

# Treating Parkinson's Disease with Scalp Acupuncture

Scientific study on the efficacy of Acupuncture through Dopamine and Dopaminergic stimulation to increase the Activity of Parkinson's patients in everyday life (ADAPt)



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## Background

Yamamoto New Scalp Acupuncture (YNSA) was developed in Japan in 1973 by Toshikatsu Yamamoto. The method is based on a somatotope, in which the entire organism is projected on a defined area of the scalp. Here the focus lies on the Y-points, which represent meridians and which are located temporal. In 2006 a new point, the ZS-point (Zeise-Suess), was discovered in the region of the Y-points, at first on the Yin-side and then later on the Yang-side of the scalp. In 2013 it was proven by Zeise-Suess through laboratory chemical analysis that prolactin can be lowered just as efficiently with acupuncture of the ZS-point on the Yang-side as with bromocriptine treatment (dopaminergic substance, 1974 Calne et al). Parkinson's Disease was described by James Parkinson in 1817. It is the most common chronic neurological disease in the world with 4.100.000 (2014) patients currently affected. There are many symptoms in the cognitive, psychological and motor skills areas. The etiological cause of the disease lies in the substantia nigra and the core areas of the caudate nucleus (control of arbitrary movements), the putamen and the nucleus accumbens as the mesolimbic system, where the "reward system" is controlled. Drug therapy is performed among others with dopamine and with dopaminergic substances.

## Introduction

The hypothesis of this work is, that both ZS-points form an independent somatotope. Acupuncture here has an effect on the midbrain: Acupuncture of the ZS yin-point activates the body's own dopamine, whereas acupuncture of the ZS yang-point has a dopaminergic effect. This hypothesis is supposed to be backed up by a controlled study of 60 patients.

## Methods

30 patients (verum), 30 patients (controls), observation period of 12 weeks (2015)

**Inclusion criteria:** Subjects diagnosed with Parkinson's disease for at least one year, aged 18-85 years, ability to walk, current regimen continued, capable of keeping appointments, and able to fill out questionnaires. **Exclusion criteria:** Subjects confined to bed, treated in any way with acupuncture within 4 weeks prior to start of the study, recent change in medication

## Material

Acupuncture needles TEVA 0.30/30 standardized room temperature, interviewer, GP (acupuncturist),

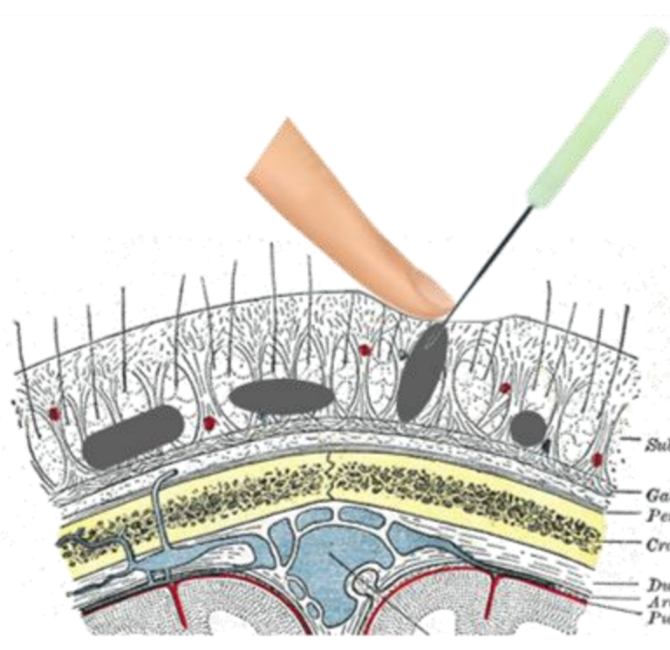


Figure 2: How to needle

questionnaires PDQ39 and UPDRS, part I and II. Identical are: Site, time of day, maximum time with GP: 5 minutes

## Procedure

10 times acupuncture (verum group) at the ZS-somatotope, once per week. Before start and after end of the study patients have to complete the PDQ39. A each acupuncture session: Interview UPDRS, part I and II, then acupuncture, rest for 25 minutes, remove needles. 2nd UPDRS, part I and II are handed out to be filled out by patients on the fourth day of acupuncture and handed in during the next treatment. The control group only has to fill out the PDQ39 at the start and end of study.

## Results

The results are presented in diagrams using the UPDRS (I+II) and the PDQ39 questionnaires.

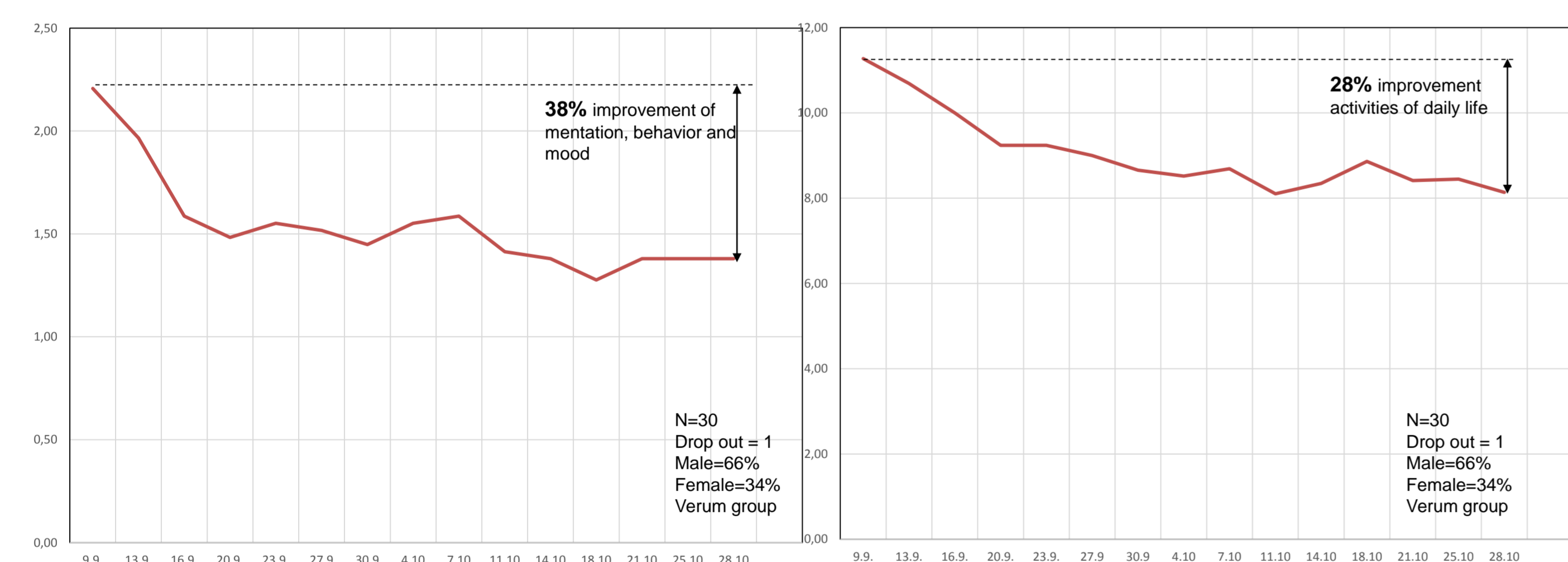


Table 1: UPDRS I - Cognitive functions, behavior and mood

Table 2: UPDRS II - Activities of daily living

**UPDRS I:** From an average initial score of 2.21 the value for the cognitive disorders dropped to 1.97 after the first acupuncture, after the 3rd acupuncture to 1.59 and leveled off with a slight improvement during the course to 1.38.

This is an improvement of **38 %**

**UPDRS II:** From an average initial score of 11.28 for motor dysfunctions the values decreased more slowly yet continuously within the first 4 treatments and leveled off still slightly decreasing to a value of 8.14.

This is an improvement of **28 %**.

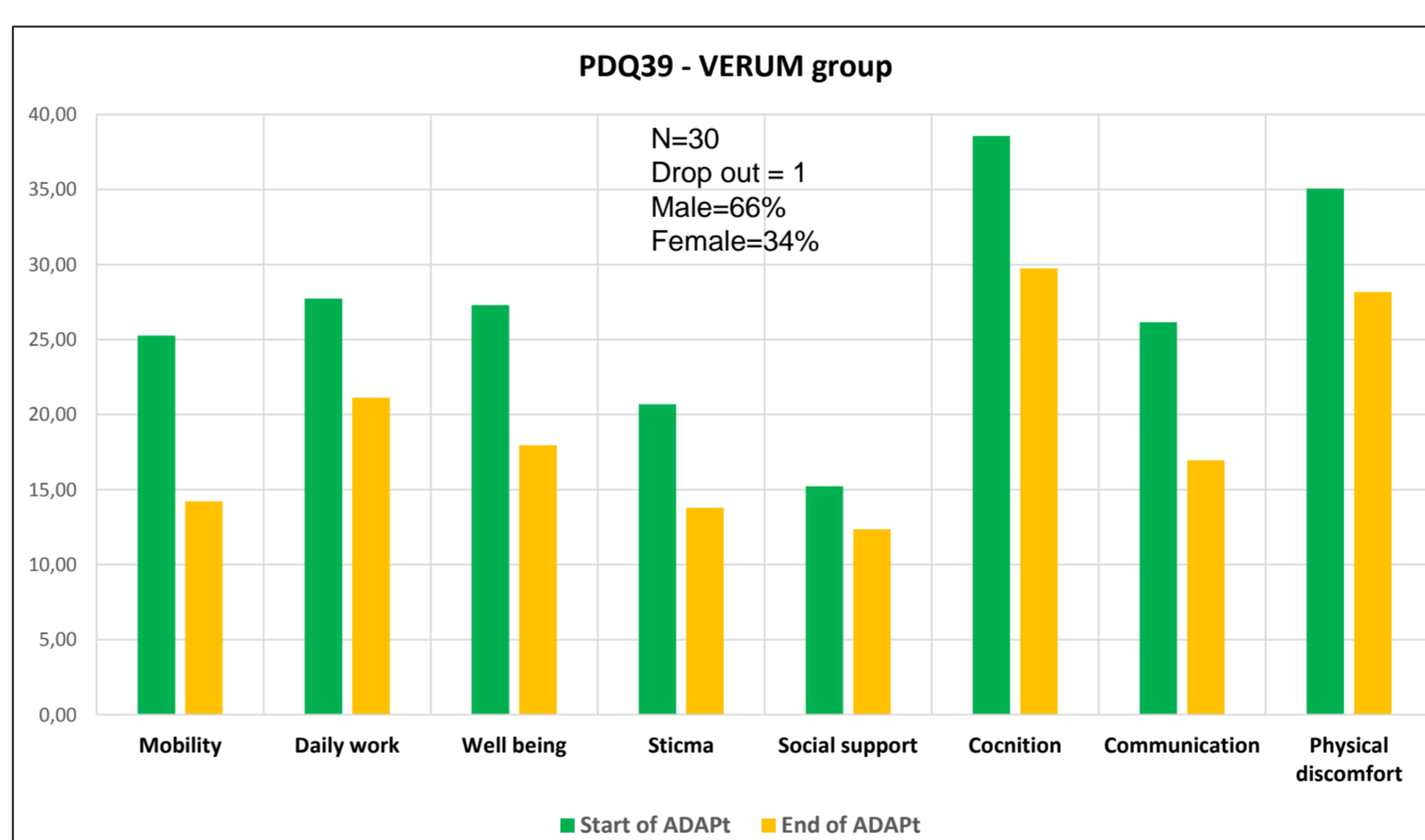


Table 3: PDQ39 - Verum group

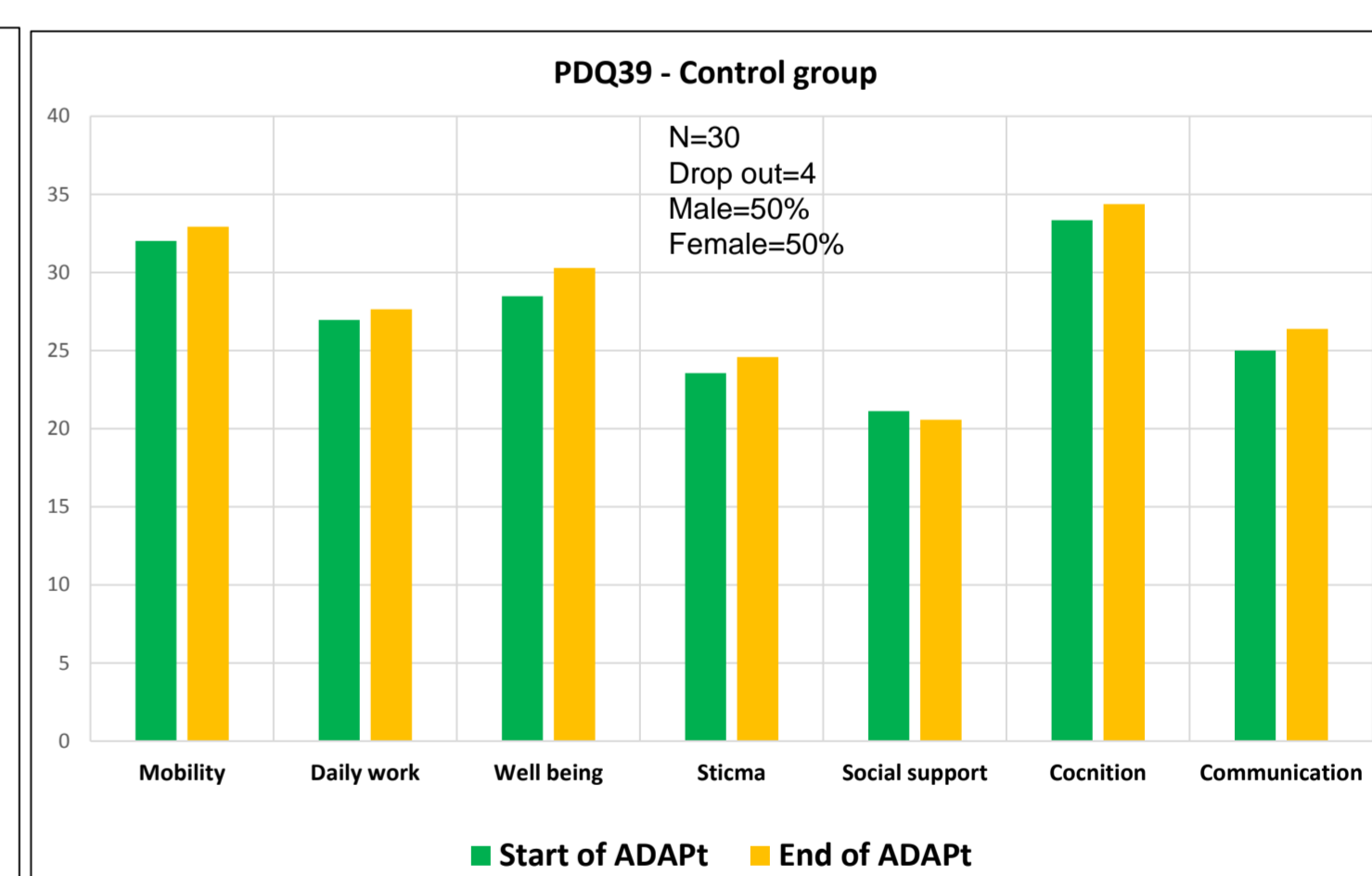


Table 4: PDQ39 - control group

**PDQ39:** In the verum group in all requested restrictions, a significant improvement is to be measured.

	Start of ADAPt	End of ADAPt	Improvement
Mobility	25,26	14,22	44%
Daily work	27,73	21,12	24%
Well being	27,30	17,96	34%
Stigma	20,69	13,79	33%
Social support	15,23	12,36	19%
Cocnition	38,58	29,74	23%
Communication	26,15	16,95	35%
Physical discomfort	35,06	28,16	20%

Table 5: PDQ39 - verum group → Improvements

**PDQ39:** In the control group no significant changes between the start and end of the study is to be measured.

	Start of ADAPt	End of ADAPt	Improvement
Mobility	32,00	32,92	-3%
Daily work	26,94	27,64	-3%
Well being	28,47	30,28	-6%
Stigma	23,54	24,58	-4%
Social support	21,11	20,56	3%
Cocnition	33,33	34,38	-3%
Communication	25,00	26,39	-6%
Physical discomfort	33,89	34,72	-2%

Table 6: PDQ39 - control group → No improvements

## Comments

To our knowledge this is the first time patients with Parkinson's disease were treated with scalp acupuncture according to Yamamoto. The objective is to reduce drugs for minimizing side effects, which are very uncomfortable. These results are achieved with acupuncture in only two points as defined in the study.

An even better result can be expected if scalp acupuncture is performed to target the other symptoms.

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## Literature

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Hilde-Ulrichs Stiftung fuer Parkinson in Germany