Metformin: Preliminary Results of Trial in Advanced Prostate Cancer (MANSMED)



In a mini-oral presentation at this year's European Society of Medical Oncology (ESMO) 2020 Virtual Annual Meeting, Dr. Reham Alghandour presented the results of the MANSMED prospective randomized controlled trial. This trial recruited men with high risk localized or metastatic hormone-sensitive prostate cancer. Patients were randomized in a 1:1 fashion to receive standard of care with combined androgen blockade using LHRH agonist and bicalutamide 50mg daily with or without metformin 850 mg PO BID.

The primary study outcome was time to castrate-resistant prostate cancer and the secondary outcomes were overall survival and PSA response rate.

The authors recruited 124 of whom 62 were randomized to each of the intervention and control arms. Of a median follow-up of 18 months, 12 patients randomized to metformin died and 17 randomized to control disease.

In the assessment of the primary outcome, patients receiving metformin had a longer time to castration-resistant disease (median 29 months, 95% confidence interval 25 to 33) than those randomized to placebo (20 months, 95% confidence interval 16 to 24, p=0.01). This effect was most pronounced in men with high-risk localized disease and node-positive disease, marginal in those with low volume metastatic disease, and there was no benefit in those with high volume metastatic disease. There were no statistically significant differences in overall survival or PSA response rate.