Editorial

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Bone Metastasis Diagnosis, Blood Biomarker Detections

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ABSTRACT

Cancer bone metastasis was a common clinical phenotype, especially occurred in categories of breast, prostate and lung cancer (general incidence >30%). Early diagnosis may improve human survival and, drug treatment quality. To create paradigms of clinical treatment, overall study of blood biomarkers is indispensable. This editorial discusses bone metastasis diagnosis by detecting cancer biomarkers.

Keywords: Bone Cancer; Neoplasm Metastasis; Drug Treatment; Tumor Models; Experiment Study

Introduction

Cancer is the secondary leading cause of human mortality worldwide [1,2]. Cancer bone metastasis is one of frequent cancer locations for metastasis colony, especially for categories of breast, prostate and lung cancer (general incidence >30%) [3-7]. Early diagnosis may improve human survival and, drug treatment quality. To create paradigms of clinical treatment, overall study of blood biomarkers is indispensable.

Clinical Evidence and Diagnosis

There are a lot of different anticancer drugs in the clinic. How to evaluate drug responses and clinical drug selection plays key roles. Drug sensitivity testing is widely used for drug selection in the clinic [8-14]; However, different types of personalized medicine strategies are also very important for clinical trials [8-19].

Discussion

Drug targets and responses to bone metastasis have different types, categories and systems [20-23]. At present, several types of drug treatment have been promising, such as herbal medicine [24-26], personalized medicine (PM) [9-19], drug combination [27-28] and pharmaceutical innovation [29]. These kinds of therapeutic study can be very useful for drug selection in the clinic. Cancer bone metastatic study is important to improve in diagnosis and therapeutic selection. More mimic experimental tumor models to clinical situations should be built in present experimental study. Blood biomarker detection can help these disciplines. By update experimental models, clinical success may be reached.

Personalized Medicine

PM can promote clinical drug treatment. How to implement them is a modern challenge [15,19]. However, it is difficult to use conventional PM for bone metastasis. Bone metastasis is difficult to observe in the clinic. New pathways should be explored to enrich targets and mechanisms in circulating tumors and biomarkers [30]. Knowledge should be accumulation for biomarker medical significance in the clinic. Many new discoveries could be expected from these preclinical evaluations and clinical diagnosis.

Conclusion

More work should be done to study biomarkers in human blood in bone metastasis patients. Via these processes, high-quality PM could be developed.

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