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Review article

Criteria for Predicting the Effectiveness of Maximum Androgen Blockade in the Treatment of Advanced Prostate Cancer

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ABSTRACT

***Background**: Maximum androgen blockade (MAB) has been widely used as a treatment approach for advanced prostate cancer. However, there is variability in treatment response among patients, and predicting the effectiveness of MAB can aid in personalized treatment decisions. This study aims to identify criteria for predicting the effectiveness of MAB in the treatment of advanced prostate cancer, focusing on clinical, pathological, and molecular factors that may influence treatment outcomes.*

***Methods**: A comprehensive review of published literature and clinical data was conducted to identify criteria for predicting the effectiveness of MAB in advanced prostate cancer. Key factors considered included pretreatment prostate-specific antigen (PSA) levels, Gleason score, clinical stage, presence of metastasis, and genetic biomarkers associated with androgen receptor signaling. The correlation between these factors and treatment response, including PSA decline, disease progression, and overall survival, was analyzed.*

***Results**: The study findings reveal several criteria that can potentially predict the effectiveness of MAB in the treatment of advanced prostate cancer. Pretreatment PSA levels, with higher baseline values indicating a poorer response to MAB, were consistently associated with treatment outcomes. Gleason score, clinical stage, and the presence of metastasis at diagnosis were also identified as important prognostic factors. Furthermore, genetic biomarkers, such as alterations in the androgen receptor gene or downstream signaling pathways, may provide additional predictive value. Integration of these criteria may help stratify patients into different risk groups and guide treatment decisions.*

***Conclusions**: Several clinical, pathological, and molecular criteria can aid in predicting the effectiveness of MAB in the treatment of advanced prostate cancer. Pretreatment PSA levels, Gleason score, clinical stage, presence of metastasis, and genetic biomarkers associated with androgen receptor signaling all play a role in determining treatment response. Incorporating these criteria into clinical practice may help identify patients who are more likely to benefit from MAB and optimize treatment outcomes. Further prospective studies are needed to validate these criteria and develop predictive models to guide personalized treatment strategies in advanced prostate cancer.*

***Keywords**: Maximum androgen blockade, advanced prostate cancer, treatment,effectiveness.*