



Methods (cont.)

- ❖ Design: RCT

- ✓ Phase I: 5 week double blind sham controlled treatment

- ✓ Phase II: 5 week open label active treatment

- ❖ Evaluation:

- ✓ Evaluation using CARS at baseline and post MRT weekly

- ✓ EEG evaluation at baseline and post MRT weekly

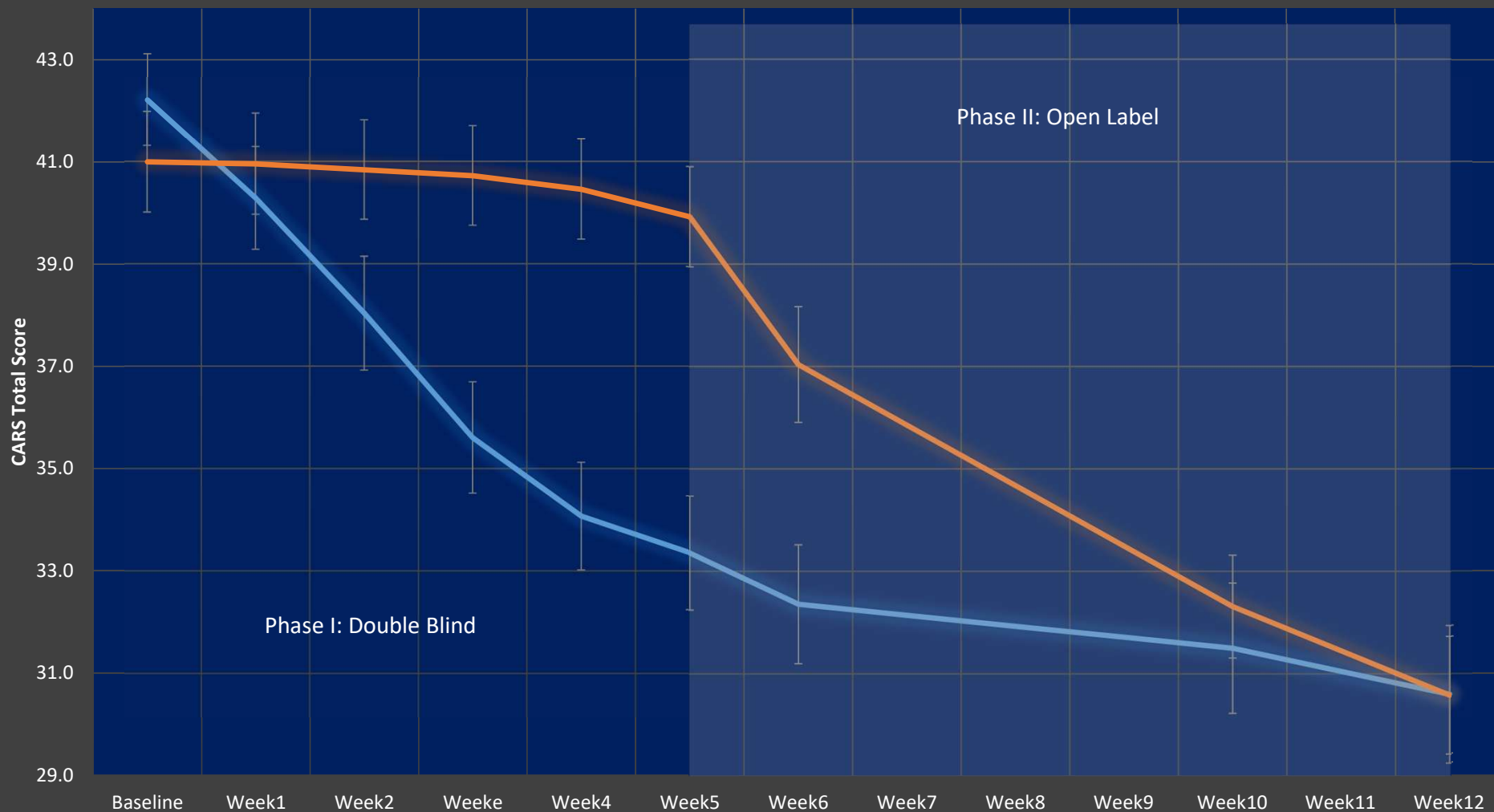


Results

1. 28 children with ASD completed Phase I study and 17 of them completed Phase II study.
2. 1 case was excluded from final analysis due to low CARS score at baseline
3. Age: 7.2 ± 2.3 years old
4. Gender: 4 girls, 23 boys
5. Clinical symptoms improved significantly in the double blind trial phase in MRT group while Sham group remained unchanged
6. Clinical symptoms continued to improve in both groups during the open label MRT treatment
7. 4 cases showed increase in excitement during the first week of treatment and subsided automatically
8. No SAE in any study subject
9. Visible EEG improvement (Data will be analyzed separately)

ASD Symptom Reduction after MRT

MRT Sham



Analysis of CARS Score Change over Time

Phase I

Phase II

		Mean	S.D.	N	F	Sig.
Week1	Sham	40.3	4.5	13		
	MRT	40.3	4.0	14	6.5	0.02
Week2	Sham	40.2	4.4	13		
	MRT	38.0	5.0	14	17.6	0.00
Week3	Sham	40.2	4.2	13		
	MRT	35.6	4.7	14	35.5	0.00
Week4	Sham	40.0	4.1	13		
	MRT	34.1	4.4	14	44.4	0.00
Week5	Sham	39.4	4.1	13		
	MRT	33.4	4.9	14	26.5	0.00
Week6	Sham	34.0	4.9	13		
	MRT	32.9	5.6	14	1.3	0.28
Week10	Sham	33.1	3.7	8		
	MRT	31.6	5.9	12	0.4	0.54
Week12	Sham	31.6	6.1	7		
	MRT	29.7	8.0	17	0.2	0.63

Phase I: ANOVA with Repeated Measure

Overall treatment effect $F = 34.2$, $p = 0.00$; Treatment by time: $F = 36.4$, $p = 0.00$

Neural Typical* Patients after MRT

Study Phase		Double Blind					Open Label		
Time	Bsln	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 10	Wk 12
MRT	0/14	0/14	0/14	2/14	2/14	6/14	6/14	8/12	6/10
Sham	0/14	0/14	0/14	0/14	0/14	0/14	1/13	4/8	4/7

Neural typical as CARS score drops below 30.

ASD Symptom Change following iTMS Treatment

