Three years follow up of 6-minute walk test and North Star Ambulatory Assessment in 30 ambulant DMD boys since the beginning of steroid treatment

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OBJECTIVE

Analysis and follow up of 6-minute walk test results and NSAA values while introducing the tests as obligatory outcome measures in neuromuscular patients.

MATERIALS AND METHODS

Methods: 6-minute walk test, North Star Ambulatory Assessment were performed by ambulant DMD boys aged 5 to 12 years, at baseline and 1, 2 and 3 years after initiating steroid treatment.

CONCLUSIONS

Our longitudinal follow up data presented the slower progression of the disease at younger age group and in the group with better initial functional findings. The exact mutational analysis has to be considered.

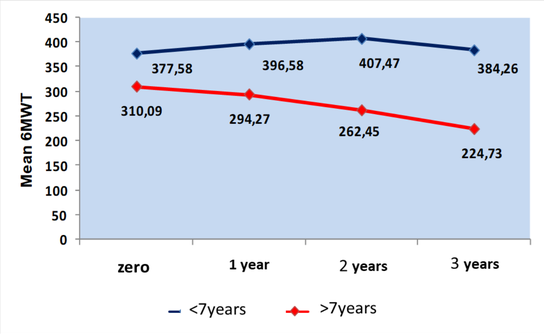
RESULTS

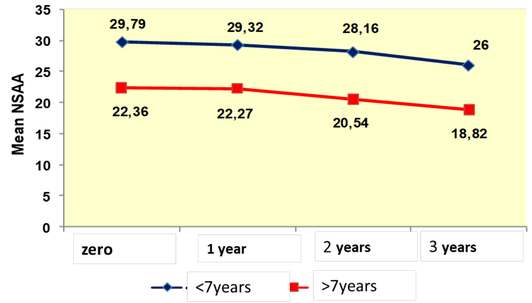
6MWT	Patients	Minimum distance	Maximum distance	Mean distance	(Std. Deviation)	p
DMD						
zero	30	255	525	352,83	56,92	Repeated measures ANOVA+: F(1.271, 36,865) = 9,213, p < 0.002*
1 year	30	232	550	↑359,07	72,45	
2 year	30	202	530	↓354,30	92,57	
3 year	30	165	510	↓325,77	101,53	
with a Greenhouse-Geisser correction				* p<0,05		

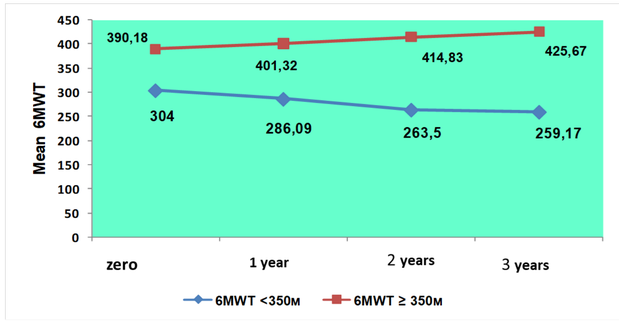
Trends of stagnation, slow or fast progression of the disease analysing minimal meaningful changes in distance passed at 6MWT (<30m/year) concerning age at the beginning and initially passed distance.

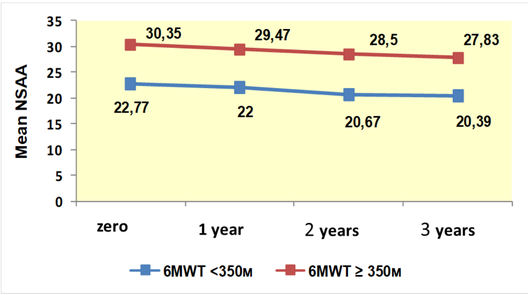
Lowering the NSAA score from 0,5 points to 4 points per year from the beginning of follow up and from younger to older age.

NSAA	Mean points	Patients	Std. Deviation	Minimum	Maximum	p
DMD boys						
zero	↓27,07	30	5,15	18	34	Fridman test: N=30 Chi-Square (3)=75,35 p=0,00001*
1 year	↓26,73	30	5,11	18	34	
2 years	↓25,37	30	5,33	16	34	
3 years	↓23,37	30	5,18	15	34	









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