis. All analyses were performed before study unblinding. The median ratio of the T-cell stimulation index at 8 weeks versus baseline (preinfusion) was approximately eight-fold higher in sipuleucel-T- versus placebo-treated patients (16.91 Wilcoxon v 1.99; Wilcoxon rank sum P <.001) [8].

**Figure 2**

Primary end point, time to disease progression (intent-to-treat population). HR, hazard ratio.

Survival and cumulative hazard curves with 95% Cis for the ovarian cancer study. Std. Err = standard error. (A) Kaplan–Meier survivor function, (B) cumulative incidence curve, (C) cumulative hazard function, (D) hazard function (smoothed).

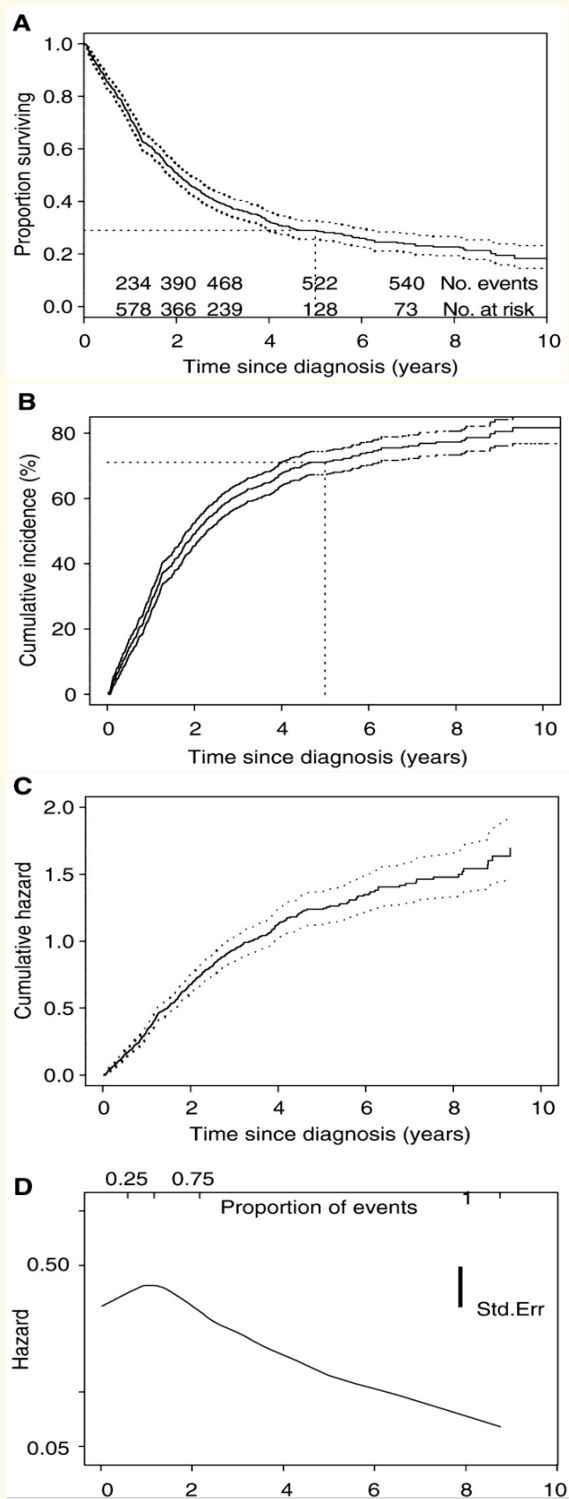


Figure 3

Discussion

- Tumors formation
- Primary end point and progression of cancer
- Methotrexate hazard curve

Conclusion

Proliferation of tumor formation from progenitor cell is explained also analysis of progression of disease and Primary end point defined.

Bibliography

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