Reviewer's report

Title: Gene expression profiling revealed novel mechanism of action of Taxotere and Furtulon in prostate cancer cells

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Reviewer: Rajvir Dahiya

Reviewer's report:

Excellent paper.

The authors have analyzed the Gene expression profiling in prostate cancer cells after treatment with Taxotere and Furtulon using Affymetrix Human Genome U133A Array analysis, real-time PCR and Western Blot analysis. The results of these experiments suggest that Taxotere and Furtulon down-regulated some genes critical for cell proliferation, cell cycle progression, transcription factor, cell signaling, and oncogenesis, and up-regulated some genes related to the induction of apoptosis, cell cycle arrest, and differentiation in both cell lines. Taxotere and Furtulon also up-regulated some genes responsible for chemotherapeutic resistance, suggesting the induction of cancer cell resistance to these agents. In conclusion, Taxotere and Furtulon caused the alternation of a large number of genes, many of which may contribute to the molecular mechanisms by which Taxotere and Furtulon inhibit the growth of prostate cancer cells. This information could be utilized for further mechanistic research and for devising optimized therapeutic strategies against prostate cancer.

This is an interesting study and provides a novel direction in the field of Taxotere and Furtulon action through modulation of various genes in prostate cancer.

What next?: Accept without revision

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No