

CUMULATIVE STATISTICAL REPORT #01

MULTIPLE SCLEROSIS CASES

DATE: January 2011 - December 2013

AGE: 22 - 52 GENDER: Both NO: 41 patient

TREATMENT CENTER: Belgrade

GOAL: The goal of this MS Cumulative report is to assess the success of Stem cells treatment in multiple sclerosis patients at Swiss Medica Belgrade treatment center.

ENTRY DATA: 41 out of 59 patients treated from January 2011 to December 2013 willingly participated in this research by filling out the received questionnaire, rating the improvements in their symptoms. Analyzed symptoms are chosen by the effect they have on quality of life of a particular patient by his/hers own subjective opinion. Research included subjects with all types of MS.

SUBJECTS BACKGROUND

AGE/GENDER: 25 out of 41 subjects were Female (16 Men). Ten patients belong to 22-32 age group, 23 patients to 32-42 age group and 8 patients to 42-52 age group.

GENDER		AGE		
MALE	FEMALE	22-32	32-42	42-52
16	25	10	23	8
39%	61%	24%	56%	20%

GEO. ORIGIN: Most of our subject originated from Northern Europe (19), followed by participants from Northern Asia (7) and Southern Europe (7). Three patients from North America (3) took part in the research as well as two from Southern parts of Asia (2).

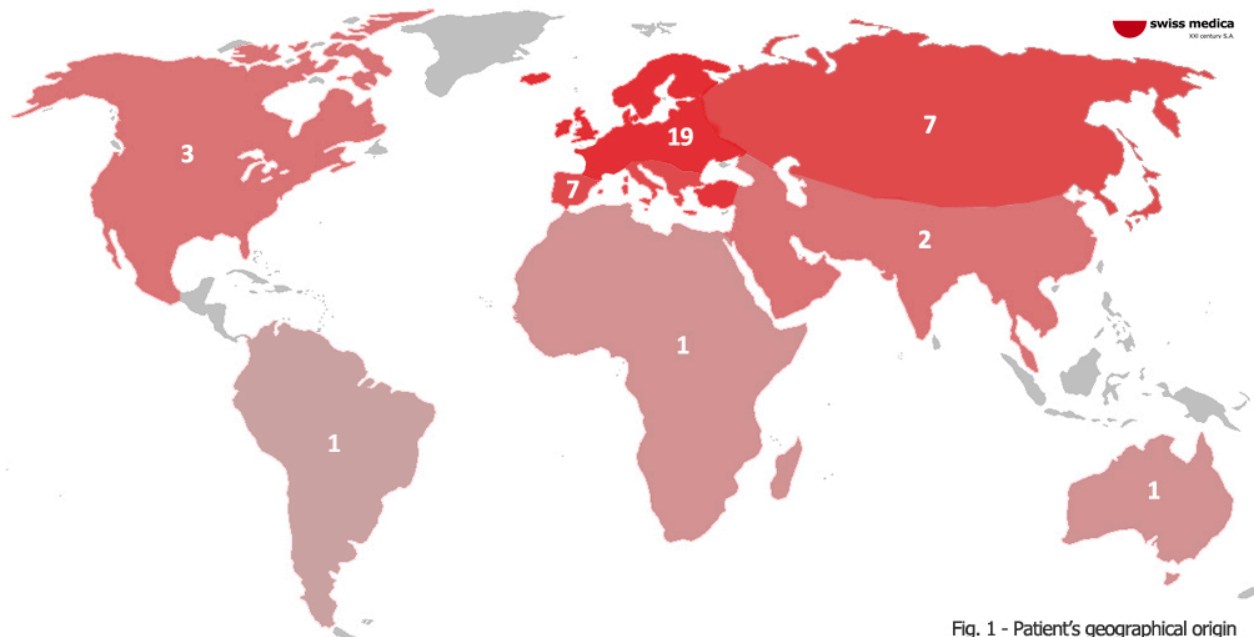


Fig. 1 - Patient's geographical origin

MS TYPE: 18 of our 41 subjects were diagnosed with Relapsing-remitting type; 11 with Secondary Progressive type; 7 with Primary Progressive type and 5 with Progressive Relapsing type of MS.

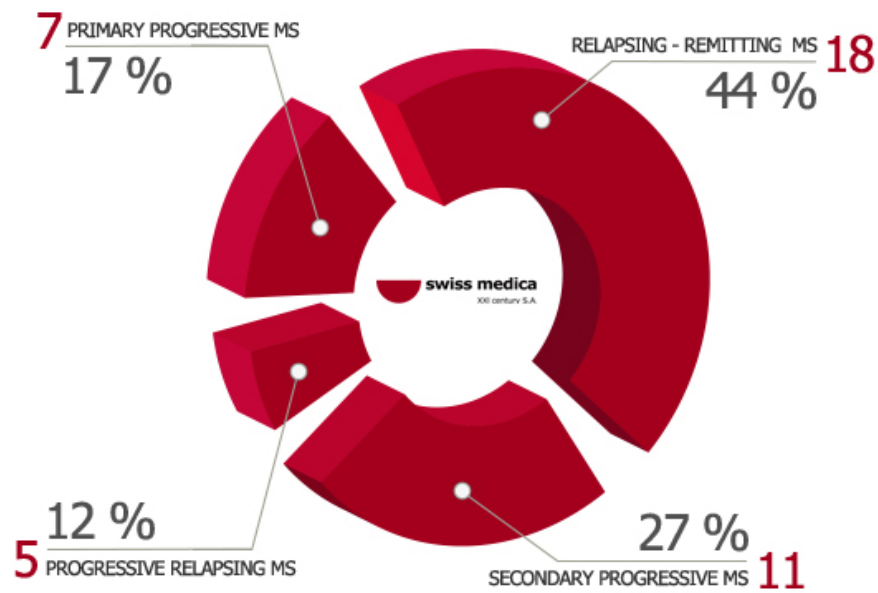


Fig. 2 - No. of patients by MS type

TREATMENT DATA

NUMBER OF TREATMENTS: Most of our subjects underwent only one (combined bone marrow and adipose) treatment - 37 patients. Three patients had 2, and one of them had to have 3 stem cell treatment procedures to achieve satisfying treatment results.

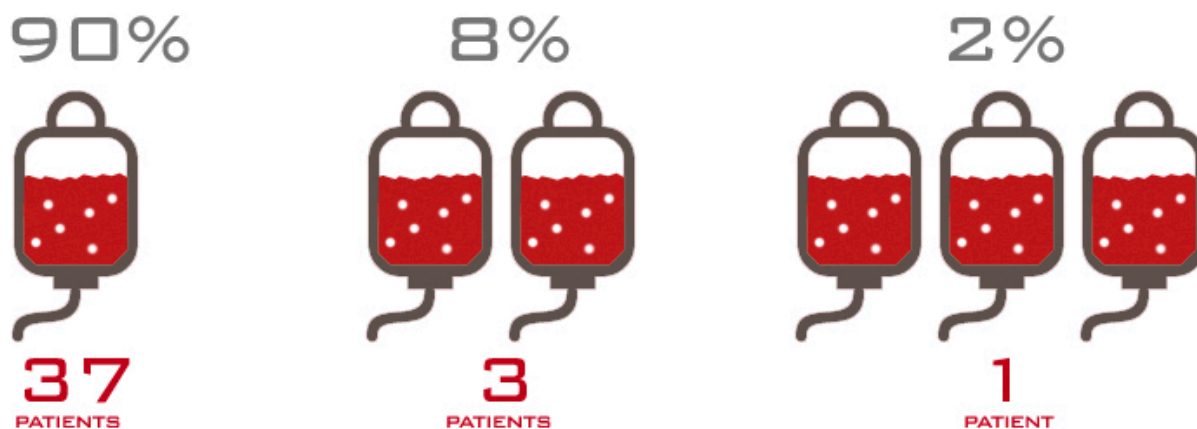
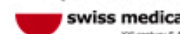
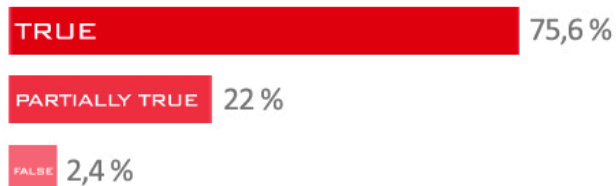


Fig. 3 - Number of procedures



EVALUATION OF ENHANCED TREATMENT PROCEDURES: Most of our patients feel that enhancement procedures and physiotherapy greatly augmented stem cell treatment results by improving symptoms relating to pain, balance, muscle stiffness, tingling, hand grip, energy levels, fatigue and depression.

Enhancement procedures additionally improved my condition.



Symptoms improved by enhancement procedures:

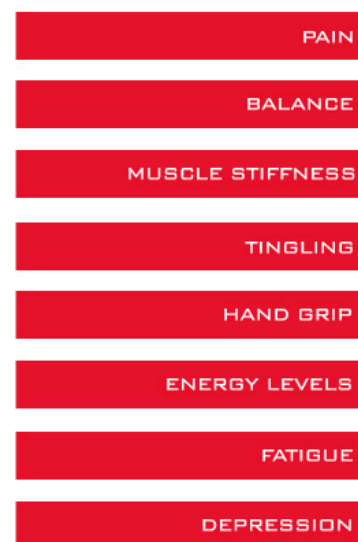


Fig. 5 - Enhancement procedures - patient's evaluation



IMPROVEMENTS: 38 of our subjects had significant improvements after Stem Cells treatment. One subject reported no improvements whatsoever, while two patients relapsed 6 months after the treatment: One due to excessive alcohol consumption by his own admittance, other experienced relapse due to an unknown cause.

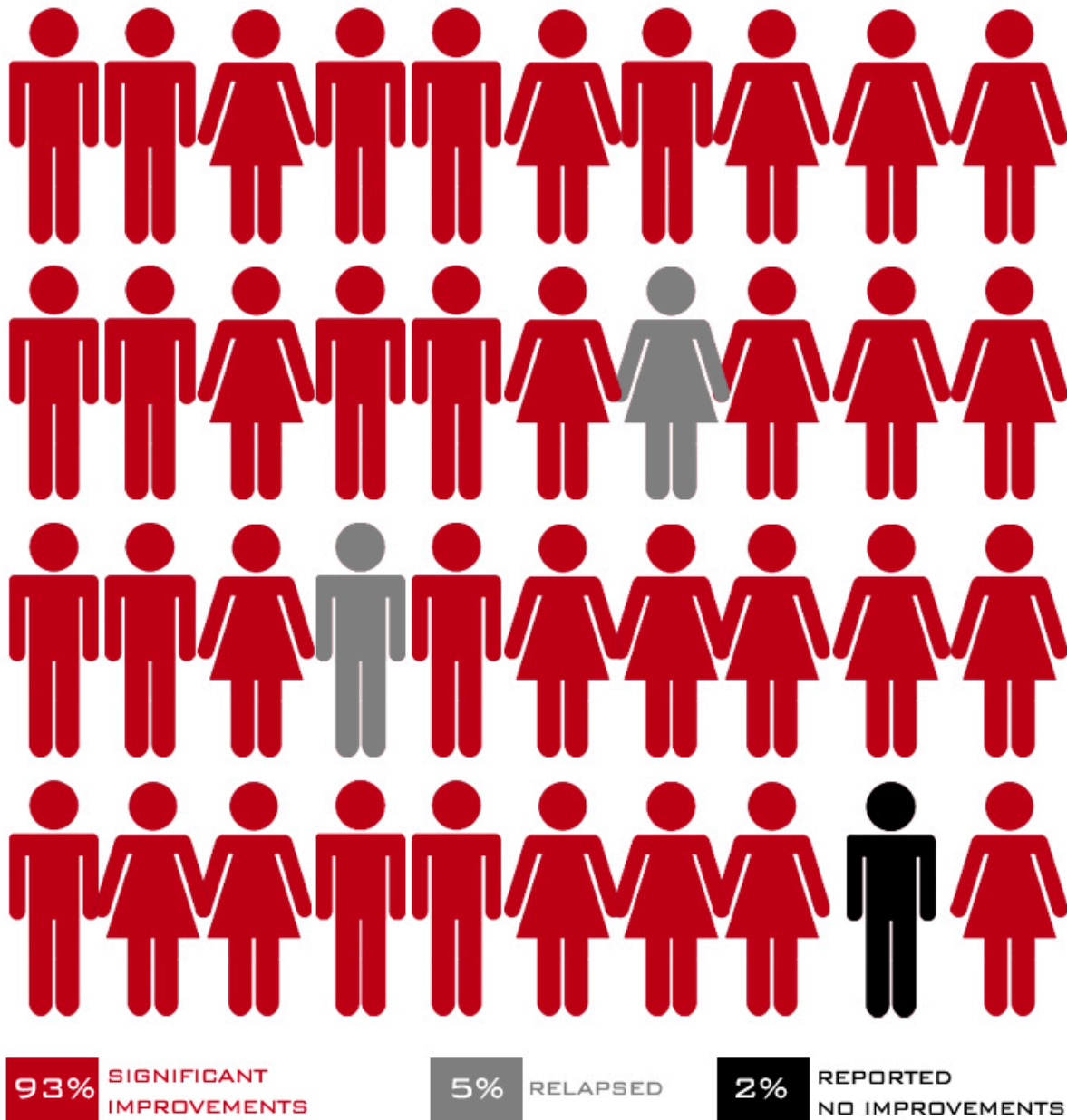


Fig. 4 - Improvements



IMPROVEMENTS BY SYMPTOMS: Our subjects rated improvements in their symptoms (grades: 1 through 10) immediately after stem cells treatment. Based on cumulative results, we can conclude that all of the symptoms improved significantly. Most improved symptoms were: Focus (average grade: 9.1), eye pain (9), memory (8.9), speech problems (8.8), sickness (8.1), pain (7.3), weakness (7.2), muscle stiffness (7.2) and headaches (7.1). Least improved symptoms are: Sexual dysfunction (average grade: 3.5) and dizziness (4).

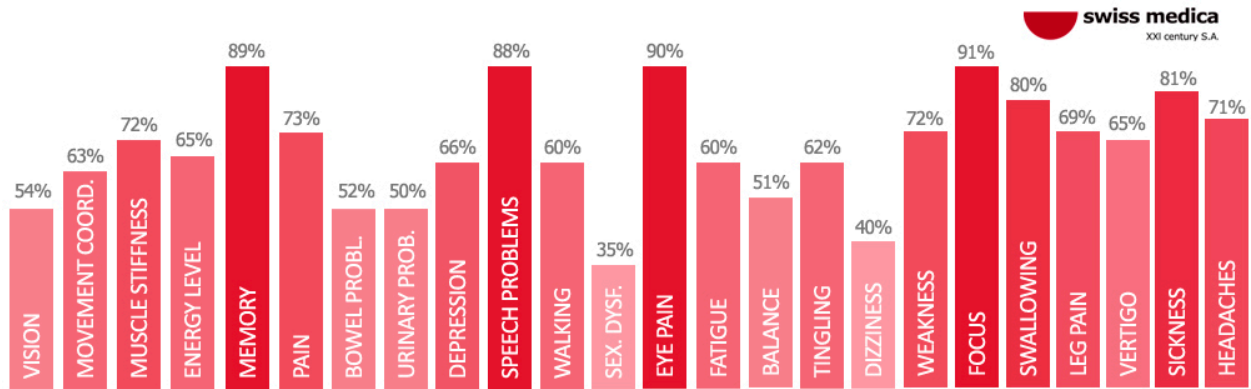


Fig. 6 - MS Symptoms improvements immediately after stem cells treatment

IMPROVEMENTS DEVELOPMENT: Our subjects rated same improvements in their symptoms on their first (3 months after treatment) and second follow-up (6 months after treatment). Based on those results, we can conclude that patient's condition mostly improves immediately after the treatment (average grade: 6.67) with additional minor but significant improvements 3 months (1.16) and 6 months (0.33) after the treatment.

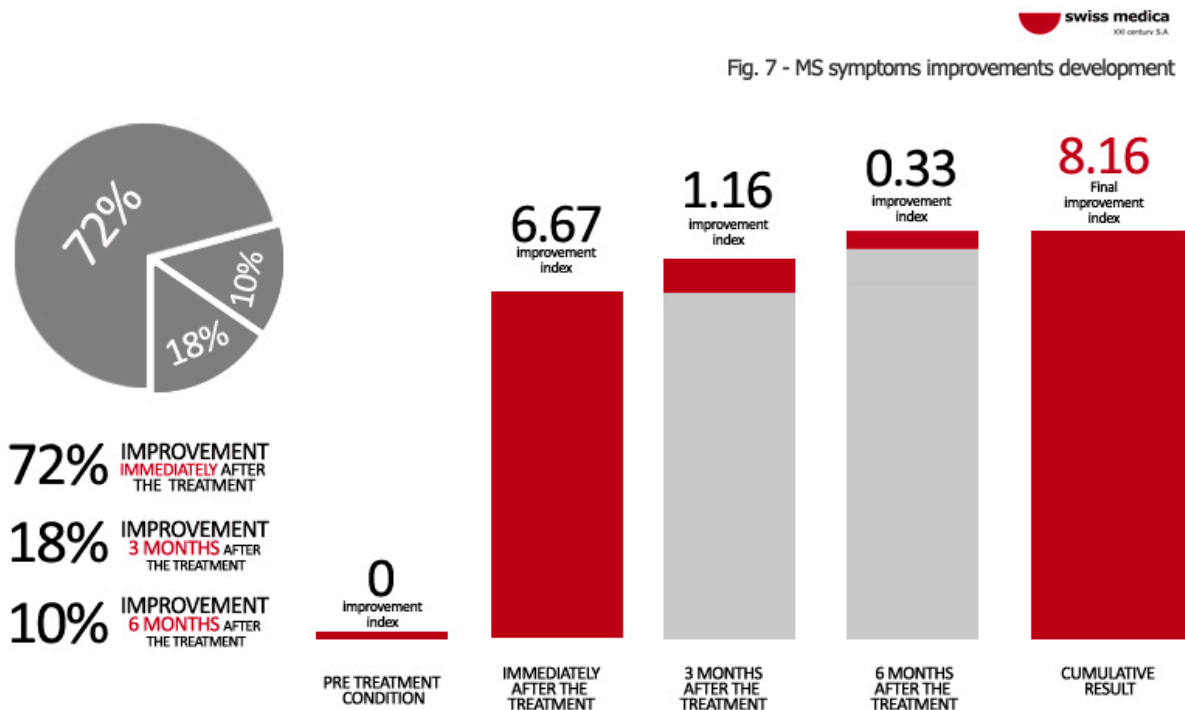


Fig. 7 - MS symptoms improvements development

CONCLUSION

Based on the patient's evaluation on the levels of improvement of their condition, we can conclude that Stem cells treatment for multiple sclerosis patients at Swiss Medica Belgrade treatment center can be considered highly successful.

Patient's own opinions are proving improvements in quality of life by improvements in symptoms that "bothered" them the most. Cumulative results of this research show that patients consider that stem cell treatment for MS improved their symptoms (on average) by **81,6 %**.

72% of those improvements occur immediately after the treatment with additional improvements up until 6 months after the treatment (when this research finished). Additional improvements are possible but are not covered by this research.