

INCOBOTULINUMTOXINA INJECTIONS INTO THE SALIVARY GLANDS FOR SIALORRHEA: LUIGI SACCO HOSPITAL EXPERIENCE IN MILAN

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Introduction

Botulinum toxin is a valid therapeutic option for **sialorrhea** in **neurological patients**.

The most concerning sequelae in this group of patients is **posterior drooling**, which occurs unseen in the hypopharynx and can lead to aspiration pneumonia. Prevention of respiratory infections may be especially critical for the survival of this population.

In July 2018, the US Food and Drug Administration (FDA) approved incobotulinumtoxinA (**Xeomin**[®]) for adult patients with sialorrhea, making this the first and only **neurotoxin** with this indication in the United States. The **aim** of this **study** is to investigate the **safety** and **efficacy** of **incobotulinumtoxinA** injection into the salivary glands for the **treatment** of **sialorrhea** in neurological patients

Methods

We treated 1 **patient** who had received a diagnosis of **motoneuron disease**. Approval was obtained from the appropriate Institutional Review Board. Written informed consent was obtained from the patient.

We used the **Thomas-Stonell and Greenberg Drooling Severity and Frequency Scale (DSFS)** as a measure of outcome to quantify severity of sialorrhea.

The patient's caregiver was administered surveys prior to injection and then 4 weeks after injection.

IncobotulinumtoxinA injection was administered to the middle of the glands by an experienced senior radiologist using ultrasound in order to improve injection accuracy. A total of 100 units, 20 units each to the bilateral submandibular and 30 units each to the bilateral parotid glands were injected **under ultrasound guidance**.

Results

The procedure was **well tolerated** by the patient. There were **no** immediate and/or late **complications**. **No side effects** were observed.

The effects of incobotulinumtoxinA were observed 10 days after the procedure took place. The patient had **clinically significant improvement** in drooling between 9 to 4 DSFS total points.



Conclusions

Echo-guided injection of **incobotulinumtoxinA** into the **salivary glands** is **safe**, **effective**, **repeatable**, and **well tolerated**, **without complications and/or side effects**. These limited results are promising, especially given that this population is at considerable risk for morbidity and mortality (ie, aspiration pneumonia) from sialorrhea.

Bibliography

Thomas-Stonell N, Greenberg J. Three treatment approaches and clinical factors in the reduction of drooling. *Dysphagia*. 1988;3(2):73-78.

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