Comparison Of Mimic Changes Before And After Ventriculoperitoneal Shunt İn Patients With Normal Pressure Hydrocephalus

S. Ozturk [1], I. Dolas [1], T.C. Unal [1], D. Dolen [1], A. Sencer [1], A. Aydoseli [1], Y. Aras [1], P.A. Sabancı [1]

1 Istanbul University, Istanbul Medicine Faculty, Neurosurgery Department Istanbul, Turkey

EANS2023 Barcelona

PURPOSE / OBJECTIVES

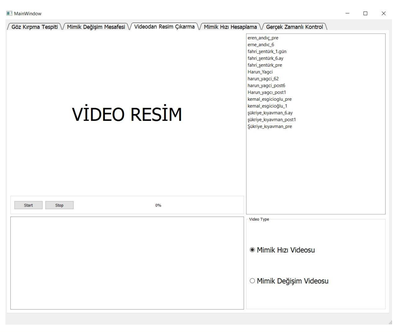
Normal pressure hydrocephalus(NPH) is chronic steadily progressing disease. It is manifested by specific triad of symptoms: gait disturbance, cognitive disorders and urinary incontinence. However, mimic movements correlation with NPH is unknown. We think that NPH also changes mimic movements and there is an improvement in mimic movements after surgery. The aim of this study is to compare whether there is change in mimic movements before and after surgery in NPH patients.

MATERIAL & METHODS

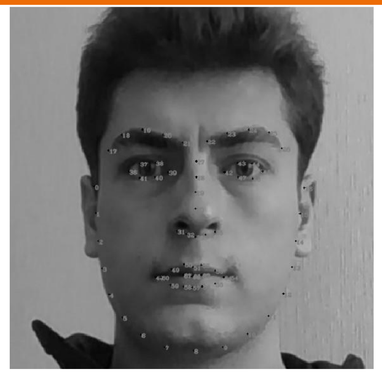
4 patients with normal pressure hydrocephalus newly diagnosed in our clinic were included in the study. Videos of these patients 1 day before, 2 days and 6 months after the planned operation were taken in the video room with a standardized procedure. These videos were uploaded to ITF Mimic change program developed by authors. This program allows us to mark 68 pre determined specific points and the coordinates in the face. It can detect changes in coordinate points. Pre and postoperative comparisons of points that may be associated with laughing, such as corner of mouth, and number of blinks were examined.

ITF MIMIC CHANGED PROGRAM



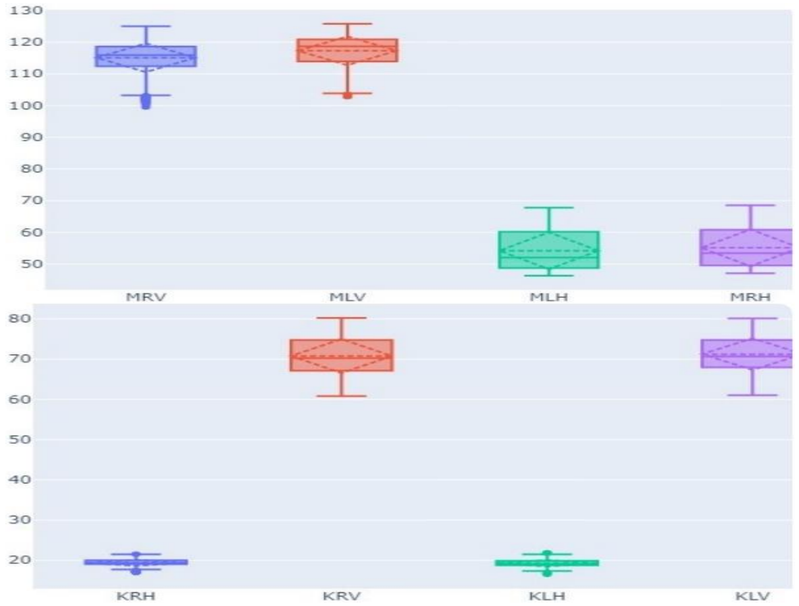


MIMIC CHANGED SYSTEM



Point Number,	x,	y
0,	104,	220
1,	109,	259
2,	119,	296
3,	129,	334
4,	142,	369
5,	166,	400
6,	195,	427
7,	229,	448
8,	269,	453
9,	307,	447
10,	339,	423

DOES NORMAL PRESSURE HYDROCEPHALUS HAVE AN EFFECT ON MIMIC MOVEMENTS?



RESULTS

In the videos of the patients 6 months after the operation, significant ($p<0.05$) increase was observed in the maximum range of motion of modiolus and number of blinks compared to preoperative period. However, there was no significant difference in eyebrow and eyelid movements compared to pre-operative period.

BLINK COUNT SYSTEM



SUMMARY / CONCLUSION

There are many studies on the regression of patient's walking, urinary incontinence and imbalance complaints after ventriculoperitoneal shunt treatment in NPH patients. However, there is no study on changes in mimic movements in NPH patients. Our study shows that there is significant increase in smile expression and number of blinks in NPH patients compared to preoperatively. One of limitations of study was that the study was not performed on more patients with longer follow-ups.

CONTACT INFORMATION

Sefa OZTURK

Istanbul University, Istanbul Medicine Faculty, Neurosurgery Department Istanbul, Turkey

E-mail: drsefaozturk@hotmail.com