

Psychoeducation programme Session 1

Summary

- ❖ Surgical procedure
- ❖ Post-operative follow-up
- ❖ Post-operative expected results

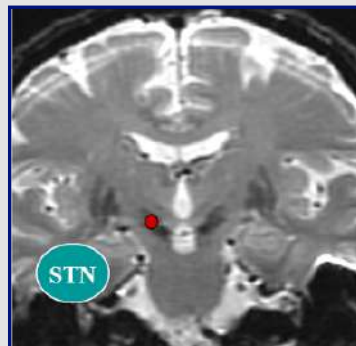
1. Surgical procedure

Stereotactic targeting

The day before surgery

- Stereotactic frame under local anesthesia

- Brain MRI



Surgery

Under general anesthesia

Pictures of the drill hole

Stereotactic frame and microelectrode recordings

Pictures of the patient with the frame and microdrive

Neuronal recordings

Pictures of the microdrive on the patient's head

The subthalamic neuronal activity confirms the correct targeting

Microelectrode descent



Neurological testing

Peri-operative stimulation and testing in awake patient

Pictures of the per-operative neurological testing

Clinical effect:

- Rigidity
- Akinesia
- Tremor

Implantation of the definitive electrodes

Best clinical effect

Pictures of the implantation of the definitive electrode

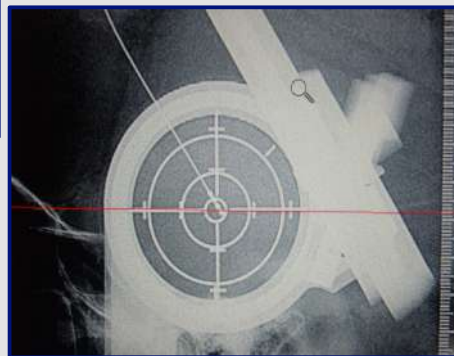
Electrode fixation

Radiological control

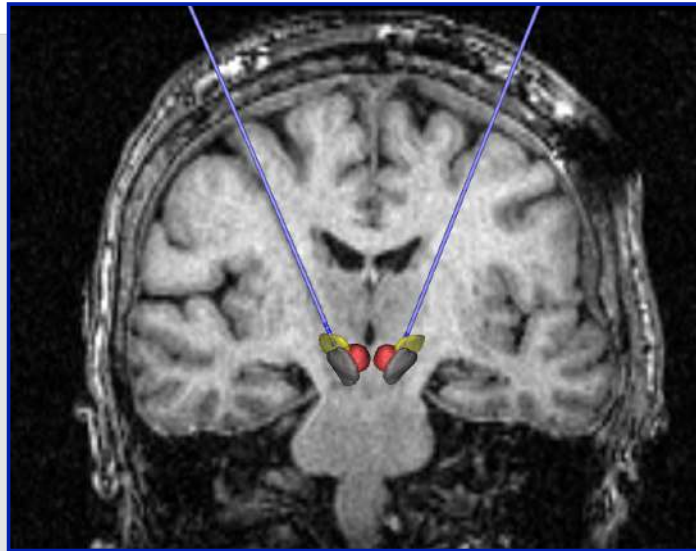


Definitive electrode position

During the microelectrode descent



Post-operative radiological control



Video of the surgical procedure

Neurostimulator implantation

- Under general anesthesia
The same day or few days later
- Connected to the electrodes with cables
- Localised within the subclavicular area



Surgical complications

Rare = 2 to 5%

Usual with (brain) surgery

- Infection (5%)
- Brain Hemorrhage (0,5%)
- Epilepsy

2. Post-operative follow-up

Parameter settings

- During hospitalisation
 - Transient lesioning effect
 - First parameter settings during hospitalisation
 - Concomittant reduction in the medical drug treatment dosage
- Outpatient visit follow-up
 - Progressive adjustment of parameter settings
 - Progressive optimisation of medical drug treatment

Description du programmeur
 Identification des composants

La face arrière du programmeur N'Vision comporte le module de télémétrie et un aimant (facultatif), l'enrouleur du câble du module de télémétrie, le haut-parleur et le compartiment de la pile (Figure 2-2). Le stylet est rangé dans un renforcement du côté droit de l'appareil.

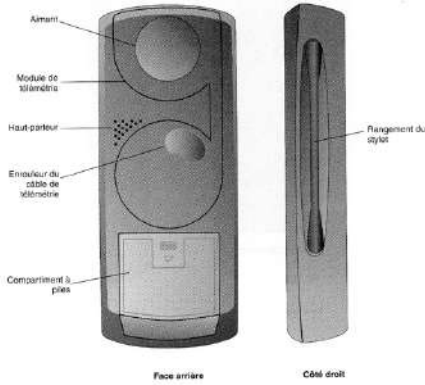
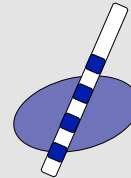
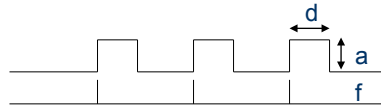
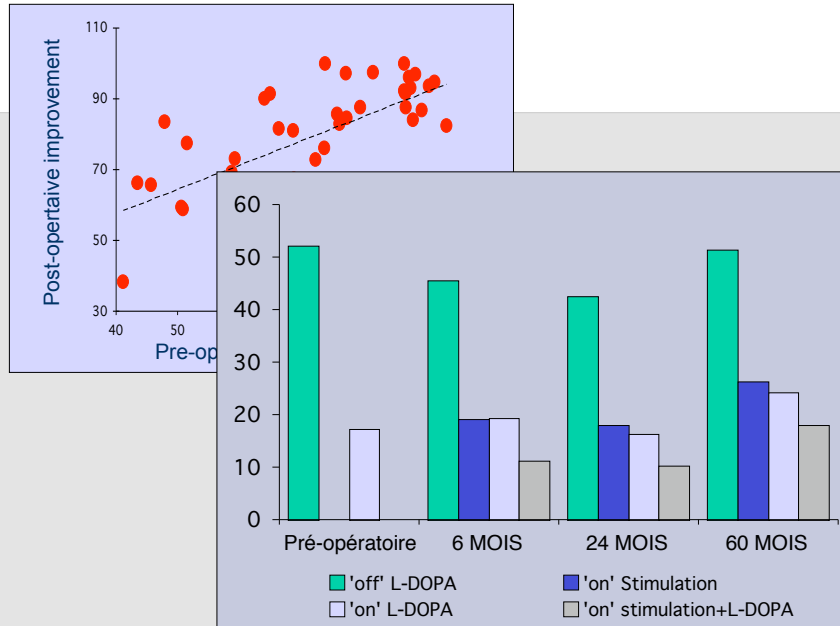


Figure 2-2. Vues de la face arrière et du côté droit du programmeur N'Vision

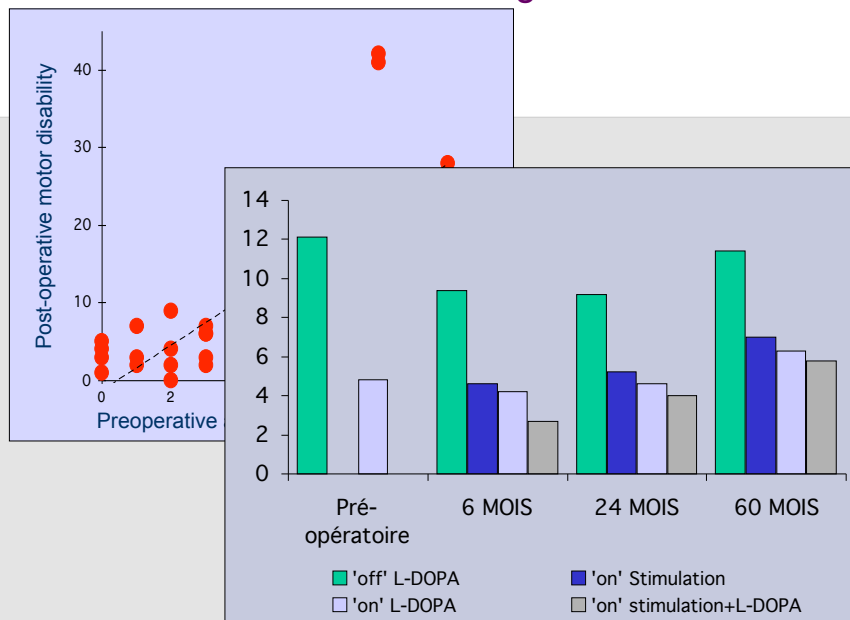


- Contact
- Frequency (f)
- Pulse width (d)
- Amplitude (a)

Motor disability



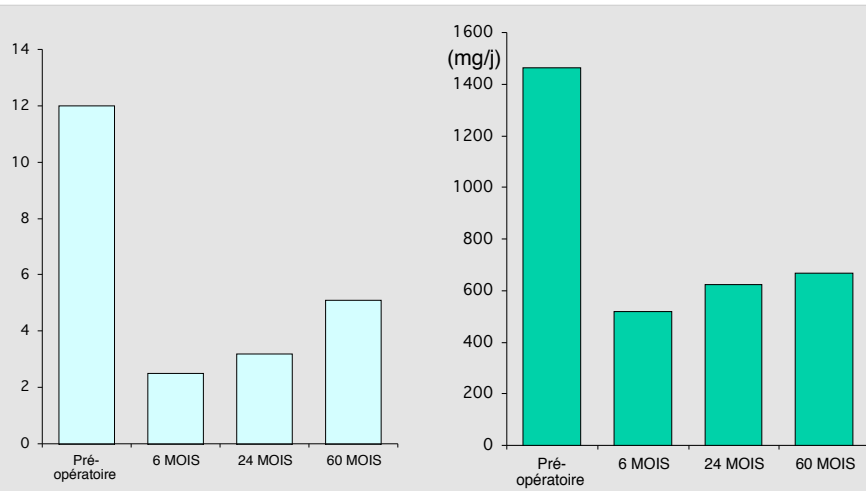
Axial motor signs



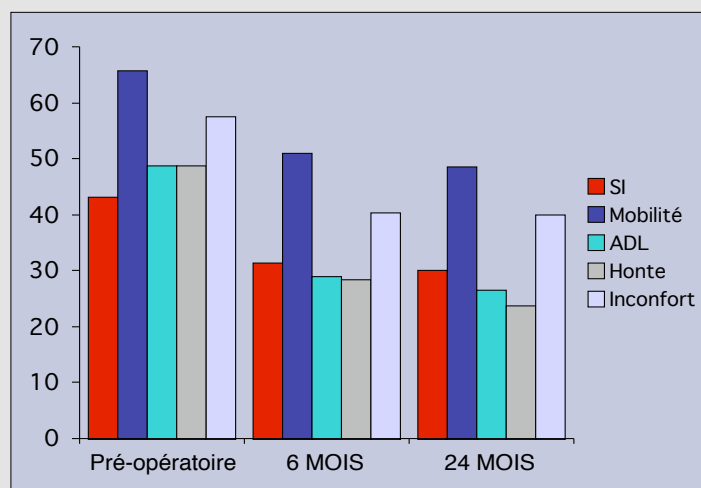
Predictors of good post-operative outcome

- 1) Young age
- 2) Excellent response to levodopa treatment
- 3) No or few axial motor signs unresponsive to levodopa treatment : gait and balance disorders
- 4) No cognitive decline

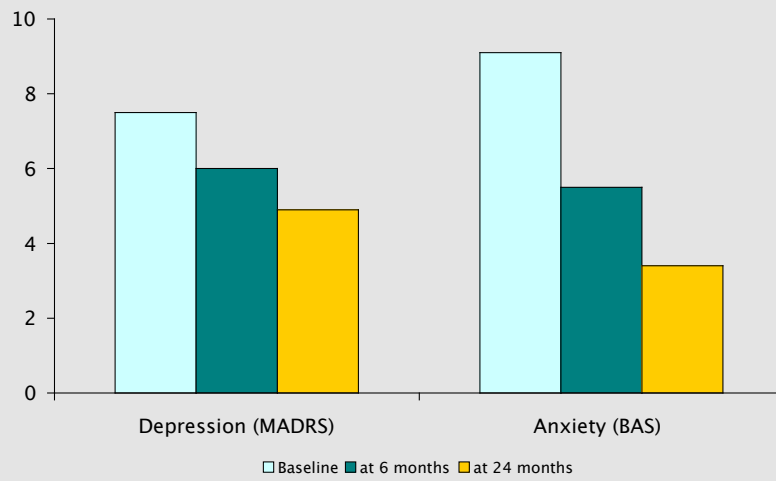
Levodopa related motor complications and drug treatment



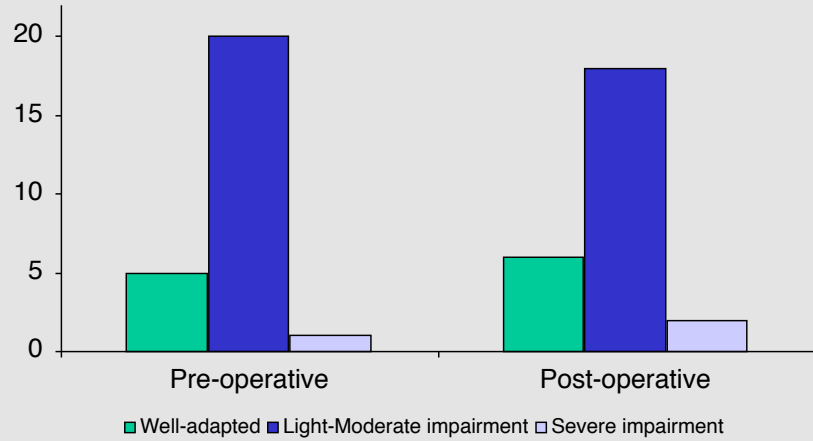
Quality of life



Depression and Anxiety



Social adaptation



Side-effects

- Weight gain (+ 5kg)
- Eye lid apraxia
- Apathy
- Hypomania
- Dysarthriae
- Rare
 - Psychiatric decompensation
 - Severe dyskinesias

**Video of a patient with
apathy, and his spouse**

Video of a patient with hypomania

Weaknesses

- Aggravation of axial motor signs
 - Freezing of gait and postural instability
 - Dysarthria
 - Swallowing disorders

- No impact on disease progression

Neurostimulator replacement

- Every 5 to 7 years
- During a short hospitalisation
- Under local anesthesia (if possible)

Psychoeducation programme Sessions 2-3-4

EXPECTATIONS

Social and professional life

REALISTIC

UNREALISTIC

**Video of a patient relating
social difficulties**

Today, having friends is for me.....

Very important

Not important at all

After surgery, having friends will be for me.....

Very important

Not important at all

Today, working is for me.....

Very important

Not important at all

After surgery, working will be for me.....

Very important

Not important at all

EXPECTATIONS

Familial life

REALISTIC

UNREALISTIC

**Video of a patient relating
familial difficulties**

Today, my family life is.....

Easy

Very difficult

After surgery, my family life will be.....

Easy

Very difficult

EXPECTATIONS Life as a Couple

REALISTIC

UNREALISTIC

Video of a patient and spouse relating couple difficulties

Today, my life as a couple is.....

Serene

Conflictual

After surgery, my life as a couple will be.....

Serene

Conflictual
