SEPTEMBER 2022

Outcomes in men with **metastatic castration-resistant prostate cancer** and tumors with certain androgen receptor (*AR*) mutations

This summary contains information from the scientific poster:

Real-world outcomes in patients with metastatic castration-resistant prostate cancer (mCRPC) and tumors with androgen receptor (*AR*) 878/875 mutations

CLICK HERE TO VIEW THE SCIENTIFIC POSTER

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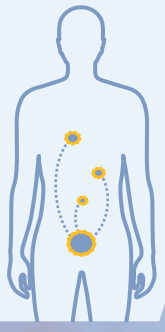
What is prostate cancer?

Prostate cancer is cancer of the prostate gland. **Male hormones (androgens)**, including testosterone, **stimulate cancer growth by binding and activating androgen receptors** in prostate cancer cells

- **Castration-sensitive prostate cancer** is cancer that is controlled by **keeping the testosterone level low**, as if the testicles were removed (called the **castrate level**)
- **Castration-resistant prostate cancer** is cancer that is still growing even when the testosterone levels are at or below the castrate level

Metastatic prostate cancer is cancer that **started in the prostate gland and has spread** to other parts of the body



What are mutations?

Mutations are **changes in the DNA** of a cell that **may affect the way the cell behaves**

Why are mutations important in prostate cancer?

Some mutations are inherited and make it **more likely** that a man will **develop prostate cancer** and/or **metastatic prostate cancer**

Other mutations can develop in prostate cancer cells during cancer treatment (called acquired mutations) and **cause men to stop responding to current therapies**

What mutations were examined in this study and why?

This study examined **2 acquired mutations** that can occur in the **androgen receptor (*AR*)** gene in prostate cancer tumor cells called ***AR* T878X and *AR* H875Y**

In previous studies, these mutations have been shown to **arise in prostate tumors that have stopped responding to current therapies** and are **associated with worsening disease** in men with prostate cancer

However, there is **very little known** about **how many men** with prostate cancer in the real world have these mutations and **how these mutations could affect their outcomes**

This summary **describes a study** in men with metastatic prostate cancer using medical information from a database

The **main aims** of this study were to

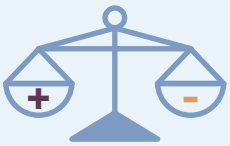
- Determine **how many men** have prostate tumors with the *AR* T878X and/or the *AR* H875Y mutation
- Compare **outcomes** in men whose tumors did or did not have these mutations

Study Design

Anonymous medical information from **men with metastatic castration-resistant prostate cancer** was gathered from a **large database** of patients treated for advanced cancers in the United States

The study divided the men into **2 groups:** one group whose tumors **had the mutations (*AR* 878/875+)** and one group whose tumors **did not have the mutations (*AR* 878/875-)**

- Men were **matched** based on certain **patient and disease characteristics** to ensure balance between the 2 groups
- Men with *AR* 878/875+ tumors were **analyzed if the mutation was found before they received their first treatment** for metastatic castration-resistant prostate cancer



How long the **men survived** and how soon they had to **switch to a new treatment** were **compared between the 2 groups**

Main Findings

11% of men with **metastatic castration-resistant prostate cancer** in the study had prostate tumors that were ***AR* 878/875+**

- Men whose **tumors had the mutations did not survive as long**

Half of the men **with** the mutations lived **16.1** MONTHS OR LONGER

Half of the men **without** the mutations lived **50.7** MONTHS OR LONGER

- Men whose **tumors had the mutations had to switch to a new treatment sooner**, suggesting that their tumors became **resistant to treatment sooner**

Half of the men **with** the mutations switched treatments after **5.0** MONTHS OR LONGER

Half of the men **without** the mutations switched treatments after **11.7** MONTHS OR LONGER

- Among men who received a **newer hormone therapy as part of their first treatment** for metastatic castration-resistant prostate cancer, **those whose tumors had the mutations did not survive as long**

Half of the men **with** the mutations lived **16.4** MONTHS OR LONGER

Half of the men **without** the mutations lived **59.9** MONTHS OR LONGER

- Among men who received a **newer hormone therapy as part of their first treatment** for metastatic castration-resistant prostate cancer, **those whose tumors had the mutations had to switch to a new treatment sooner**

Half of the men **with** the mutations switched treatments after **4.5** MONTHS OR LONGER

Half of the men **without** the mutations switched treatments after **13.9** MONTHS OR LONGER

TAKE-HOME MESSAGE

These findings show that men with **metastatic castration-resistant prostate cancer** with ***AR* 878/875+** tumors have **poorer outcomes** and **may need new treatment options**

Who sponsored this study?

This study was sponsored by **Arvinas Androgen Receptor, Inc.**

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