Overall Summary

• Overactive bladder (OAB) is a condition where the urinary muscles will spasm unexpectedly and try to squeeze urine out of the bladder.

• Symptoms can include sudden and uncontrollable need to urinate, frequent urination, and being unable to hold urine (urinary incontinence) and can be different for every patient.

• Other treatments are available but do not work for all patients or may stop working.

• This study tested onabotulinimtoxinA/hydrogel mixture given through a catheter (small tube into the bladder) to patients with OAB and urinary incontinence.

• This study used a placebo, which looks like the treatment but has no active medicine in it.

• This study took place from October 2017 to July 2020 in the United States and Canada.

• The study had two parts, Stage 1 to evaluate safety of the study treatment and Stage 2 to determine the dose for future studies. 89 adults participated in Stage 1 and another 292 patients participated in Stage 2.

• Patients in Stage 1 were given placebo or onabotulinimtoxinA/hydrogel mixture. Patients in Stage 2 were given one of 4 different doses of onabotulinimtoxinA/hydrogel mixture or placebo.

• The main goal of the study was to see if treatment with onabotulinimtoxinA/hydrogel mixture given through a catheter lowered the number of urinary incontinence episodes per day for patients in Stage 2 and if patients had any medical events during the study.

• 33.7% of patients in Stage 1 and in 50.7% of patients Stage 2 had medical events. Medical events are unfavorable or unintended symptoms that patients had during the study that may or may not be considered by the study doctor to be related to the study treatment.

• Around 7.9% of patients in Stage 1 and 4.8% of patients in Stage 2 had side effects. Side effects are medical events considered by the study doctors to be at least possibly related to study treatment.

• The side effects in more than one patient were dysuria (painful or difficulty urinating), asymptomatic bacteriuria (bacteria found in urine sample without causing any symptoms), urinary tract infection (UTI), and bladder pain in Stage 2.

• This study found that treatment with onabotulinimtoxinA/hydrogel mixture given through a catheter was not better than treatment with placebo in lowering the number of urinary incontinence episodes per day.

• There are currently no plans to further study onabotulinimtoxinA/hydrogel mixture given through a catheter in patients with OAB and urinary incontinence.

• If you participated in this study and have questions about your individual care, contact the doctor or staff at your study site.
1. General information about the study

1.1. What was the main objective of this study?

Overactive Bladder (OAB) is a condition where the urinary muscles spasm unexpectedly and try to force urine out of the bladder. This can lead to the sudden and uncontrollable need to urinate and leaking of urine (urinary incontinence).

The treatments used for OAB and urinary incontinence do not work the same for all patients. Symptoms may not improve for some patients despite treatment. Because of this, researchers are looking for different treatments for patients with OAB and urinary incontinence.

This study used a medicine called onabotulinumtoxinA plus hydrogel. OnabotulinumtoxinA works by reducing spasming or contracting of bladder muscles and is currently approved for the treatment of OAB and urinary incontinence when given by injection into the bladder with a needle. This study looked at the use of onabotulinumtoxinA/hydrogel mixture given to patients through a catheter (small tube placed directly into the bladder). Hydrogel works to keep onabotulinumtoxinA in the bladder.

This study was planned as a Phase 2, double-blind, randomized study.

- **Phase 2** studies test potential new treatments in a small number of patients with a condition or disease. In this Phase 2 study, the study doctors looked at the benefits of study drug in patients. The study doctors also looked for any medical events or side effects patients may have had after treatment with study drug.

- **Medical events** are unfavorable or unintended symptoms that patients had during the study that may or may not be considered by the study doctor to be related to study drug/treatment.

- **Side effects** are medical events considered by the study doctors to be at least possibly related to study treatment.

- This study was **double-blinded**, which means that neither the patients nor the study doctors knew who was given which study drug/treatment. This ensures that no study results were influenced.

- A computer program was used to randomly (by chance) put the patients into groups. This process is called **randomization**, which helps make the groups similar and reduces the differences between the groups. Randomization allows the study results to be compared as accurately as possible.
1.2. When and where was the study done?

This study took place from October 2017 to July 2020 in Canada and the United States.

2. What patients were included in this study?

Adult patients with OAB and urinary incontinence were eligible to participate in this study. Patients had to have OAB and urinary incontinence for at least 6 months before joining the study and had not responded well to earlier treatment.

Stage 1 included 89 patients. There were more women (89%) than men (11%) and the average age of patients was 57 years. Patient ages ranged from 18 to 75 years of age.

Stage 2 included 292 patients. There were more women (91%) than men (9%) in the study. The average age of patients was 60 years. Patient ages ranged from 22 to 75 years of age.

OAB and urinary incontinence is more common in women due to a variety of factors that can include age, hormones, and childbirth.
3. Which medicines were studied?

The medicine in this study was onabotulinimumtoxinA/hydrogel mixture. Study doctors tested different doses of onabotulinimumtoxinA/hydrogel mixture compared to placebo (no medicine) in patients with OAB and urinary incontinence. Study treatment was given to patients through a catheter. Patients completed a bladder diary throughout the study to keep track of the number of urinary incontinence episodes they had per day.

In Stage 1, patients were randomized to receive onabotulinimumtoxinA/hydrogel mixture or placebo/hydrogel mixture in order to evaluate the safety of the treatment. The specific dose of onabotulinimumtoxinA in Stage 1 was based on when the patient joined the study. Patients in each dose group were given a single dose of treatment and followed for 12 weeks. After 6 weeks, safety data was reviewed and the next dose group could begin treatment.

In Stage 2, patients were randomized to receive 1 of 4 different doses of onabotulinimumtoxinA/hydrogel mixture or placebo/hydrogel mixture to find the best dose for further study. Patients in each dose group were given a single dose of treatment and followed for 24 weeks.

Neither the patients nor the study doctors knew what treatment patients were given in Stage 1 or Stage 2.

The diagram below shows how the study was organized.
4. What were the side effects?

Side effects are unwanted medical events that were considered by the study doctor to be at least possibly related to study drug.

A side effect is serious if it leads to death, is life-threatening, puts a patient in the hospital, keeps a patient in the hospital for a long time, or causes a disability that lasts a long time.

No patient in Stage 1 or Stage 2 had serious side effects during the study.

No patient in Stage 1 or Stage 2 died during the study due to side effects or serious side effects.

About 7.9% of patients (7 patients) in Stage 1 had side effects during the study. Each side effect happened in one patient.

About 4.8% of patients (14 patients) in Stage 2 had side effects during the study. The table below shows information about the common side effects, which happened in at least 2 patients in this study. The most common side effects in Stage 2 were asymptomatic bacteriuria (bacteria found in urine sample without causing any symptoms), bladder pain, dysuria (painful or difficult urination), and urinary tract infection (UTI).

Across the whole study, patients who took higher doses did not necessarily suffer from more side effects. This meant that this study showed no link between the dose and the number of side effects patients had.
5. What were the overall results of the study?

The study was completed as planned. The main goal of this study was to see if patients in Stage 2 lowered their number of urinary incontinence episodes per day after 12 weeks of treatment and if patients in Stage 1 or Stage 2 had any medical events during the study. Medical events are unfavorable or unintended symptoms that patients had during the study that may or may not be considered by the study doctor to be related to the study drug/treatment.

In this study, 33.7% of patients (30 patients) in Stage 1 and 50.7% of patients (148 patients) in Stage 2 had at least one medical event during the study. The number of medical events were similar across all onabotulinimtoxinA/hydrogel mixture dose levels and placebo. Also, higher doses of onabotulinimtoxinA did not give patients more medical events than lower doses.

This study showed that in Stage 2, patients treated with onabotulinimtoxinA/hydrogel mixture did not have fewer urinary incontinence episodes per day 12 weeks after treatment when compared to patients treated with placebo/hydrogel mixture. Urinary incontinence episodes were documented by patients in a bladder diary.

6. How has the study helped patients and researchers?

The study showed that onabotulinimtoxinA/hydrogel mixture delivered through a catheter was not more effective in the treatment of patients with OAB and urinary incontinence when compared to placebo/hydrogel mixture. Because it did not show improvement in symptoms of OAB and urinary incontinence, there are currently no plans to further study onabotulinimtoxinA/hydrogel mixture delivered through a catheter in patients with OAB and urinary incontinence.

This summary only shows the results from this study, which may be different from the results of other studies.

7. Are there any plans for future studies?

Multiple studies of onabotulinimtoxinA are ongoing and planned in patients with a wide range of conditions. There are currently no plans to further study onabotulinimtoxinA/hydrogel mixture delivered through a catheter in patients with OAB and urinary incontinence.

8. Who sponsored this study?

This study was sponsored by AbbVie. This summary was reviewed for readability by a patient advocacy group.
9. Where can I find out more information about this study?

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<th>Title of Study</th>
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| Clinicaltrials.gov | NCT03320850  
https://clinicaltrials.gov/ct2/show/NCT03320850?term=1839-201-021&draw=2&rank=1                                                                 |
| Study Sponsor | AbbVie, Inc.  
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Thank You

AbbVie wants to thank all the participants for their time and effort that went into making this study possible.

Clinical study participants help advance science!