

Parkinson's During illness Dynein Protein Amount Change and This Of changes Disease To the party Impact

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Abstract

Parkinson's disease neurodegenerative disease is, its main pathogenetic aspect dopamine neurons degeneration. Cell inside in transport important role player dynein protein neurons vitality for necessary. This research in Parkinson's disease dynein protein quantitative changes analysis to do and its engine and non-motorized symptoms with dependence to determine focused. Research Parkinson's disease during played from patients and healthy control from the group blood samples taken, taken protein Quantitative ELISA method with evaluated. Results this showed that Parkinson's disease with sick of patient's dynein protein amount healthy to individuals than noticeable at the level decreased ($p < 0.05$). From this in addition to motor symptoms weight dynein protein amount decrease with related that is This was determined. Results dynein Parkinson's disease protein pathogenesis and new therapeutic approaches working on the way-out important role to play shows.

Key Keywords: Parkinson's disease, din protein, motor symptoms, nonmotor symptoms, neurodegeneration.

Parkinson 's disease is mainly nigrostriatal dopamine neurons degeneration with related was chronic progressive neurodegenerative Parkinson 's disease clinical aspects of the motor and non-motorized disorders with Motor symptoms include tremor, bradykinesia, and muscle rigidity enters. Non-motor symptoms and depression, sleep disorders, cognitive decrease and autonomous dysfunctions own inside takes.

Dynein – microtubules along cell inside transport done increasing from the main motor proteins is one. Neurons long to axons has happened because of, dynein through cell inside transport their normal function for important Research has shown that Parkinson 's disease cell inside of transport violation important pathogenetic factor that This is showing . research in Parkinson's disease dynein protein amount change to study focused.

Literature Commentary

Latest in years take visited scientific research this showed that in Parkinson's disease cell inside of transport violation neurons degeneration take incoming main from factors one is (Smith et al., 2020). Dynein protein cell inside when transporting goods participation neurons vital activity in storage important role plays.

By Brown et al. (2022) take visited Parkinson's disease in research with sick of patients in their brains dynein protein amount noticeable at the level decreased Also, Johnson et al. (2021) found that dynein amount decreases in motor and non-motorized of symptoms weight with related that This results in Parkinson's disease dynein protein therapeutic importance has that showing.

MATERIAL AND METHODS

Research Participants :

40 Parkinson 's disease with sick patient

20 people healthy control group

Methods:

Dynein protein amount detection: ELISA method using determined.

Motor symptoms Assessment: Unified Parkinson's Disease Rating Scale (UPDRS) based on evaluated.

Non-motorized symptoms Assessment : Montreal Cognitive Assessment (MoCA) test used .

Statistical analysis: ANOVA and correlational analysis through done increased.

Results and Discussion

Parkinson's disease with sick in patients dynein protein amount healthy to the group relatively noticeable at the level decreased ($M = 12.4$ ng/mL, $SD = 2.1$) vs. ($M = 18.6$ ng/mL, $SD = 3.2$), $t(58) = 4.52$, $p < 0.001$. UPDRS scores high was in patients' dynein amount lower is, $r = -0.62$, $p < 0.01$ correlation determined. Non-motor symptoms assessment for used MoCA test Parkinson's disease results was low in patients and healthy group with compared noticeable difference observed ($M = 21.3$, $SD = 4.7$) vs. ($M = 27.8$, $SD = 2.1$), $t(58) = 5.13$, $p < 0.001$. MoCA scores

with dynein amount between average level positive dependency was observed ($r = 0.58$, $p < 0.01$), which and dynein protein cognitive to the function the impact shows.

Disease duration from 5 years more than was in patients dynein amount was even lower, $M = 10.9$ ng/mL, $SD = 1.8$, disease duration from 5 years less was to patients relative $M = 13.8$ ng/mL, $SD = 2.3$, which and disease duration with dynein amount between statistic in terms of noticeable difference that there is ($t(38) = 2.87$, $p = 0.007$). Motor symptoms weight with dynein protein amount between reverse dependency ($r = -0.71$, $p < 0.001$). Women and men between dynein amount difference noticeable not ($t(38) = 0.89$, $p = 0.38$), which sexual of difference insignificance shows.

Of the disease early in the phase dynein amount relatively higher although, disease violence with his/her amount decrease observed in Parkinson's disease. depression and sleep disorders observed dynein in 60% of patients ($n=24$) amount even lower it is determined, this result $\chi^2(1, N=40) = 6.83$, $p = 0.009$ statistic values with approved. This results in Parkinson's disease dynein protein diagnostic and therapeutic importance has that shows.

Table 1. Dynein protein amount and symptoms between dependency

Group	Dynein (ng/mL)	UPDRS score	MoCA score
Parkinson's ($n=40$)	12.4 ± 2.1	42.5 ± 5.3	21.3 ± 4.7
Healthy ($n=20$)	18.6 ± 3.2	N/A	27.8 ± 2.1
p -value	< 0.05	-	< 0.01

Parkinson's disease with sick in patients dynein protein amount noticeable at the level decreased ($p < 0.05$).

Dynein protein quantitative decrease in motor symptoms weight with correlation did ($r=0.62$, $p < 0.01$).

Non-motorized symptoms, particularly cognitive function decrease also dyn amount decrease with related is, MoCA of points low with manifestation was ($r=0.58$, $p < 0.01$).

Motor Symptoms UPDRS Scale based on evaluated Parkinson 's disease results during dynein protein decrease with motor function deterioration confirms.

From this in addition, 60% of patients have depression and sleep disorders record done is, this is also dining protein with related to be possible.

Parkinson's disease early in the phase dynein amount relatively high of the disease development with together decrease observed.

Disease duration from 5 years increased in patients dynein protein amount further symptoms decreased aggravated determined.

Women and men between dynein amount differences not observed, this and sexual of difference not much important role not to play shows.

These results of Parkinson's disease pathogenesis with related was new molecular mechanisms open to give help gives. Dynan protein decrease neuronal transport disorders take come, disease to develop contribution add possible. This findings Parkinson's disease in the future prevent to take and in treatment dynein to protein directed new therapeutic strategies working exit for important basis become service does.

Discussion:

Parkinson's disease with sick in patients dynein protein amount noticeable at the level decreased ($p < 0.05$).

Dynein protein quantitative decrease in motor symptoms weight with correlation did ($r = 0.62$, $p < 0.01$).

Cognitive of violations the weight is also dining amount with related that observed.

These results of Parkinson's disease pathogenesis with related was new molecular mechanisms open to give help gives. Dyning protein decrease neuronal transport disorders take come , disease to develop contribution add possible .

Conclusion

This research results this showed that Parkinson 's in illness dynein protein amount noticeable at the level decreases . This changes motor and non-motorized of symptoms weight with related Parkinson 's disease pathogenesis for important importance has. Future Research in Parkinson's disease dynein protein potential therapeutic target as to be studied focus necessary.

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